SHARP®

Proposal Form 2

Questionnaire
&
Evaluation Criteria

PROPOSAL FORM 2: QUESTIONNAIRE & EVALUATION CRITERIA

Instructions:
Respondents should incorporate their questionnaire responses directly into the green cells below. Failure to provide responses in this format may result in the proposal being deemed as non-responsive at the sole discretion of Region 10.

Respondents may incorporate additional documents as part of their response which may be utilized by Region 10 as part of the evaluation. Additional documents must be consolidated as part of this Section 2 at the end of your response.

Region 10 has associated the evaluation criteria with the question that most closely aligns with that respective evaluation criteria. Region 10 reserves the right at its sole discretion to base its evaluation and specific evaluation criteria on any part of the respondent's proposal.

Evaluation Criteria	Question	Answer
Basic Information		
Required information for notification of RFP results	*What is your company's official registered name?*	Sharp Electronics Corporation
	What is the mailing address of your company's headquarters?	100 Paragon Drive Montvale, NJ 07645
	Who is the main contact for any questions and notifications concerning this RFP response, including notification of award? Provide name, title, email address, and phone number.	Joe Gillio Manager Bid & Proposals gillioJ@sharpsec.com 201-529-9476
Products/Pricing (30 Points)		
Coverage of products and services	No answer is required. Region 10 will utilize your overall response and the products/services provided in Attachment B to make this determination	
Ability of offered products and services to meet the needs requested in the scope	No answer is required. Region 10 will utilize your overall response and the products/services provided in Attachment B to make this determination	
Competitive pricing for all available products and services, including warranties if applicable	*Does pricing submitted include the required administrative fee?*	Yes, the submitted pricing include the required administrative fee.
	Do you offer any other promotions or incentives for customers? If yes, please describe.	Sharp will provide additional price discounts for opportunities that exceed $100,000.
Ability of Customers to verify that they received contract pricing	*Were all products/lines/services and pricing being made available under this contract provided in the attachment B and/or Appendix B, pricing sections,*	Yes, all products/lines/services and pricing available under this contract has been provided in attachment B.

	including shipping, installation, and other peripheral costs/fees?	
Payment methods	*Define your invoicing process and methods of payments you will accept. Please include the overall process for agencies to make payments*	Customer invoicing may originate from Sharp headquarters in Montvale, NJ or locally by the Sharp authorized dealer. Sharp accepts payment via check or ACH.
Other factors relevant to this section as submitted by the Respondent	No answer is required. Region 10 will utilize your overall response and the products/services provided in Attachment B to make this determination	
Performance Capability (25 Points)		
Product and service features and capabilities	*Please provide a high-level overview of the products and services being offered and how they address the scope being requested herein.*	Sharp is proposing our full line of color and monochrome copiers and printers. These models are designed to help increase workflow efficiency and provide exceptional image quality. Known for being easier to operate, control, manage and maintain, these models are designed to provide customers with a seamless, intuitive experience and the confidence that jobs will come out right the first-time, every time. Sharp's Essential and Advanced Series MFDs focus on user operability and draw inspiration from the latest networking and imaging technologies available today. We will work closely with Region 10 customers to develop customized managed print solutions which offer flexibility to tailor their printing, scanning, copying, and document management needs to their specific requirements.
	Outline how your products and services compare to those of your competitors.	Sharp is recognized as a leader in the industry. Our commitment to providing advanced technology and unique features on our products allows us to provide our customers a best-in-class experience. Sharp is the first and only manufacturer to offer edge-to-edge printing on light production MFPs. Edge-to-edge printing enables operators to output high quality, full-bleed booklets in-line, helping to reduce outsourcing costs as well as production times. Sharp's exclusive solution uses 11 x 17 paper and automatically trims only one edge of the paper, producing a lower cost full bleed booklet. Other manufacturers accomplish this by printing on larger (12 x 18)

		paper which costs more than ledger paper and by using an expensive finisher that trims three sides of the finished booklet (slows print times). Not only does this type of paper trimming unit cost more, it also slows down the productivity of the device. PANTONE® colors are commonly found in logos, letterhead, and business cards. Traditionally to accurately reproduce these colors manufacturers would turn to a third party company for a specialized print controller. Sharp has taken a different approach. All Sharp 30+ page per minute color MFPs have the ability to match PANTONE colors. This unique approach saves customers money by not requiring a costly third party print controller. In addition, training time is saved as a result of not needing to train users on a different print driver while providing excellent color matching. Sharp addressed the need for data security by the introduction of optional data security kits that provided the ability to encrypt data residing on the device in addition to data overwrite, port management and administrator control of feature accessibility in addition to a firmware-based operating system that does not allow for vulnerabilities that would introduce harmful software. Sharp was the first MFP maker to be awarded a Common Criteria Validation for device security and remains the only MFP maker to have ever been awarded a Common Criteria Validation of EAL, Level 4. Sharp also received an innovation award from BLI for our integration of Fiery® Command Workstation® at the MFP panel. Utilizing a spacious 15.4”touch screen on our light production models, Sharp has chosen to offer more convenience while reducing costs for our customers. In the past a key operator would run a light production MFP and utilize a nearby PC running Command Workstation. This creates a lot of back and forth for the key operator to load paper, offload finished jobs and check on incoming print jobs. By giving key

		operators the convenience of running Command Workstation through the control panel, key operators are more productive. Competitive models require a costly FASCI Kit with an external keyboard which can cost as much as an additional $5,000.
	Outline any managed print services offered and any featured components such as device monitoring and consumables management.	Sharp Managed Print Services offer a complete menu of customized services for print fleets based on the client's specific needs. Not only do we support and service our own award winning line of print devices, but we also support existing or legacy print fleets, including all major manufacturers of single function office printers. Our methodology is to understand the customer's current environment, costs and their goals and objectives. Sharp's Managed Print Services includes all parts and labor and includes strategic planning and consultative services. We help our customers define, construct and publish an organization print policy in accordance with their goals and objectives; we assist them in evaluating and analyzing potential technology placements, creating an Approved Device Catalog, optimizing their fleet and ensuring standardization over the time frame needed. We provide a technology roadmap with specifics for planning both short-term and long-term initiatives. We help budget for those initiatives by providing the in-depth cost analysis of options, so our customers know the impact of their actions or inactions on a monthly, quarterly and annual basis.
	Outline any software solutions offered and applicable features such as document management, workflow optimization, and mobile and cloud integration.	Sharp provides a number of software solutions which optimize workflow and provide mobile and cloud integration. All BP 70-Series MFPs have standard connectors for OneDrive for Business, SharePoint Online, Google Drive, Box and Dropbox and Teams. In addition, they also have standard Email connectors for Gmail, Exchange Server and Exchange Online. Sharp's Synnapx Go allows users to easily scan documents and release print jobs from their mobile device. AirPrint Support and

		mobile application Sharpdesk Mobile helps optimize productivity by ensuring seamless printing while on the move. Sharp OSA (Open Systems Architecture) can link controls on the operation panel and device functions such as scanning to external Applications. Some of these include cloud fax services, document management, scan capture and routing, and external accounting software. Sharp MFPs natively support Microsoft Universal Print.
	Describe environmental and energy efficiency practices your organization follows such as end-of-life device removal and sustainability initiatives.	**Commitment to Environmental Efficiency** Sharp's Environmental Initiatives and dedication to developing energy efficient document systems set a high standard in the industry. Most Sharp MFPs utilize Sharp's advanced micro-fine toner technology, which offers a lower consumption rate and produces less waste than conventional toners, resulting in longer replacement intervals. Long-life consumable parts help minimize service intervals and down time, resulting in lower operating costs and all Sharp MFP supplies are packaged using fully recyclable materials. With two different energy saving modes, power can be reduced or shut off at set intervals. As Sharp strives for sustainable product design, it considers environmental friendliness a key factor in all stages of a product's life cycle, from design to manufacture to disposal. To this end, Sharp provides extensive recycling programs for its products and supplies. **Recycling Programs Toner/Ink Recycling Program** As part of its commitment to helping preserve the environment, Sharp offers customers free, zero waste to land fill recycling for all Sharp consumables, including cartridges, bottles, toner collection containers and drum units. Sharp encourages customers to recycle their used Sharp toner cartridges in bulk, to reduce our carbon footprint, by providing all collection and shipping materials with a

		pre-paid recycling kit for their return to our recycling facility. Visit www.sharpusa.com/recycle for more information. **End-of-Life Product Recycling** As part of Sharp's Super Green Strategy, Sharp provides our customers a recycling option for Sharp MFPs which have reached their end of life. All Sharp MFPs, with authorizing documentation, can be shipped to one of three regional Sharp recycling centers. Sharp will be responsible for all disposition and Zero-Waste-to-Landfill recycling costs associated with the disposition of Sharp equipment. **EPA's Plug-In to eCycling Program** The U.S. EPA's "Plug-In to eCycling" program has been a voluntary partnership with electronics manufacturers, retailers, recyclers and government agencies to reduce the environmental impact of electronic products during production, use, transport, recycling and disposal. Sharp is an inaugural participant and proud supporter of the EPA's e-cycling initiative and its Sustainable Materials Management Electronics Challenge Program.
	List the number and location of offices or service centers for all states being proposed in solicitation. Additionally, if your company does not offer all products and services in all 50 states, please describe any geographical limitations on any product or service offered.	Sharp Electronics has a multi-level approach to providing goods and services to our customers. Through a combination of 350+ independently owned dealerships and 17 direct branch offices with 40 offices throughout the U.S., Sharp can meet the technology requirements of our customers. Both our direct and indirect sales and servicing operations provide sales, delivery, installation, and service of products offered to our customers. Sharp's Direct Sales Operation, Sharp Business Systems (SBS) offer the strength of our corporate policies merged with the versatility of a local business, to understand the regional needs and dynamics for providing optimal service to our customers. Technicians and salespeople in these SBS branches are Sharp employees, under the direction of Sharp Electronics

		Corporation policies and management dedicated to support the SEC/account relationship. Sharp also provides customers support through hundreds of independent authorized dealers throughout the U.S. These dealers support Sharp Electronics through delivery, installation, service, and maintenance of Sharp products. Sharp Electronics Corporation has a long history of providing equipment and services to government agencies for over forty years. Sharp's contract team has a combined experience of more than 50 years working with and managing State contracts as well as national cooperatives. Sharp has participated in several contracts for more than 20 years. Our commitment to providing best-in-class equipment and services to government customers has been validated by our continued success in receipt of awards and product placements throughout the U.S. See Attachment 1 – SBS Branch Address See Attachment 2 - Sharp Sales Team See Attachment 2.1 – SBS and Dealer Location Map
	Outline any value-added capabilities not already addressed.	Sharp provides the following at no additional cost to Region 10 customers: **Sharp Remote Device Manager (SRDM)** Sharp Remote Device Management (SRDM) is a network tool designed to speed up the installation and configuration of all connected Sharp devices. Primarily for IT Managers, it allows customers to manage all Sharp and non-Sharp SNMP compliant printers over the network right from their desktop. IT Managers can customize machine information as well as view device status with optional pop-up alert messages.

		Detailed product information can be viewed as well, including total impressions and toner status, and of course, network settings can be viewed and edited as needed. In addition, SRDM can be easily customized. Network administrators can create lists of printers that share specific characteristics and display them by model name, IP address, status, location and more. By utilizing SRDM, network administrators can remotely manage all Sharp multifunction document systems from a single console. To expedite troubleshooting, flexible viewing allows administrators to focus on specific devices, either by state or by group and location thereby minimizing down time. More importantly, network administrators can quickly and seamlessly distribute printer drivers over the network, minimizing installation and support costs. SRDM Features: • Remote Front Panel access via VNC • View service logs and diagnostic data • Remote firmware upgrades from one machine to many • Clone device settings from one machine to many • Event driven, real-time service alerts • Historical reports • Device click counts and usage • Export click machine data • Machine click counts report • Device Status and Discovery • New look to include consumable and status SRDM Benefits: • All devices can be configured from a single console • Preventative maintenance warnings • Paper and toner status enable day-to-day planning for refilling supplies

		• Easy device maintenance and updates **Sharp Printer Status Monitor** The Sharp Printer Status Monitor is an easy-to-use utility that provides users with real-time information from each MFP directly on their desktop. Prior to sending a job, users can review the device's status, paper supply and toner levels. Information on the progress and completion of each user's print job, as well as preventive maintenance warnings also help to increase device uptime. **Remote Email Diagnostics** Putting timely and relevant information into the hands of key operators, IT managers and Sharp authorized service providers is a breeze with Sharp Remote Email Diagnostics. IT managers can easily configure event-driven or scheduled alerts such as low consumable levels, maintenance reminders or click counts and specify the list of recipients for each. This helps bring attention where it is needed, when it is needed, for increased device availability and reduced costs. **MICAS** Sharp's cloud-based Machine Intelligence Call Assistance Service (MICAS) is the service application and real-time monitoring agent used to collect and report information on device status, usage counts, supply levels, errors and alerts and provides a library of support resources to assist field service technicians. The MICAS Agent automatically collects real-time data using SNMP and transmits updates to the MICAS server using HTTP web services. The MICAS Agent also provides device information, troubleshooting and an end-user dashboard. MICAS utilizes request signing for web service calls. This technology is used to gather data for a current state assessment. With the current state data collected, we perform a walk-through of the existing environment to map out all of the print assets to help determine a future state design. Additionally, we look at document

		workflow during our walk-through to see if we can implement more productive digital document workflows in a future state design. MICAS is provided at no additional cost to a customer when ordering a Sharp MFP product. MICAS has benefits to both customers and service providers. • Benefits for customers o Automatic collection of meter data o Optimized device uptime for customer convenience o Real-time device status notifications to servicing provider • Benefits for service providers o Advanced supply monitors and forecasting tool o Device metrics including maintenance and status reports o Online resources to aid dispatchers and service technicians **Online Support and Training with My Sharp** My Sharp, available 24/7, is a dedicated customized website providing how-to videos and PDF documents that demonstrate features of the customer's specific MFP devices. With the intuitive web support, users can find the information they need for scan, copy, print, fax, administrative functionalities and supplies replacement, helping to reduce downtime and enhance productivity. **Sharp OSA Technology** Sharp OSA technology is a technology inherent in the proposed devices. This technology opens the door to transforming Sharp MFPs into a customized portal for document management that is conveniently located throughout a business. Combined with the

		virtually untapped potential of Sharp OSA applications, it helps enable users to extract and access key document information, manage usage costs and improve workflow within their enterprise. Sharp OSA technology helps provide extended access to mission critical business information while your IT network and security policies are maintained. Sharp pioneered the first web services-based MFP technology platform. Since the birth of Sharp OSA technology, Sharp has been playing an important role in creating the industry's ecosystem. Developing strong connections among independent software vendors, solution providers and IT customers, Sharp has been helping organizations become more competitive in the marketplace. Sharp OSA technology is cloud ready, enabling your IT department to make intelligent and informed decisions when it comes to solution deployment. With RESTful Web API, Sharp OSA technology supports Software as a Service (SaaS) or cloud-enabled environments by efficiently assisting communications involving intermediaries such as firewalls. Enabling secure and scalable communications, Sharp OSA cloud-ready technology further expands flexibility in how the document workflow and security solutions are implemented.
Solution customization and scalability	*Identify any customizable solutions for the multi-function devices and/or managed print services offered in this response.*	Our goal is to provide our customers a customizable solution with flexibility that tailors their printing, scanning, copying, and document management needs to their specific requirements. Managed print services can be offered through a number of 3rd party providers such as PaperCut, MyQ, PrinterLogic and ySoft. In order to best achieve the optimal solution, the following process is employed:

		Understand Vision and Goals: Collaborate to determine what the prospect wants to achieve from the assessment and discuss their top business initiatives so we can help them reach those goals. **Analyze and Assess**: Sharp collects device data, maps out print assets and interviews users. We reveal the prospect's current cost of printing, provide insight into company-wide printing activity, and determine which devices are costing the most. **Validate and Construct**: Together, Sharp and the customer, review the print environment analysis and decide on a plan of action to optimize the fleet and document workflow. **Customize and Propose:** Sharp proposes a customized MPS solution based on our assessment findings with the customer's vision and goals at the forefront. **Implement and Manage:** To ensure a smooth program roll out, Sharp communicates with internal key stakeholders and trains end users on any new equipment. Sharp proactively manages and monitors the fleet to provide first-rate service and supplies. **Evaluate and Adapt**:

		Benchmarks are established to regularly measure the success of the program and adapt to the printing/ document workflow needs. Quarterly reviews are held to ensure customer satisfaction and ongoing optimization Here's how these solutions can be customized: 1. Device Configuration and Setup Hardware Customization: Select the appropriate MFPs based on volume, speed, and specific functions (e.g., high-resolution printing, duplex scanning). Software Integration: Integrate MFPs with existing business software, such as document management systems, ERP, or CRM systems. User Access Controls: Set up personalized access controls, enabling different departments or individuals to have customized permissions based on their needs. 2. Print Policy and Workflow Automation Print Policies: Develop and implement print policies that limit color printing, enforce double-sided printing, or require user authentication for high-volume jobs. Workflow Automation: Automate document workflows, such as routing scanned documents to specific folders, email addresses, or cloud storage systems. 3. Managed Print Services (MPS) Customization

		Fleet Management: Customize the management of MFDs and printers across multiple locations, including centralized monitoring and maintenance scheduling. Cost Allocation and Reporting: Implement detailed tracking of print usage across departments or projects, with customized reports for budgeting and cost management. Sustainability Initiatives: Customize solutions to align with sustainability goals, such as reducing paper waste or energy consumption.
	Outline the scalability of the solutions offered for varying organizational sizes and growth trajectories.	The solutions offered by Sharp can be tailored to meet the specific requirements as outlined by the organization. The information collected during the assessment is used to create a baseline for measuring cost savings during the life of the solution. It is also used to shape the future print policy, designed to enable quality output and staff productivity. It also contributes towards planning the hardware rollout and ensuring that this can be completed in a seamless manner, and with minimal disruption for the users. We use a systematic approach to assess the print and document workflow environment and adjust accordingly. Please see examples of solutions which Sharp offered for varying organizational sizes and growth trajectories. Sharp Case Studies – Pepperdine University and Community Health Network
Customer implementation and support plan	*Describe your company's implementation and training plan for new customers, including a general timeline for implementation services.*	Initial training will be conducted at the time of equipment installation and will be followed by a formal training plan. The purpose of the initial training is to ensure that the offices where the installation occurs can have full usage of the new equipment immediately upon delivery to not interrupt the office's mission.

		Sharp recommends that each area or division designate an individual as the Key Operator because a Key Operator is provided more in depth trained on the inner workings of the device. The Key Operator is trained to load toner, clear misfeeds, and add paper. They also will be trained on how to request emergency service. The Key Operator will ensure the smooth operation of the contract **Special Training Requests**: Sharp understands that training is ongoing in that employees are promoted or leave creating the need for continued training. Sharp will provide the training of new employees, special requests, and follow-up training on an as needed basis as long as the device is installed. Sharp will take the necessary time to educate the new employees or provide refresh training or current employees throughout the life of the contract. This training may incur an additional cost. **Installation completion**: Sharp's Technical Staff, Government Account Manager, and/or the installing Sharp reseller representative will complete a final walk through of the installation to ensure that all equipment is installed and fully operational. They will be available to answer any additional questions regarding the equipment or if there is a need for additional training. In addition, Sharp will provide Technical support to your Systems Administrator to ensure a smooth and seamless installation to your network. **Web Based Training Site**: A "My Sharp" website will be developed and available under this contract. This is a personal online companion for product support. My Sharp features helpful demonstrations on how to use the scan, copy, print and fax capabilities of your Sharp office products. The site is

		provided at no charge and is available to every user 24 hours a day to assist in the operation of the installed devices. My Sharp demonstrations cover a broad range of product features, from basic fundamentals such as “Changing Paper” to more advanced features such as “Email Destination Management”. Tailored to the skill level of an individual or a group of users, custom sites can be built to include several or all demonstrations within a category. If all demonstrations are included in your site, you automatically receive demonstration updates as they are released. Demonstrations are immediately available for viewing as a flash file, with or without audio. Users can also view, print, or email a PDF version of the demonstration directly from the site. Small file sizes provide quick and easy access for viewing and downloading Total Office Control: With a level of support which supplements help desk professionals or advanced key operators, ‘My Sharp’ will help you maximize the return on your office investment.
	Outline what ongoing training and consulting support is available to customers.	Initial installation of equipment includes one hour of customer training. Additional training can be provided by the installing Sharp authorized dealer or SBS location. This service may incur an additional cost. We actively encourage our customers to use our 24/7 online training website – MySharp (see below).
Technical support and maintenance services	*Outline what levels of technical support are available to customers, including standard response and resolution timelines.*	Sharp’s technical support has multiple levels. We encourage our customers to use our MySharp Customized Website. However, there are instances when a customer may need live support. In those instances, customers should contact the servicing authorized dealer or SBS location. Standard response time for customer call back is within one hour of initial call. A complete escalation timeline is provided in Attachment 3. Attachment 3: Service Response and Escalation Process

	Outline any maintenance solutions for devices and/or software such as preventative maintenance, service level agreements, and remote diagnostics.	All service contracts include preventative maintenance. Sharp's Preventive Maintenance (PM) program is based on the specific need of the individual machines installed as determined by Sharp. The local Branch or servicing dealer will schedule regular preventive maintenance service calls in advance. The PM calls shall include, but are not limited to, routine cleaning, lubrication, necessary adjustments, and replacement of unserviceable parts. Preventive/Scheduled maintenance shall be performed in accordance with Sharp's recommendation. In addition to Sharp's preventive maintenance policy, every emergency call includes a preventive maintenance check as follows: • Complete Operations Check of the copier and its accessories • Inspect the copier system to ensure all retrofits are installed • Repair or replace any part that might be worn • Review any questions with the key operator and train, if necessary • Check all connected units to ensure all operating systems are functioning As stated, Sharp will schedule preventive maintenance with the Key Operator at a time convenient with the location to not disrupt any operation at peak hours. Preventive Maintenance is truly that (preventative) to Sharp - and its servicing dealers take pride in assuming a proactive position as it relates to service. Our approach of a total machine examination, repairing suspect areas, in addition to normal PM functions, keeps Sharp copiers the highly reliable products they have become within the office products industry. Sharp's Service Level Agreement (SLA) outlines all aspects of our service approach, including, but not limited to response time, loaner equipment and more.

		See Attachment 4 - Service Level Agreement Sharp provides Sharp Remote Device Manager (SRDM) at no additional cost to Region 10 customers. Sharp Remote Device Management (SRDM) is a network tool designed to speed up the installation and configuration of all connected Sharp devices. Primarily for IT Managers, it allows customers to manage all Sharp and non-Sharp SNMP compliant printers over the network right from their desktop. IT Managers can customize machine information as well as view device status with optional pop-up alert messages. Detailed product information can be viewed as well, including total impressions and toner status, and of course, network settings can be viewed and edited as needed. In addition, SRDM can be easily customized. Network administrators can create lists of printers that share specific characteristics and display them by model name, IP address, status, location and more. By utilizing SRDM, network administrators can remotely manage all Sharp multifunction document systems from a single console. To expedite troubleshooting, flexible viewing allows administrators to focus on specific devices, either by state or by group and location thereby minimizing down time. More importantly, network administrators can quickly and seamlessly distribute printer drivers over the network, minimizing installation and support costs. SRDM Features: • Remote Front Panel access via VNC • View service logs and diagnostic data • Remote firmware upgrades from one machine to many • Clone device settings from one machine to many • Event driven, real-time service alerts • Historical reports

		• Device click counts and usage • Export click machine data • Machine click counts report • Device Status and Discovery • New look to include consumable and status SRDM Benefits: • All devices can be configured from a single console • Preventative maintenance warnings • Paper and toner status enable day-to-day planning for refilling supplies • Easy device maintenance and updates

Integration with other platforms	*Describe integration capabilities your software solutions can provide with existing IT infrastructure or other platforms/systems.*	Sharp provides solutions for enterprises employing Citrix's® virtual desktop and application server technologies. Use of Citrix Presentation Server™ and Citrix XenApp® allow companies to better manage application costs and improve and centralize network management tasks. As a leading provider of multifunction devices compatible with these platforms, Sharp is well-positioned to be your customer's MFP of choice.
		
		Rigorous testing performed at Sharp's labs, based on actual test environments used at Citrix Systems, Inc.'s® Citrix Ready® test lab, has successfully qualified Sharp's PCL 6 driver in Citrix Presentation Server and Citrix XenApp environments on 32- or 64-bit Microsoft® Windows® server platforms. Client operating systems tested include 32- and 64-bit versions of Windows OS.
		
		• Certification covers the following Oracle Cerner products and environments:
		• Cerner Millennium / AIX Environment
		  • IBM AIX® version 5.3 – ML 3 or greater
		  • Cerner Millennium 2005.02.06 or greater

		• Cerner Millennium / HP-UX Environment
		  • HP HP-UX® version 11.23 or greater
		  • Cerner Millennium 2005.02.06 or greater
		• Cerner Millennium / Linux Environment
		  • RedHat® version 5.3 Enterprise or greater
		  • CUPS version 1.3.7 or greater
		  • Cerner Millennium 2005.02.06 or greater
		
		Sharp is a gold-level member of the SAP Printer Vendor program. Sharp's device types are available to SAP system owners and administrators by logging into the SAP Service Marketplace at http://service.sap.com/support.

Security protocols and privacy protection	*Please describe protocols taken to ensure the protection of privacy and data, particularly personal identifiable information of both internal and external stakeholders.*	Sharp's ISO/IEC 27001:2013 certification specifies the requirements for establishing, implementing, maintaining and continually improving an information security management system within the context of the organization. As part of this certification Sharp adheres to the NIST SP 800-53, Revision 4 standards. As of today, Sharp has no products listed in the NIST National Vulnerability Database. Sharp's Data Breach plan includes the following provisions regarding breach detection, notification, and response time. **Detection:** In the event of a potential breach, the Sharp Breach Notification Team will investigate the incident. In determining whether notification is required, the Breach Notification Team will consult with other members of the organization, including contractors and consultants to determine whether Sharp has a duty to notify individuals about the breach. Sharp will document its analysis leading to its conclusion. **Notification**:

		If the Breach Notification Team determines that Sharp must provide notification of the incident, the Team will prepare an appropriate notification plan. Response Time: Sharp must provide affected individual without reasonable delay but no later than 60 days after the date Sharp discovers the breach or should have discovered the breach if it had exercised appropriate diligence **Sharp's Data Breach Plan is included as Attachment 5**.
	Outline how your software and security solutions meet necessary compliance and regulatory requirements.	Sharp MFPs are Common Criteria certified based on the Hardcopy Device Protection Profile (HCD-PP) v1.0 security target Up to 10 times programmable overwrite is used to maximize the data erase efficiency. The data is overwritten by random numbers. In addition, the data overwrite method can be customized to meet each organization's security requirements or it can be set as it is specified in DoD 5220.22-M. Sharp MFPs include standard network security features such as: • Network communication protection via TLS • SHA-2 certificate • Wireless LAN communication protection • Secure protocols such as Kerberos, IPv6, and SMBv3 • IP address and MAC address filtering • Port management • Disable/enable features and functions • SNMPv3 communication • Device certificates • CA Certificates • IEEE802.1X™ authentication

		• Event Log (Supports RFC 5424/3164 Standard Syslog Protocol) **End of Lease Hard Drive Erase** When the device is retired, it is important that the data retained within the device be removed or rendered in an unreadable format. Select Sharp document systems offer standard End-of-Lease features to ensure that all confidential data is overwritten before the device leaves the facility. While data is being erased, the data deletion progress will be displayed. After erasing is completed, the MFP will be rebooted automatically. The data erase completion report will then be printed out. **Optional Bitdefender Antivirus 24/7 event monitoring** The Bitdefender anti-malware engine helps protect against the full range of cyber threats. It implements multiple technologies and detection methods to ensure optimum detection accuracy. Bitdefender protects against known and unknown malware threats including: viruses, trojans, worms, ransomware, persistent threats and Spyware.
Customer service/problem resolution	*Describe your company's Customer Service Department (hours of operation, how you resolve issues, number of service centers, etc.).*	Customer service is managed locally by the Sharp Authorized Dealer or SBS location responsible for the Purchasing Entity. Hours of operation may vary depending upon location, but are generally Monday through Friday, 8:00 AM to 6:00 PM . Internally, the Sharp Government & Major Account Manager assigned to this contract (Jack Coons) will work closely with our Administration Team, SBS Branch locations, and Dealers to ensure that all customer service needs are met. Jack is ultimately responsible for any problem escalation necessitated on a corporate level.
Financial condition of vendor	*Demonstrate your financial strength and stability with meaningful data. This could include, but is not limited to, such items as financial statements, SEC filings, credit & bond ratings, letters of credit, and detailed refence letters*	See Attachment 6 Sharp Annual Report - 2023

	What was your annual sales volume over last three (3) years?	Sharp Corporation Global Revenue FY 2021 (Apr 21 – Mar 22) - $16.5B FY 2022 (Apr 22-Mar 23) - $17.0B FY 2023 (Apr 23- Mar 24) - $17.3B
History of meeting products and services deadlines	*Outline the process timeline for product pickup, delivery and any other applicable capabilities not already addressed.*	As previously indicated, Sharp will support an awarded contract through our direct Sharp Business Systems (SBS) locations and through our network of authorized Sharp Dealers. For those orders placed with a SBS location, all invoices will include the Sharp Representative's name, phone number and email address. If an issue arises with an invoice, the Purchasing Entity can reach out to their representative, and the representative will be able to resolve the issue. If the Purchasing Entity would like to escalate the issue, their representative can advise them accordingly. For those orders placed with a Sharp authorized dealer, the Participating Entity can work directly with the Dealer to resolve invoice disputes. If a situation requires escalation the territory Government Account Manager, will get involved to bring about a proper resolution. When an invoicing error is identified or an overpayment is received, a credit is issued and posted to the customer account. So long as there is no outstanding AR on their account, a refund is issued. In the event of a return, once the equipment is received back into our warehouse, a credit is issued to the customer account. Sharp plans for 60 days on hand of inventory across all models, with an additional 30 days enroute from overseas factories. Sharp has redundant manufacturing for key hardware to reduce the reliance on a single source location. Sharp has an extensive list of ocean carriers to ensure a continuous flow of inventory even during capacity constraints at origin ports. Domestically Sharp has an efficient supply

		chain process to ensure product moves from port to customer expeditiously.
Other factors relevant to this section as submitted by the Respondent	*Describe the capacity of your company to provide management reports, i.e. consolidated billing by location, time and attendance reports, etc. for each eligible agency*	Sharp reports on total devices by model and manufacturer, age of fleet, monthly volume by device (color & b/w), printed document costs, over/under utilization of devices and uses BLI and Gartner for best practices of measurement. The following are some examples of Sharp's reports: • Management Reporting- Accurate up-to-date information detailing equipment location, usage, performance and overall costs. • Purchase History Reports- details information on Sharp equipment acquired by each customer location for a specific purchase order. Includes machine model and servicing dealer. • Copier Usage Reports- Analyzes copier usage within a given timeframe for both current and previous billing periods as recorded by Sharp. Includes model number, serial number, and servicing dealer. • Service History Reports- provides data for the incidence of service calls including date and time of call, problem descriptions and technician resolution. • Equipment Service Timing Reports- reports the details of all service calls as provided by the local servicing dealer. Includes dealer response to a service call with up time and downtime over a given time period. • Inventory Reports- provides history of equipment ordered for a specific client. The report includes site location, model number, serial number and installation date.
	Provide your safety record, safety rating, EMR and worker's compensation rate where available.	See Attachment 7 - Sharp Experience Modification Rating
Qualification and Experience (25 Points)		
Respondent reputation in the marketplace	*Provide a link to your company's website*	https://business.sharpusa.com/

	Please provide a brief history of your company, including the year it was established.	Since its founding in 1912, Sharp Corporation has endeavored to pioneer new fields and develop original products. Our founder coined the phrase “Make products that others want to imitate" to embody the management concept. In 1912, he invented the Snap belt buckle and three years later brought the mechanical pencil to the market. Since then, Sharp has been on the cutting edge of technology, consistently innovating new appliances, industrial equipment and office solutions, and changing the lives of people around the world. Beginning with the invention of the Mechanical Pencil, from which the company name is derived, Sharp has introduced a succession of innovative world firsts including the all-transistor desktop calculator, the long-life laser diode, the 14” color TFT LCD unit and the LCD View cam. In addition, Sharp developed and manufactured Japan’s first radio, television, and microwave oven, electronic calculator with LCD display, solar cell, and electronic organizer and LCD video projector. Sharp’s commitment to the United States marketplace began in 1962. We provide one of the broadest and innovative lines of business products, electronic components, consumer electronics and services world-wide. In 1972, Sharp entered what was then called the photocopier business. This has grown to include multifunction print devices, related imaging equipment, solutions, accessories, supplies and services. Sharp continues to redefine document technology by offering products that are easy to use, customizable and secure. Sharp aims to always realize its business philosophy. Possessing a "gene of creativity" since its foundation, Sharp will continue to offer one-of-a-kind products as a corporation trusted around the world.
Past relationship with Region 10 ESC and/or Region 10 ESC members	*Have you worked with Region 10 in the past? If so, provide the timeframe and main contact for that work?*	Sharp is a current Region 10 partner. Sharp currently has (2) awarded contracts.

		The primary sales contact for the Equalis contract is Jack Coons. Contract EQ-013120-02A 5/1/20 – 4/30/25 Print, Scan, Copy Equipment, Managed Print Solutions and Related Products and Services Contract EQ-013120-01D 5/1/20 – 4/30/25 Technology Software, Equipment, Services and Related Solutions.
Experience and qualification of key employees	*Please provide contact information and resumes for the person(s) who will be responsible for the following areas. Region 10 requests contacts to cover the following:* ** Executive Support* ** Account Manager* ** Contract Manager* ** Marketing* ** Billing, reporting & Accounts Payable*	**Executive Contact** Contact Person: Jeff Ashida Title: President and CEO, SEC Company: Sharp Electronics Corporation Address: 100 Paragon Drive City: Montvale State: NJ Zip: 07645 Phone: 201-529-8200 Fax: Email: ashidaJ@sharpec.com **Executive Contact** Contact Person: Mike Marusic Title: President and CEO, SIICA Company: Sharp Electronics Corporation Address: 100 Paragon Drive City: Montvale State: NJ Zip: 07645 Phone: 201-529-8200 Fax: Email: marusicm@sharpec.com **Account Manager / Sales Lead** Contact Person: Jack Coons Title: Government & Major Account Manager Company: Sharp Electronics Corporation Address: 100 Paragon Drive

		City: Montvale State: NJ Zip: 07645 Phone: 817-909-0152 Fax: Email: Coonsj@sharpsec.com **Contract Management** (if different than the Sales Lead) Contact Person: Maureen Tighe Title: Senior Marketing Manager Company: Sharp Electronics Corporation Address: 100 Paragon Drive City: Montvale State: NJ Zip: 07645 Phone: 201-529-0325 Fax: Email: Tighem@sharpsec.com **Billing & Reporting/Accounts Payable** Contact Person: Jessica Gerhold Title: Manager Business Operations Company: Sharp Electronics Corporation Address: 100 Paragon Drive City: Montvale State: NJ Zip: 07645 Phone: 201-529-9557 Fax: Email: gerholdj@sharpsec.com **Marketing** Contact Person: Maureen Tighe Title: Marketing Manager Company: Sharp Electronics Corporation Address: 100 Paragon Drive City: Montvale State: NJ Zip: 07645 Phone: 201-529-0325 Fax: Email: Tighem@sharpsec.com
Past experience working with the public sector	*What are your overall public sector sales, excluding Federal Government, for last three (3) years?*	The following represents public sector sales via Sharp held cooperative and statewide contracts:

		FY 2021 - $44,098,207 FY 2022 - $66,500,631 FY 2023 - $63,622,816
	What is your strategy to increase market share in the public sector?	Sharp's strategy to improve market share in the public sector will be through the development of marketing campaigns specific to education and the public sector. In addition, Sharp works closely with our dealer network and SBS locations to help identify opportunities. Through the enhancement of training materials and providing sales with contract specific marketing tools, Sharp is confident that the end result will be increased market share in the public sector.
Past litigation, bankruptcy, reorganization, state investigations of entity or current officers and directors	*Provide information regarding whether your firm, either presently or in the past, has been involved in any litigation, bankruptcy, or reorganization.*	Sharp Electronics Corporation has not filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors, in the last 10+ years.
Minimum of 5 public sector customer references relating to the products and services within this RFP	*Provide a minimum of five (5) customer references for product and/or services of similar scope dating within the past 3 years. Please try to provide references for K12, Higher Education, City/County and State entities. Provide the entity; contact name & title; city & state; phone number; years serviced; description of services; and annual volume*	**Reference 1** Entity Name: North East ISD Contact Name and Title: Phil San Miguel, RTBSA, Director City and State: San Antonio TX Phone Number: 210-356-8848 Years Serviced: 8 years Description of Services: print fleet hardware and supplies Annual Volume: 120,000,000 impressions **Reference 2** Entity Name: Round Rock ISD Contact Name and Title: Danny Poolman, Purchasing Manager City and State: Round Rock, TX Phone Number: 512-464-6953 Years Serviced: 9 years Description of Services: print fleet hardware, supplies and services Annual Volume: 42,000,000 impressions

		Reference 3 Entity Name: Williamson County Contact Name and Title: Joy Simonton, Purchasing Agent City and State: Georgetown, TX Phone Number: 512-943-1555 Years Serviced: 2+ Years Description of Services: Copiers, Printers and MFDs Annual Volume: Unlimited Copies Included **Reference** 4 Entity Name: Dripping Springs ISD Contact Name and Title: Valerie Littrell, Purchasing Coordinator City and State: Dripping Springs, TX Phone Number: 512-858-3039 Years Serviced:5 months Description of Services: Copiers, MFDs and Papercut Management Software Annual Volume: 640,000 impressions **Reference 5** Entity Name: Hays CISD Contact Name and Title: Anston Shockley, Purchasing Agent City and State: Kyle, TX Phone Number: 512-268-2141 Years Serviced: 4 Years Description of Services: Copiers, MFDs and Papercut Management Software Annual Volume: 40,800,000 impressions
Company profile and capabilities	*Do you plan to sell to customers directly, use resellers or subcontractors, or a combination of both? If you intend to use resellers and/or subcontractors, describe your process for ensuring that resellers and*	Sharp will use a combination of direct (Sharp Business Systems) and Authorized Dealers to support and service Region10. Sharp's Authorized Dealers are contractually bound by the Sharp

	subcontractors comply with the pricing and terms of the contract.	National Account Program (SNAP) Representative Agreement under which they act on behalf of Sharp following Sharp's guidelines for providing products and services as required and defined in an awarded contract. Requirements of the SNAP Representative Agreement include the following: • Be fully trained and certified on all products they are servicing • Carry adequate parts and supplies in order to support accounts • Provide Sharp provision of warranty and service • Meet Sharp's stringent service response times • Provide loaners for emergency situations (if required in awarded contract) • Provide trial equipment on a timely basis upon request (if required in awarded contract) • Pull equipment from Dealer inventory when needed Eligibility to participate in the contract can be revoked if a Dealer fails to comply with the terms and conditions of the award or for non-compliance with the SNAP Representative Agreement Our extensive history with cooperative contracts has resulted in Sharp developing a multi-level approach to educating our internal salesforce, 350+ authorized Dealers, as well as our direct sales operation, Sharp Business Systems (SBS). Upon award, the Sharp Government Marketing Team provides focused training for the Sharp Government & Major Account Manager (GMAMs) who are responsible for their designated territories. All Sharp GMAMs are required to meet with the Dealer

		and Bran0ch locations in their assigned territories to review the contract, terms, pricing and benefits and opportunities it represents. Dealer Sales Personnel are directed to become familiar with Sharp's contract website which provides the most current pricing, contract terms and conditions, as well as links to the Master Agreement. Finally, Sharp's Government Marketing Team works closely with the GMAMs to ensure that Sharp's Dealer sales force, as well as Sharp Branch locations, maintain an understanding of Sharp's contracts. All contract pricing updates are distributed immediately and posted to both our customized site as well as our online Dealer training site (Sharp Success Center) which is designed to provide continued 24/7 access to resources, innovative tools, ongoing training and technical support needed to exceed Sharp's customer service reputation.
Exhibited understanding of cooperative purchasing	No answer is required. Region 10 will utilize your overall response to this questionnaire to make this determination. Previous experience with cooperatives is not necessary to score well for this criterion.	
Other factors relevant to this section as submitted by the Respondent	*If your company is a privately held organization, please indicate if the company is owned or operated by anyone who has been convicted of a felony. If yes, a detailed explanation of the names and conviction is required.*	Sharp Electronics Corporation has not been convicted of, pled guilty to, or pled nolo contendere to any felony. To our knowledge none of any of its employees, agents, independent contractors, or subcontractors, involved in the delivery of goods or performance of services on a contract pursuant to this RFP, have been convicted of, pled guilty to, or pled nolo contendere to any felony.
	Provide a copy of all current licenses, registrations and certifications issued by federal, state and local agencies, and any other licenses, registrations or certifications from any other governmental entity with jurisdiction, allowing Respondent to perform the covered services. These will be provided in the space provided in Form 3. No answer is required here.	
MWBE Status and/or Program Capabilities (10 Points)		
MWBE status, subcontractor plan, and/or joint venture program	*Please indicate whether you hold any diversity certifications, including, but not limited to MWBE, SBE, DBE, DVBE, HUB, or HUBZone*	Although Sharp Electronics Corporation does not hold any diversity certifications, Sharp is an equal opportunity employer with a commitment to affirmative action and welcomes applications from all qualified candidates. We make special efforts to recruit females, minority groups, and persons with disabilities, disabled veterans and veterans of the Vietnam Era for managerial, professional, technical,

		administrative, and sales positions. It is the intention of Sharp Electronics Corporation to grow hand-in-hand with our employees, encouraging and assisting them to reach their full potential. Sharp Electronics is not a minority owned business but sends out "self-certification" forms to all potential suppliers/subcontractors. The supplier/subcontractor fills out the form according to what type of supplier/subcontractor they are: 1) Large or Small Business 2) Disabled Veteran Business 3) Minority Owned Business 4) Woman Owned Business 24% of Sharp's MFP Dealer Network are represented in these Classifications.
	Do you currently have a diversity program in place, such as a Mentor Protégé Program or subcontractor program? If you have a diversity program, please describe it and indicate whether you plan to offer your program or partnership through Equalis Group?	Our supplier diversity commitment is rooted in the following principles: 1. Inclusivity: We actively seek suppliers from diverse backgrounds, including minority-owned, women-owned, veteran-owned, LGBTQ+-owned, and other underrepresented groups. We embrace diversity in all its forms and strive to provide equal opportunities for businesses to participate in our procurement processes. 2. Economic Empowerment: We recognize that diverse suppliers play a vital role in driving local economies and job creation. By partnering with diverse businesses, we contribute to the growth and prosperity of communities and promote economic empowerment for historically marginalized groups. 3. Collaboration and Mentorship: We are dedicated to supporting diverse suppliers by providing resources, mentoring, and development opportunities to help them enhance their capabilities and competitiveness. We actively engage in mentorship programs and foster collaborative relationships to promote the long-term success of diverse suppliers.

		4. Measurement and Accountability: We set measurable goals and track our progress to ensure continuous improvement in supplier diversity. By monitoring our performance, we hold ourselves accountable for achieving meaningful results and making a positive impact on supplier diversity efforts. 5. Advocacy and Partnerships: We actively collaborate with organizations and advocacy groups that promote supplier diversity to share best practices, exchange ideas, and drive collective action. By leveraging these partnerships, we amplify our impact and contribute to industry-wide efforts in advancing supplier diversity. We understand that supplier diversity is not just a checkbox, but a strategic imperative that drives innovation, fosters creativity, and improves customer satisfaction. By embracing supplier diversity, we create an environment that celebrates diversity, respects unique perspectives, and unlocks new opportunities for growth. Through our commitment to supplier diversity, we aim to create a more inclusive economy, empower underrepresented businesses, and make a lasting positive impact on the communities we serve.
	Please attach any certifications you have as part of your response to Form 3.	
Good faith efforts to involve MWBE subcontractors in response	*Did your company contact MWBEs or minority chambers of commerce by telephone, written correspondence, or trade associations at least one week before the due date of this RFP to provide information relevant to this opportunity and to determine whether any MWBEs were interested in subcontracting and/or joint ventures?*	Several of Sharp's Dealer partners who would support this contract are Texas HUB certified, These partners include Platinum Copier Solutions LLC, Southwest Office Systems Inc., Spectrum Imaging Technologies dba Spectrum Technologies and Complete Office Technologies. As noted above Sharp proactively seeks partners with MWBE certifications. Sharp currently has 15 Dealer partners in Texas that are MWBE certified and a total of 77 Dealer partners across the country. A list of these dealers is attached.

		See Attachment 8 – MWBE Texas Dealers **See Attachment 9 – MWBE All Dealers (National)**
Demonstrated ongoing MWBE program	*Outline your subcontractor strategy and efforts your organization takes to include MWBE subcontractors in future work, including but not limited to efforts to reach out to individual MWBE businesses, minority chambers of commerce, and other minority business and trade associations.*	Although Sharp Electronics Corporation does not hold any diversity certifications, Sharp is an equal opportunity employer with a commitment to affirmative action and welcomes applications from all qualified candidates. We make special efforts to recruit females, minority groups, and persons with disabilities, disabled veterans and veterans of the Vietnam Era for managerial, professional, technical, administrative, and sales positions. It is the intention of Sharp Electronics Corporation to grow hand-in-hand with our employees, encouraging and assisting them to reach their full potential. Sharp Electronics is not a minority owned business but sends out "self-certification" forms to all potential suppliers/subcontractors. The supplier/subcontractor fills out the form according to what type of supplier/subcontractor they are: 1) Large or Small Business 2) Disabled Veteran Business 3) Minority Owned Business 4) Woman Owned Business 24% of Sharp's MFP Dealer Network are represented in these Classifications.
Commitment to Service Equalis Group Members (10 Points)		
Marketing plan, capability, and commitment	*Detail how your organization plans to market and promote this contract upon award, including how this contract will fit into your organization's current go-to-market strategy in the public sector.*	Sharp will actively promote the Contract to our national dealer network, as well our SBS Branch locations. Upon contract award, Sharp will issue a co-branded press release. Sharp's marketing strategy includes educating our dealer network and customers on the benefits of the contract. This effort is multi-tiered and includes a customized web link accessible via Sharp's intranet, customized brochures and flyers, dealer training materials and by the participation in recommended national and regional trade shows.

		Sharp will design and create co-branded banners for dealers to display at trade shows and meetings. Sharp will participate in cooperation with Region 10 in national and regional trade shows to promote this contract. On a regional basis, Sharp will encourage our Dealers and Branches to participate in state and/or regional government and education tradeshows to represent Sharp and promote our relationship with Region 10. Sharp Marketing will work closely with Sharp Sales to identify key geographic locations and/or Sharp Dealers and hold in depth training sessions on the value of selling an awarded Equalis contract. This approach has proven to be highly effective at increasing awareness, adoption and resulting sales success. Sharp will provide incentives for using the contract to dealer sales people through our Ultimate Rewards program. This program is a versatile, online sales and merchandise program designed to reward Sharp dealer and SBS sales reps for selling Sharp products through the contract. All Sharp dealer sales reps and sales managers are encouraged to improve their level of sales and technical competency by completing the Sharp Academy online training program - the best in-depth and up-to-date education on Sharp products, software and solutions. The Ultimate Rewards point values earned are directly related to the Sharp Academy level of training completed. This business model encourages our dealer sales reps to continuously train and maintain a high level of industry and product knowledge.
	Detail how your organization will train your sales force and customer service representatives on this contract to ensure that they can competently and consistently present the contract to public agency customers and answer any questions they might have concerning it.	**Salesforce Training** We are committed to supporting contract compliance and ensuring that our sales team has access to the latest resources, training and tools they will need to successfully support an awarded contract. Our sales intranet - the Sharp Success Center – is an online training site that includes a contract specific landing page with a Contract

		Overview, Customer Benefits flyer, Dealer Benefits flyer and a link to a customized customer website. The Success Center not only includes information specific to an awarded Equalis contract, but also information on Sharp's full line of equipment, a configurator, sales success stories, and more. **Customer Service Training** Upon award of a contract, our Marketing Team develops a Contract Award Document which outlines the contract requirements, terms, etc. The Marketing Team then meets with the Customer Service Team to review the contract and all customer service and reporting requirements associated with the award. This document is also posted on a shared Teams folder for future reference.
	Acknowledge that your organization agrees to provide its company logo(s) to Region 10 ESC and Equalis Group and agrees to provide permission for reproduction of such logo in marketing communications and promotions	Agreed
Ability to manage a cooperative contract	*Describe the capacity of your company to report monthly sales through this agreement to Equalis Group.*	Sharp respectfully requests that the reporting requirement be modified to a Quarterly Report. We have a dedicated resource for all contract reporting and can provide data for the fields indicated on a quarterly basis to Equalis Group.
	Identify any contracts with other cooperative or government group purchasing organizations of which your company is currently a part of:	Sharp currently holds several National and Regional contracts. Our proven track record with cooperative contracts has been confirmed by large accounts who have chosen to remain with Sharp over the years. Sharp's long, multi-year, history with many of these contracts affirms our commitment and dedication to the cooperative contract market and its customers. Sharp current contracts include: NASPO Sourcewell Texas BuyBoard

		Texas DIR PEPPM
Commitment to supporting agencies to utilize the contract	*If awarded a contract, how would you approach agencies in regards to this contract? Please indicate how this would work for both new customers to your organization, as well as existing.*	Account interaction is managed by our authorized Dealer Network and SBS salespeople. Sharp is committed to providing information and training on our products and processes as they relate to an awarded contract. In addition, we continually update our sales training via the Sharp Success Center. Sharp is in a unique position because we currently hold (2) Equalis contracts. This enables us to have a greater reach with both our current and potential customers. We can target current MFP customers and discuss the merits of the additional technology offering Sharp can provide and vice versa.
Other factors relevant to this section as submitted by the Respondent	*Provide the number of sales representatives which will work on this contract and where the sales representatives are located.*	Sharp has a dedicated Government Account team that works closely with our Sharp authorized dealers and SBS locations. The team is comprised of (2) Sales Directors, (9) Government and Major Account Managers and (1) Inside Sales person. This team is wholly responsible for supporting an awarded contract. The GMAMs work closely with our Territory Business Managers who are responsible for supporting our Dealer Network, as well as dedicated government salespeople within our SBS organization. The GMAMs work closely with corporate marketing to ensure that all individuals are trained and fully versed in the value of an Equalis contract award. See Attachment 2.2 – GMAM Territory Map

Attachment 1
Sharp Business Systems
Branch Locations

8/14/2024

SBS Branch Phone Directory

Name	Main Office		
ARIZONA	**Main Office** **Sharp Business Systems** 610 West Alameda Tempe, Arizona 85282 Main Phone: (480) 303-9700 Main Fax: (480) 303-2565	**Tucson Sales Office** 1131 East Palmdale Tucson, Arizona 85714 Ph. (520) 770-9700 Fax (520) 573-9701	**Albuquerque Sales Office** 3901 Singer Blvd, N.E., Ste C Albuquerque, NM 87109 Ph. (505) 924-9700 Fax (505) 271-9206
SAN FRANCISCO	**Main Office and Warehouse** **Sharp Business Systems** 5700 Stoneridge Drive, Suite 300 Pleasanton, CA 94588 Main Phone: (925) 417-8400 Main Fax: (925) 417-8404	**San Jose Sales Office** 224 Airport Parkway, Suite 525 San Jose, CA 95110 Main Phone: (925) 417-8400 Main Fax: (925) 417-8404	
MIAMI	**Main Office** **Sharp Business Systems** 14651 Oak Lane **Miami Lakes**, Fl 33016 Main Phone: (305) 558-2721	**Tampa Sales Office** Tripointe Plaza 4488 Boy Scout Blvd, Suite 300 **Tampa**, Florida 33607-5731 Ph. (813) 384-3881 Fax (813) 384-3882	**Delray Beach Office** 1395 NW 17 Avenue, Suite 115 **Delray Beach**, FL 33445 Ph. (305) 779-6361
INDIANAPOLIS	**Main Office** **Sharp Business Systems** 7330 E 86th Street, Suite 900 **Indianapolis**, IN 46256-1251 Main Phone: (317) 844-0033	**Cincinnati Sales Office** 9031 Meridian Way **West Chester**, OH 45069 Ph. (513) 645-0111	
SAN DIEGO	**Main Office** **Sharp Business Systems** 8670 Argent Street Santee, CA 92071 Main Phone: (619) 258-1400. **888-258-2802** Service: (619) 258-6800 Main Fax: (619) 258-1402	**Orange County Sales Office** 5241 California Ave #100 Irvine, CA 92617 Ph. (888) 258-2802	**Santa Fe Springs Sales Office** 12985 Los Nietos Rd. Santa Fe Springs, CA 90670 Ph. 888-258-2802
CHARLOTTE	**Main Office** **Sharp Business Systems** 4725 Entrance Drive, Suite J Charlotte, NC 28273 Main Phone: (704) 523-3333 Main Fax: (704) 525-1506	**High Point Sales Office** 4050 Piedmont Parkway, Ste 100 High Point, NC 27265 Ph. (336) 275-1011	**Hickory Sales Office** 1359 N. Center St. Hickory, NC 28601 Phone: 828-466-1322 Fax: 828-466-1312
	Winston Salem Sales Office 102 West 3rd Street Suite 190 Winston Salem, NC 27101 Ph. (336) 759-0212 Fax (336) 759-2669	**Morrisville Sales Office** 5001 Hospitality Court, Suite 150 Morrisville, NC 27560 Ph. (919) 465-3123 Fax (919) 465-3320	**Lumberton Office** 325 North Elm Street Lumberton, NC 28358 Phone: (704) 523-3333
	Lynchburg Office 2246 LAKESIDE DRIVE LYNCHBURG, VA 24501	**Asheville Sales Office** 51 Thompson Rd Ste A Asheville, NC 28303 (828) 650-9755	
WASHINGTON	**Main Office** **Sharp Business Systems** 3110 Fairview Park Drive, Suite 1170 **Falls Church, VA 22042** Main Phone: (703) 313-9400 Main Fax: (703) 245-3813		
SEATTLE	**Main Office** **Sharp Business Systems** 11201 SE 8th Street, Suite 210 Bellevue, Washington 98004 Main Phone: 425-885-4755	**Tukwila Office - Main Warehuse** SBS – Preferred Business Solutions 374 Upland Drive Tukwila, WA 98188 (425) 251-1202	
NEW JERSEY	**Main Office** **Sharp Business Systems** 100 Paragon Drive **Montvale, NJ 07645** Main Phone: (201) 644-2800 Main Fax: (201) 644-2897		
SOUTH CAROLINA	**Main Office** **Sharp Business Systems** 109 Ben Hamby Drive **Greenville**, SC 29615 Main Phone: (864) 675-2000 Main Fax: (864) 675-2153	**SBS – Digital Office Solutions** 1400 Browning Road Ste. 175 Columbia, SC 29210	
GEORGIA	**Main Office** **Sharp Business Systems** 1870 McFarland Parkway Alpharetta, GA 30005 Main Phone: (770) 663 8400 Main Fax: (770) 663 0505	**Rome Sales Office** 316 Broad Street Rome, GA 30161 (770) 663 8400	**Birmingham Sales Office** 2704 7th Ave South Birmingham, AL 35233 (205)815-6030
	Macon Sales Office 519 Bartlett St Macon, GA 31204 478-750-7444	**Columbus Sales Office** 7290 North Lake Drive Suite 506 Columbus, GA 31909 706-577-4339	

MEMPHIS	**Main Office** **Sharp Business Systems** 4050 Mendenhall Rd. **Memphis,** TN 38115 Main Phone: (901) 367-5499 Main Fax:(901) 367-5143		
CHICAGO	**Main Office** **Sharp Business Systems** 2300 Warrenville Road, Suite 170 Downers Grove, IL 60515 Main Phone: (630) 620-6024 Main Fax:(630) 621-5191		
DALLAS	**Main Office** **Sharp Business Systems** Pinnacle Tower 5005 Lyndon B Johnson Freeway Suite 800 Dallas, TX 75244		
Chicago MNS	**Main Office** **Sharp Business Systems** 2300 Warrenville Road, Suite 170 Downers Grove, IL 60515 Main Phone: 888-817-1115 Main Fax:888-817-1115		
HOUSTON	**Main Office** **Sharp Business Systems** 7303 West Sam Houston Pkwy N. **Houston, TX 77040** Main Phone: (713)688-8873 Main Fax: (733)688-1162		
TENNESSEE			
	Sharp Business Systems 7 Sheridan Square, 2nd floor Kingsport, TN 37660 Main Phone: (888) 525-4220	**SBS – Knoxville** 410 N Cedar Bluff Road, Suite 50 Knoxville, TN 37932 (888) 525-4220	**SBS - Tri-Cities Warehouse** 1065 Wilcox Court Kingsport, TN 37660 888-525-4220
AUSTIN/SAN ANTONIO	**Main Office** **Sharp Business Systems - Austin** 14400 The Lakes Blvd. Suite 201, Building C **Pflugerville, TX 78660** Main Phone: 512-835-1000 Main Fax: 512-832-8255	**SBS - San Antonio** 5627 UNIVERSITY HEIGHTS SAN ANTONIO, TX 78249 P: 210-822-3500 F: 210-826-9286	

Attachment 2
Sharp Sales Team

Attachment 1 – Sales Team

National Channel Sales Team

MFP East

Director	East
Territory Business Manager	AR,KY,LA,TN,WV
Sales Rep	Bahamas,Barbados,CI,FL,PR,TT,VI
Regional Color Production Mgr	East
Territory Business Manager	DE,MD,PA
Regional Color Production Mgr	East
Territory Business Manager	AL,FL,GA,MS
Territory Business Manager	CT,MA,ME,NH,NY,RI
Territory Business Manager	NY
Territory Business Manager	NJ,PA
Territory Business Manager	MD,NC,SC,VA

MFP Central

Sales Director	Central
Territory Business Manager	MN
Territory Business Manager	OK,TX
Territory Business Manager	MI,OH
Territory Business Manager	IL,KS,MN,MO,ND,OK
Regional Color Production Mgr	Central
Territory Business Manager	OK,TX
Strategic Account Support Rep	Central
Territory Business Manager	IL,KS,MO
Territory Business Manager	IA,NE
Territory Business Manager	IL,IN,WI

MFP West

Sales Director	West
Territory Business Manager	AK,CO,HI,MT,WA
Territory Business Manager	AZ,CO,MT,NM
Territory Business Manager	CA,OR
Territory Business Manager	CA,GUAM,ID,OR,WA,WY
Territory Business Manager	CA
Territory Business Manager	CA,ID,UT
Regional Color Production Mgr	West
Strategic Account Support Rep	West

MFP GOV & MAJOR ACCTS

Director	East
Govt and Major Acct Manager	AL,DC,GA,MD,NC,SC,VA,PR,(Bermuda)
Govt and Major Acct Manager	MA,ME,NH,NY,RI,VT
Govt and Major Acct Manager	MN,WI
Inside Sales	East
Govt and Major Acct Manager	Bermuda,CT,DE,NJ,PA
Govt and Major Acct Manager	IL,IN,KY,OH,TN,WV
Govt and Major Acct Manager	FL,LA,MS
Director	West
Govt and Major Acct Manager	AR,OK,TX
Govt and Major Acct Manager	IA,KS,MO,ND,NE,SD
Govt and Major Acct Manager	AK,ID,OR,WA
Govt and Major Acct Manager	AZ,CO,HI,MT,NM,WY
Govt and Major Acct Manager	CA,NV,UT

TECHNOLOGY INTEGRATION

Director, Technology Integration	Nationwide
Technology Integration Manager	CA,HI,NV,UT
Technology Integration Manager	AK,ID,MT,ND,OR,SD,WA
Technology Integration Manager	IA,IL,MN,MO,WI
Technology Integration Manager	AZ,CO,KS,NE,NM,WY
Technology Integration Manager	IN,KY,MI,OH,TN,VA,WV
Technology Integration Manager	CT,DE,MA,MD,ME,NH,NJ,NY,PA,RI,VT
Technology Integration Manager	AL,FL,GA,MS,NC,SC
Technology Integration Manager	AR,LA,OK,TX

INSIDE SALES

Director	Nationwide
Document Inside Territory Business Manager	
Document Inside Territory Business Manager	
IDP Inside Territory Business Manager	
IDP Sr. Inside Territory Business Manager	
IDP Inside Territory Business Manager	
Document Inside Territory Business Manager	

IDP SALES

Director	Nationwide
Sr. Engineer/Strategic Accounts	Nationwide
IDP Sales Manager	AL,DC,DE,FL,GA,KY,MD,NC,SC,TN,VA,WV
IDP Sales Manager	AR,IA,KS,LA,MO,MS,NE,NM,OK,TX
IDP Sales Manager	IL,IN,MI,MN,OH,WI
IDP Sales Manager	CA,HI,NV
IDP Sales Manager	CT,MA,ME,NH,NJ,NY,PA,RI,VT
IDP Sales Manager	AK,AZ,CO,ID,MT,ND,OR,SD,UT,WA,WY

IDP NATIONAL ACCOUNTS

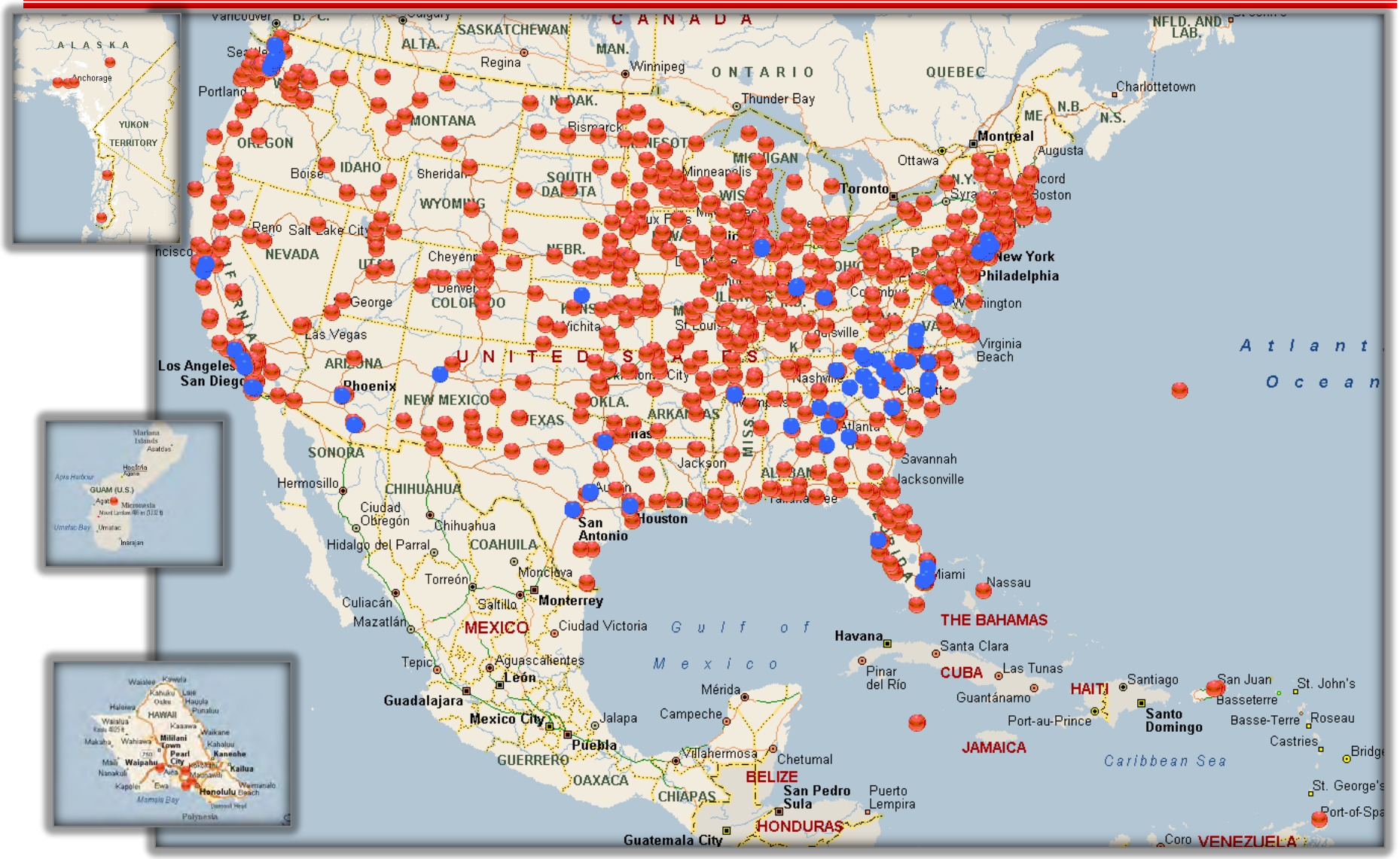
Director	Nationwide
(5) IDP National Account Salespeople	Nationwide

SBS Branch	# of Sales Employees
SBS Arizona/New Mexico	10
SBS Austin / San Antonio	8
SBS Dallas / Ft Worth	9
SBS Florida	13
SBS Georgia	17
SBS Houston TX	10
SBS Memphis, TN	1
SBS Midwest-Chicago	3
SBS Midwest – Indiana	11
SBS New Jersey	8
SBS NoCal - San Francisco	16
SBS North Carolina	38
SBS SoCal - San Diego	20
SBS South Carolina	15
SBS Tennessee	6
SBS Washington DC	5
SBS Washington State	10

Attachment 2.1

SBS and Dealer Location Map

Nationwide Coverage



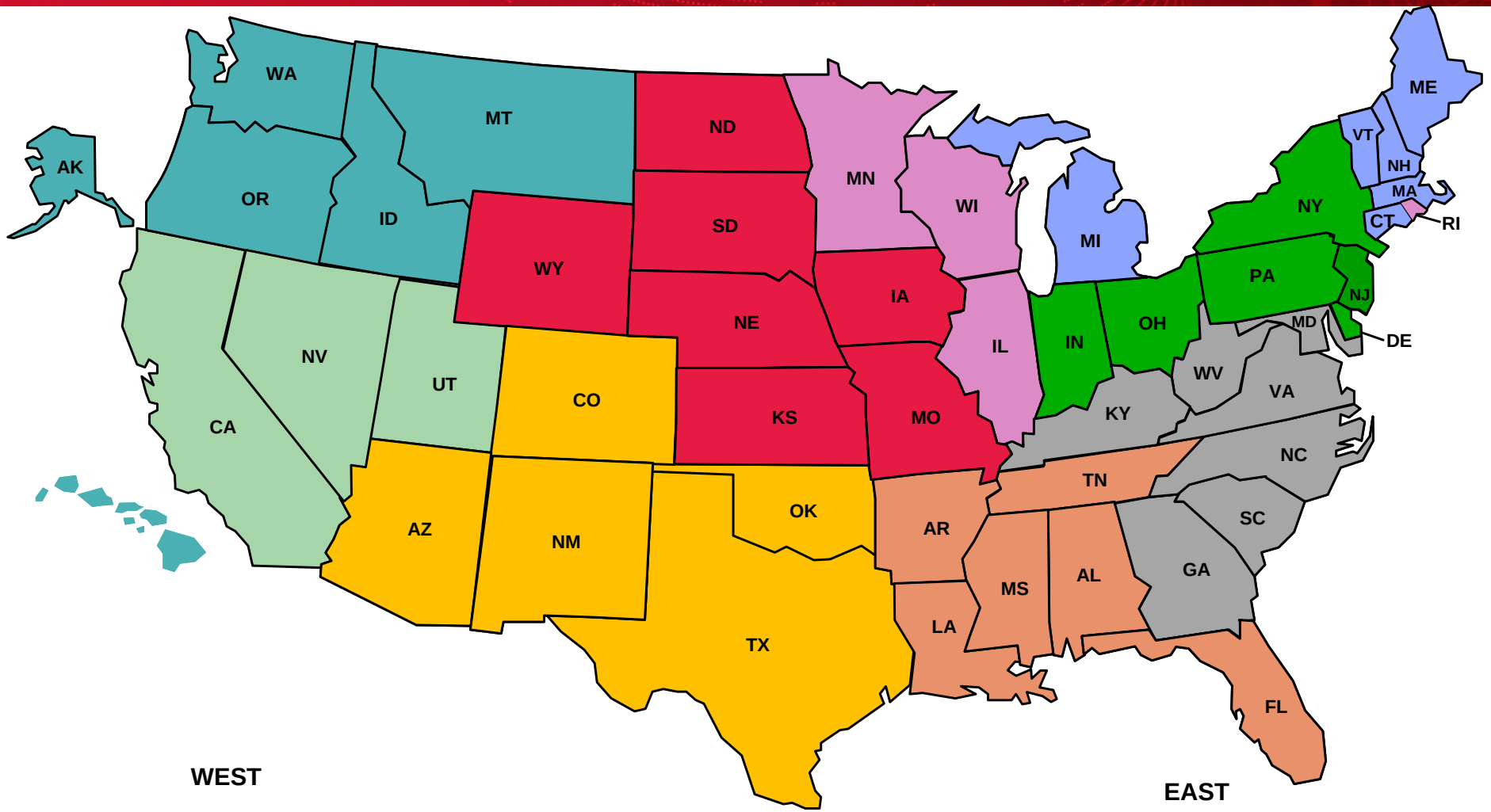
SHARP

Attachment 2.1

GMAM Territory Map

SHARP

Government & Major Account Sales Team



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8/2024

Attachment 3
Service Response and Escalation Process

Response and escalation procedure as outlined in the service procedure below.

Service Call Escalation Process:

Although, service is generally customized and managed locally by the authorized Sharp dealer or SBS locations, a typical service timeline/escalation process for service calls is shown below:

Elapsed Time	Action
0 hour	Customer initiates service call
< 1 hour	Technician contacts customer to provide an ETA
2 – 4 hours	Technician on-site within response target
On-Site 1.5 – 2.5 hours	Escalation Process Begins If Technician is on-site 1.5 – 2.5 hours, has completed a total call and the problem is not resolved: 1. Technician will contact team members 2. Technician will utilize support resources: • Sharp Helpdesk • MySharp Online Support 3. Service Technician will follow-up to determine what further actions will need to be performed If unable to resolve within 3 hours: Technician will notify Field Service Manager or Branch Manager and request Service Specialist on-site support
If parts are needed, the following process must be followed: 1. Contact Manager to locate parts and arrange for pick-up (Check all available resources in the region) 2. Check availability of non-inventory resource machine nearby 3. Check availability and have part shipped overnight to the nearest branch	
4 – 6 hours	Service Technician on-site support Service Technician will utilize all available resources to resolve problem (i.e. other Specialists, Manufacturers, etc.)
8 hours	If after 8 hours and the problem is not resolved: 1. Service Technician requests Manufacturer on-site support 2. Field Service Manager and or Customer request will determine if service loaner is necessary 3. Field Service Manager informs Account Manager of machine status
8 hours	Service Loaner Process begins
8 – 12 hours	Field Service Manager will request a loaner to be delivered to the customer site
1 – 2 days	Service loaner delivered to customer and customer machine is delivered to nearest service location to troubleshoot
2 – 10 days	Manufacturer on-site to troubleshoot (Escalate to Director of Service if manufacturer time frame is unacceptable)
5 – 10 days	Machine repaired and delivered back to the customer

Sharp believes the Service and Maintenance process, as well as, the escalation steps described above will address the majority of situations which may occur with Statewide installations.

Attachment 4
Service Level Agreement

SHARP

SERVICE LEVEL AGREEMENT SAMPLE

MFPs and Managed Print Services

1.1 Technicians

All technicians will be factory trained by SHARP and certified to Service the Devices.

1.2 Standard Service Levels

End Users may negotiate their own Service Level Agreements (SLA) with SHARP. The SLA, shall, at a minimum adhere to the following requirements:

1.3 End-User Training

a. Purchasing Entity may request an initial one-hour training session for each Device ordered under the Contract. SHARP will provide this initial training, free of charge, via one of the following delivery methods: On-site, web-based, or on-line. The delivery method selected for each Device will be at SHARP's sole discretion. Purchasing Entity should be advised that while this initial one-hour of free training shall be provided by SHARP at Purchasing Entity's request, SHARP will not provide substitutions (e.g. free supplies, deeper discounts, etc.) in lieu of this training.

b. In addition to the one-hour training session for each Device, Purchasing Entity may also request an initial, one-hour connectivity training session for technical support, which will include network connectivity and print driver installation. This additional training shall be provided via a delivery method mutually agreed upon by SHARP and Purchasing Entity, and at a mutually agreed upon price. If Purchasing Entity elects to exercise the connectivity training session option, then SHARP will provide the training within ten (10) Business Days of Purchasing Entity's request.

c. SHARP may offer additional on-site, one-hour training sessions for a flat rate fee. Additional charges for travel and per diem, if applicable, must be disclosed to the Purchasing Entity, and mutually agreed upon, prior to Order placement. If additional on-site training is needed SHARP may negotiate fees with the Purchasing Entity prior at the time of need.

d. SHARP will provide on-site or off-site operational training to designated Purchasing Entity personnel, until the personnel are able to operate the Device independently. Pricing for operational training shall be based on a flat rate fee. Additional charges for travel and per diem, if applicable, will be disclosed to the Purchasing Entity, and mutually agreed upon, prior to Order placement.

e. SHARP will provide Device literature, user-manuals, and access to on-line resources, if available, at no charge to the Purchasing Entity.

f. SHARP will provide a toll-free end-user technical support number that Purchasing Entities can utilize for everyday minor troubleshooting (i.e. this does not include network connectivity or print driver installation). SHARP will provide Purchasing Entity assistance during Normal Business Hours.

g. SHARP will provide phone/technical support within two (2) hours of Purchasing Entity's request for assistance, providing such request, and subsequent support, falls within normal business hours.

1.4 Preventative Maintenance. SHARP will perform all Preventative Maintenance Services at the Manufacturer's suggested intervals, or as specified in an Order. Preventative Maintenance shall not be a requirement on desktop Devices.

1.5 Device Performance

a. Device Downtime will be computed from the time SHARP is notified of Device failure until the time in which the Device is fully operational.

b. Device Downtime due to lack of consumable Supplies is not acceptable.

c. SHARP will provide daily communication to the Purchasing Entity regarding inoperable Devices, including updates regarding resolution timeframe, and any parts, Accessories, or Devices on back-order.

1.6 Loaner Device. If any Device is inoperable for two (2) Business Days, due to Device malfunction, as reasonably determined by SHARP, then SHARP will provide the Purchasing Entity with:

a. A loaner Device of similar speed and capabilities until such time as the inoperable Device is now operable.

Repair Parts

a. SHARP will guarantee the availability of repair parts for a minimum of five (5) years after the Purchasing Entity's Acceptance of any Device.

b. All Device components, spare parts, application software, and ancillary Devices that are supplied under any resulting Master Agreement, will conform to Manufacturer specifications.

c. SHARP will be responsible for ensuring that any repair parts are operable and installed in accordance with Manufacturer specifications.

d. Repair parts may be new, reconditioned, reprocessed or recovered.

1.7 Service Zones

a. SHARP will adhere to the following Service Call Response Times based on the distance that their Service Base Location is from the Purchasing Entity:

Service Zone	Definition	Response Time
Urban	Within 60 miles	4 - 6 Hours
Rural	60 – 120 miles	1 - 2 Business Days
Remote	120+ miles, or only accessible by plane or by boat	4 - 5 Business Days

b. Repair or replacement of parts and/or Devices will occur within four (4) Business Days of SHARP arriving at Purchasing Entity's location, with the following exception:

i) If SHARP is drop-shipping a new Device to replace a defective Device, then Purchasing Entity must receive the new Device within three (3) Business Days.

c. SHARP may charge different rates according to each Service Zone.

1.8 Service Logs

a. SHARP will maintain a Service log which describes the maintenance and repair Services provided for each Device.

b. A no-cost copy of Service logs/reports will be provided to the Purchasing Entity within five (5) Business Days of the request.

1.9 Device Relocation

a. Device relocation Services include dismantling, packing, transporting, and re-installing Device.

b. SHARP may charge for this Service based on the following table:

Service Zone	Distance from current placement of Device	Charge
1	Within the same building	Negotiable
2	Up to 50 miles from the building in which Device is currently placed	Flat Rate Fee, plus Per Mile or Hourly Fee
3	More than 50 miles from building in which Device is currently placed	Flat Rate Fee, plus Per Mile or Hourly Fee

*SHARP may charge Purchasing Entities a mutually agreed upon price for special rigging in the event a Purchasing Entity's demographics require such rigging for Zone 1 relocations. The price shall be agreed upon in writing by SHARP and Purchasing Entity prior to any Device relocation in Zone 1.

c. Moves must be performed within thirty (30) calendar days of the Purchasing Entity request. Request may be verbal or written, but SHARP must confirm the request in writing and provide a date that the move will occur. Written confirmation must be sent to the Purchasing Entity within three (3) Business Days of request. In the event that there will be a delay in these Services, SHARP will communicate with Purchasing Entity and agree on a mutually beneficial time-frame.

2. Meter Read Invoicing

2.1 In order for SHARP to generate accurate invoices, Purchasing Entities will provide meter reads within SHARP's requested time-frame.

2.2 Invoices that are generated without receiving the proper meter read information from the Purchasing Entity will not be considered inaccurate.

2.3 The Purchasing Entity will provide written notice of any such alleged invoicing issue and SHARP will be allowed a thirty (30) day cure period to address any such issue. During the thirty (30) day cure period, the Purchasing Entity will not be assessed any late fees for failure to submit payment by the invoice due date.

3. Reporting

3.1 Service Level Calculations

a. SHARP shall produce reports that can be measured against the required SLA components.

Attachment 5
Data Breach Plan and Security Incident Response

SOP#	SECITAD10121		
TITLE:	INCIDENT RESPONSE PLAN		
MAINTAINER:	Information Security	APPROVER:	Office of CIO
STATUS:		VERSION:	1.3
ISSUE DATE:	12/15/2019	PUBLICATION DATE:	7/27/2021
EFFECTIVE DATE:	8/01/2022	REVIEW DATE:	07/30/2022

Title: SECITAD10121 – INCIDENT RESPONSE PLAN

Policy: This Incident Response Plan is a formal set of rules by which those people who are given access to Sharp technology and information assets must abide.

Purpose: The Plan serves several purposes. The main purpose is to inform Sharp users: employees, contractors and other authorized users of their obligatory requirements for protecting the technology and information assets of the Sharp. This is covered separately in The Cyber Security Policy which describes the technology and information assets that we must protect and identifies many of the threats to those assets.
The Incident Response Plan describes when to use, Characteristics of a significant or high visibility Incident, Workforce responsibilities, Incident response Team, reporting, Triage and scoping, preparation, remediation, post incident review, forensic evidence, and incident response checklist.

Scope: This policy applies to Sharp Headquarters, Montvale, and all other Business Units.

SECTION 1: GOVERNANCE

A. OVERVIEW

This document and governance structure provide the oversight of and guidance for the required processes for Sharp Electronics Corporation privacy and data security breach response in compliance with federal and state privacy laws.

B. WHEN TO USE THIS DOCUMENT

This plan is intended to be scalable. Its use is not necessary for every privacy and data security incident, as many incidents are small and routine, requiring only a single responder. It is left to the judgment of any member of the Senior Staff (*defined below*), to determine when to convene an Incident Response Team (IRT), however, it will generally be necessary for all "significant" or "high-visibility" incidents (described below). If an IRT is convened, this plan document must be consulted, and the elements appropriate to the individual incident must be used.

SENIOR STAFF

The CIO Tom McElligott and Director of Managed Network Services Nick Champagne is required to designate either an individual or a functional position to be responsible for the oversight of the investigation of and the determination of notification for breaches. The functional position of the lead site authority is required to be at a level high enough to allow that individual to speak with authority for the company.

The lead site authority, or their designee, will determine whether to convene an Incident Response Team (IRT) and will appoint the IRT Coordinator.

C. CHARACTERISTICS OF "SIGNIFICANT" OR "HIGH-VISIBILITY" INCIDENTS

An IRT will almost always be convened for all "significant" or "high-visibility" incidents. This is an inherently subjective criterion, requiring individual judgment. However, for the purposes of guidance, some examples of such incidents include, but are not limited to:

- Incidents involving VIP's and executives.
- Incidents involving key personnel.
- Incidents for which a press release may or will be issued, or media coverage is anticipated.
- Incidents involving 10 or more affected individuals (incidents involving fewer individuals may still be "significant" or "high-visibility," e.g., VIPs, executives).
- Incidents likely to result in litigation or regulatory investigation.
- Incidents involving criminal activity.
- Any other incident that is likely to involve reputational, regulatory, and/or financial risk of which senior management should be aware.

D. WORKFORCE RESPONSIBILITIES

Every employee has the responsibility to immediately report suspected or known breaches of the privacy or security of restricted information to the IT Service Desk/ Sharp Support Center. 2

Criminal acts, such as thefts, or suspected criminal acts, should also be reported to Kevin Fox SVP and general Counsel for SEC.

E. INCIDENT RESPONSE TEAM

The following are the minimum required individuals or functional areas for the IRT for every breach for which the IRT is convened (*smaller breaches will likely be handled by the Chief Information Security Officer or their staff*):

- IRT Coordinator
- Chief Information Security Officer (may also serve as IRT Coordinator)
- Chief Information Officer (may also serve as IRT Coordinator)
- Legal Counsel
- Senior Director Risk Management

- Department Leadership of affected department or their designee

Any others not listed, may be added to the IRT, as appropriate to the incident:

- Information technology/records management
- Security Operations
- Business Development
- Government Relations/Legislative Liaison
- Regulatory Affairs
- Senior Director Human Resources
- Law enforcement, including FBI, as appropriate
- Other executives, as appropriate
- Internal Audit

F. RESPONSIBILITIES FOR INCIDENT RESPONSE

i. Upon initial determination of a possible breach, departmental management shall notify the CIO/Director MNS designee immediately, who will serve as or appoint the IRT Coordinator.

ii. The IRT Coordinator is responsible for the execution of all the Sections of this plan that are applicable to the specific incident, and may deviate from this plan, after consultation with the IRT, to the extent necessary to respond to the incident.

iii. The IRT Coordinator shall consult with legal counsel to identify possible conflicts of interest in the investigation – in particular, individuals or teams may not lead investigations within their own areas of responsibility. Counsel should also be consulted regarding possible law enforcement involvement, and/or the need for forensic investigation.

iv. The IRT Coordinator shall consult with the General Counsel, or their designate to determine whether Insurance Programs might provide insurance coverage for the incident.

v. The IRT shall ensure that resources are assigned to conduct the investigation, as applicable to the incident. In the event of possible conflicts of interest, those resources must be sufficiently independent to avoid the appearance of a conflict of interest. For electronic breaches, in the event of a possible conflict of interest, the assigned IT resources must be external to the affected department.

vi. For electronic incidents, the designated IT resources shall conduct the initial forensic investigation and liaise continuously with the IRT.

vii. The IRT is responsible for the decision to notify affected individuals and/or regulatory agencies based on data elements that are individually identifiable, and current laws or regulations requiring notification. Policy regarding breach notification must also be considered, as well as the risk of harm to the individuals impacted by the breach. In some cases, even though notification may not be required by law, it may be prudent to notify affected individuals.

viii. The IRT is responsible to ensure that, if necessary, evidence is preserved, and each incident is adequately documented. "Adequate" documentation will stand on its own, without requiring further explanation. The rationale to notify or not to notify must be clearly documented (*Further information on Incident Documentation is in Section 2, below.*)

G. REPORTING RESPONSIBILITIES

The IRT Coordinator must contact the CIO and Director of Managed Network Services as soon as it appears that a "significant" or potentially "high-visibility" incident has occurred, or as soon as an IRT is convened, whichever occurs first. The CIO and Director of Managed Network Services is responsible for notifying appropriate personnel.

The CIO and Director of Managed Network Services designee is responsible for reporting electronic incidents to the authorities, if warranted.

SECTION 2: TRIAGE AND SCOPING

A. OVERVIEW

The triage and scoping phase involve the process of analyzing the information about the situation to determine whether a security incident has occurred. This Section includes guidance for incident identification, initial reporting, priority-setting based on data and system criticality and sensitivity, required collection and analysis of incident information, information preservation, documentation, and communication.

B. WHAT IS A SECURITY INCIDENT?

A security incident may involve one or more of the following:

- A violation of computer security policies and standards.
- Unauthorized computer access.
- Loss of information confidentiality.
- Loss of information availability.
- Compromise of information integrity.
- Denial of service condition against data, network or computer.
- Misuse of service, systems or information.
- Physical or logical damage to systems.

Security incident examples include the presence of a malicious application, such as a virus; establishment of an unauthorized account for a computer or application; unauthorized network activity; presence of unexpected or unusual programs; and computer theft.

C. INCIDENT REPORTING

All suspected or confirmed privacy or data security incidents must be reported in accordance with the Sharp Incident Response Plan Policy. Workforce members that identify a potential incident will initially classify the incident severity based on their perception. The initial severity level may be escalated or de-escalated by the Information Technology staff for an electronic incident. All incident reports are to be made as soon as possible after the incident is identified, and with minimum delay for medium to high severity incidents.

D. REPORTING DESCRIPTION TEMPLATE

Workforce member incident reports are required to be created by the SEC Security Team and must include the following incident descriptors when describing the incident to their designated reporting point:

- Contact information.
- Date and time of incident discovery.
- General description of the incident.
- Systems and/or data at possible risk.
- Actions taken since incident discovery.
- Additional relevant information known at the time.

E. INITIAL INCIDENT DOCUMENTATION 4

Most incidents will not be directly reported to the IRT Coordinator, but most likely will be processed through some form of first level support such as IT service desk support structure or business unit management. If an IRT is convened for an incident, the information identified in *Figure 1* below, or as much of the information as is available, must be collected, documented, and shared with the IRT from first level support.

Figure 1

Information to Record	Description
Ticket #	Use the assigned Help Desk/Sharp Support Ticket number if available.
Reporter Information	Contact information of the Incident Reporter, including full name, user ID, organizational / department unit, email address, phone number, location. If an automated system reported the event, include the name of the alerting software, name of the host the software is installed, IP address, MAC address, physical location of the host.
Impacted Information	Contact information for all parties involved or impacted by the incident.
Severity Level	Suggested Severity Level: **Severe** - Poses an immediate threat to long-term viability of the organization. Catastrophic impact on technology assets and/or data. Likely broad in scope. **Limited Scope** - Poses a significant negative financial or reputational impact to the organization. Limited to a portion of the organization (*e.g. a business unit*) **Security Weakness** - Could cause a negative financial or reputational impact to the organization if exploited. **Informational** - Unlikely to cause a negative financial ore reputational impact to the organization.
Type of Incident	Note all types that apply, including but not limited to: - Compromised System(s). - Compromised User Credentials(s). - Network Attacks (*DOS, Scanning/Sniffing, etc.*) - Malware/Virus (*Ransomware, Trojan, Worm*) - Data Theft / Exfiltration. - Lost Equipment / Theft. - Physical Break-in. - Social Engineering (*Phishing, Vishing, SMishing, In person, Mail, Package, etc.*) - Law Enforcement Request. - Policy Violation.
Incident Timeline	Date, Time, Location that Incident was discovered. Information on the timeline of the incident to date (*i.e. how long ago did the incident occur before discovery*)
Event Detail	Description of the incident, how it was detected, what occurred: - Affected resources. - Affected hosts and workstations (*include host name, IP, MAC address, user name, etc.*) - Affected organizations. - Estimated technical impact of the incident (*i.e. data encrypted, system crashed, business function no longer available*). - Summary of actions taken to date. - Other organizations contacted (*internal and external*). - Cause of the incident if known (*i.e. unpatched host, misconfiguration, etc.*) - List of evidence gathered to date. - Time spent on incident handling and / or additional costs involved. - Comments and information applicable to the incident.

F. PRIVACY / SECURITY INCIDENT REPORT FORM

The online Security Incident Report form located on the Sharp Intranet must be used when reporting incidents. It is likely that complete information will not be available during the initial incident phase however reporting must not be delayed due to lack of information. It is the responsibility of the incident reporter to update the form as additional information becomes available. It is recommended to have more than one repository for this document and the Security Incident Report Form. If an incident impacts the system(s) this documentation is stored on, delays in response to the incident could be experienced.

G. INCIDENT CLASSIFICATION

All incidents that are processed by an IRT shall be classified by the IRT. Incident classification informs those involved of the severity and impact of the incident and ensures that the incident receives the appropriate level of attention. Classification also ensures that the incident is reported timely to management.

If the incident was previously classified before being reported to the IRT (by an IT organization, for example), the IRT must re-evaluate that classification-preferably with a clean-slate approach-and come to its own determination, based on the collective input of the IRT.

The incident classification table, Figure 2 below, provides several incident factors to assist in proper incident classification. Depending on the nature of the incident, some of the incident criteria represented in the table may not be present in a incident. Moreover, if an incident contains characteristics in several different severity columns, the severity of an incident must reflect the highest category. For example: if an incident affects a service that possibly involves personally identifiable information (medium severity) with a likely definite public impact (high severity), the incident should be classified as high severity.

Incident classification is a dynamic process. Incident severity may change one or more times as incident details emerge over time during the investigation process.

Figure 2

Incident Factors	Low	Medium	High
Criticality - Application	Internal Systems and Applications	Internal or External Systems and Applications	Internal or External Systems and Applications
Criticality - Infrastructure	No	Limited Scope	Site-wide Impact
Impact - User / System	Affects few people or systems	Department-wide impact	Site-wide Impact
Impact - Public	None	Potential Impact	Definite Impact
Countermeasures	Solutions are readily available	Weak countermeasures	No countermeasures
Encryption	Robust encryption algorithm (*i.e. FIPS 140 compliant*)	Weak algorithm	No encryption, easily defeated encryption
Resolution Procedures	Available and well-defined	Resolution procedure not well-defined, bypass	No resolution procedures or bypass available.
Information Sensitivity	Affects an individual or system	Affects a site	Site-wide Impact
Protected Information *(Personally Identifiable*	None	Possible	Definite

H. CONTAINMENT STRATEGY

A containment strategy must be implemented that will limit the damage to the organization's resources. The containment strategy must include contact information for various departments and personnel who may be involved in incident response. Containment may involve a combination of technical controls, such as network and system disconnect, as well as media and communications to the public and to staff, depending upon the scope of the breach.

PRESERVATION OF EVIDENCE

Preservation of evidence is discussed in detail in the following Section; however, consideration should be given to preserving evidence during the *Triage and Scoping Phase*, particularly if it becomes apparent that the incident involves criminal activity. Containment, however, takes precedence over preservation while the incident is active. Proper preservation of evidence requires establishment of chain of custody procedures prior to an incident. Any electronic evidence should be properly tracked in a documented and repeatable process. Preservation of evidence is also required for the purposes of insurance coverage, and failure to do so may limit or impact insurance claim coverage – consult with Risk Management/Services for incident-specific guidance.

INCIDENT DOCUMENTATION

The importance of adequate and sufficiently detailed documentation cannot be over-emphasized, especially if regulatory investigation(s) or lawsuit(s) arise as a result of the incident. Very serious consideration must be given to dedicating a single, full-time resource to adequately document the decisions that are made, and the actions taken, particularly for larger incidents. It is especially important to begin this type of documentation as soon as the need for an IRT is identified, so that documentation is not done retrospectively (*to the greatest extent practically possible*).

Here are some kinds of questions that the documentation should consider:

a. Objective: prove that no other systems (*and hence forensic data*) need to be considered by the analysts and be sure we have a complete inventory of what's in-scope.
   1. How was the decision made on how the incident was scoped, and thus what forensic data is in-scope or out-of-scope?
   2. How do we know we have all the relevant data in the hands of the analyst team?
   3. Why did we look at these systems, and no others?

b. Objective: a repeatable procedure that stands on its own, so that the original forensic data would not need to be turned over to opposing counsel.
   4. How the determination was made about which people were potentially affected by the incident?
   5. How could this decision process be repeated to generate the same list, by another analyst?
   6. Are the data and the scripts processing the data organized and documented enough to allow for this?

c. Objective: show the details of notification clearly met due diligence.
   7. How were notifications made to the affected people?
   8. Where did you get the notification addresses (*email, US mail, etc.*)?
   9. How were bounces/returns handled?
   10. How were conflicting or multiple addresses handled?
   11. What did you do if you didn't have an address for people?

I. IDENTIFY AND ENGAGE RELEVANT EXPERTISE

Identifying and engaging groups and individuals with relevant expertise is critical to accurately triage an incident and determine its scope. In large or complex cases, the IRT should consider bringing in a third party, to assist in the triage and scoping effort. The insurance carrier may conduct a forensic investigation and participate in the incident response activities. Cooperation with the insurance carrier's forensic investigator is required under the terms and conditions of the insurance policy.

J. COMMUNICATION DISCLOSURE STRATEGY

Proper handling of internal and external communications is critical in the initial phases of incident response. It is quite possible that an initially small incident could blossom into a large multi-site incident. It is also quite possible that a suspected incident could be determined to be unfounded.

Improper handling of communications could lead to embarrassment and possible reputation damage in the event of a false positive or could tip off any malicious attackers to cover their tracks, thus exposing the organization to more risk.

Communication of incidents should be handled on a need-to-know basis, especially early on. Preferably these communications should be handled via an encrypted or "out-of-band" mechanism (*such as cell phone, be wary of VoIP telephony systems during the incident*) to avoid exposing information to an attacker.

Legal counsel should be consulted to determine whether the investigation will proceed under the direction of counsel and attorney-client privilege. If so, counsel may establish procedures for communication and documentation.

All communications about the incident external to the IRT should be approved by the IRT.

All communications about the incident external to the organization must be approved by the IRT.

If it is suspected that other locations are vulnerable to a similar attack, the IRT Coordinator should alert the other locations.

In Exhibit D, lists the contact information for the senior staff via cell phone and personal email address. These email addresses should only be used if communicated up front, and then only from non-company devices.

REFERENCES

NIST 800-61, Computer Security Incident Handling Guide SECTION 3: EXECUTION

SECTION 3: PREPARATION

The IRT should collect and/or review the incident documentation and event reports. This information should first be verified as being factual (*information may have been miss-reported, or incorrectly documented*). The IRT should assign the incident severity or re-consider its appropriateness if already assigned. The IRT should determine who, outside of the IRT, needs to be notified of the incident, both internal and external to the affected site and the organization, and make those notifications. Information should be restricted to a need-to-know basis.

If the incident requires computer forensic analysis, arrangements must be made to gain access to the data and devices involved in the incident. Refer to Exhibit A: Forensic Evidence Methodology.

At this stage, thoroughness is more important than speed. The primary objective is to maintain and restore business continuity.

Every incident should be treated as if it will lead to a court case. Establish robust documentation procedures, by, for example, including the date and time of every entry in the incident log, and signing every page of the log. Document each individual's time spent on the incident, and any other incident response costs.

Refer to Exhibit B: Incident Response Check List.

A. CONTAINMENT

The IRT Coordinator must ensure that enough staff with appropriate technical skills are assigned to do an effective job of containment.

The IRT must assess whether to disrupt services to internal or external customers. Decisions of this nature must be made in consultation with the appropriate senior leadership and an evaluation of whether the systems impact critical services.

If not already accomplished:

- Document how the incident was detected and contained.
- Document all activities and include a date / time log as appropriate (*i.e. who did what and when*).

B. ANALYSIS: DATA & SYSTEMS

ASSESS THE CAUSE AND TYPE OF BREACH

Depending on the documentation provided to the IRT, it should either validate or determine what types of data is involved (*e.g., customer information, personally identified information (PII)*, which identifiers were involved, whether the data was encrypted (and the method / strength of encryption), adequacy of password security, the type of incident, and whether logging was active and adequate. It is particularly important to validate information provided to the IRT as some breaches have initially overlooked PII. The cause of the breach is determined by technical analysis and investigation, as described below.

FORENSIC ANALYSIS

Forensic analysis entails a technical examination of evidence, preservation of that evidence, preservation of the chain-of-custody of the evidence, documentation of observations, and analysis drawn from logical conclusions based on the evidence, absent opinion or conjecture. When conducting a forensic analysis, the analyst must adhere to the following principles:

- Analysis must be an unbiased examination of the evidence submitted.
- The original evidence must be preserved intact; every effort must be made to work only on copies of the original.
- Forensic analysis does not pronounce or imply guilt. The purpose is to determine whether indicators exist to confirm the incident under investigation.

Develop and record an incident hypothesis:

- How does the evidence support / contradict it?
- What did you do, what evidence did you find, and how did you test the hypothesis?
- What important interactions took place?
- Were there any other ideas at the time?

Record anything that helps the organization collectively remember things accurately.

- Report only verifiable information.
- Unless critical to the analysis, do not use names of persons, companies or organizations in the report. Instead refer to "subject", "suspect", or "victim".
- Be precise. Statements such as "numerous", "many", "multiple hundreds", etc. should be avoided.
- Specifically state the finding, as well as the precise locations of information.
- Identify the evidence being analyzed as thoroughly as possible.

C. REPORTING FINDINGS

The complete evidence collection and subsequent analysis process should be documented thoroughly and in detail.

Complete and submit the Incident Report, ensuring that the following information is included:

- High-level description of the incident and its scope.
- Impact on the organization.
- Actions taken to prevent future occurrences.

Recommendations for further action create a technical report that includes:

- Detailed information about the event, including actions taken and personnel involved.
- Detailed information about the investigation.
- When, where, and from whom the evidence was received (*or taken*).
- The physical analysis (*visual evaluation*), including brand names, model numbers, and serial numbers.
- The forensic duplication, including how the image was made (*for digital evidence*), the software and hardware used to make the image, and the hash comparison results.
- Every step taken in the analysis of media. Explain what tools were used and what was or was not discovered as a result of these processes. Document other information such as: number and size of sectors, operating systems, significant software, anti-virus, crash-guard software, etc.
- All conclusions reached.
- How and when the evidence was returned or the way it was disposed.
- Data used in this report should reference collected evidence and be verifiable.

D. NOTIFICATION PROCESS

General categories to consider in the notification processes:

- Identify the victims of data theft and cross-reference with other databases to compile the most recent contact addresses.
- Develop a Call Center: Decide on using an internal vs. external; toll-free telephone number; determine the staffing (*numbers*) and coverage hours and days of week; train staff to respond to incident calls (*provide standard scripts*); comfortable setting (*head-sets, quiet area, computer*), etc.
- Communications Plan: identify who needs to be notified (*internal / external*), who is responsible, co-ordinate the response and message; develop internal FAQs; press release draft; escalation guide for call center; formal notification to other agencies, vendors, donors, politicians; media contact persons; press briefing.
- Notification methods: internal e-mail, US mail, media alert / press release; mail house / breach response company; type of letterhead and whose signature; envelope style; finalize the letter and determine whether to include FAQs with the letter.
- Refer to Exhibit C: Components of a Notification Letter.
- Administrative issues: Determine who signs the letter, which letterhead, style of envelopes, establish a separate account / index # for mailing expenses and for tracking all expenses, order stationery and envelopes for the mailing.
- Regulatory agencies: determine which agencies, if any, require notification; provide each agency with their required information, in the format and manner (*electronic, written, etc.*) each requires.
- Policy / Legal Issues: Consult with Organization Counsel to identify possible legal issues that may need clarification; develop responses.
- Notification Launch & Co-Ordination: Update relevant stakeholders prior to sending the letters.
- Document:
  - Responses to letters and concerns.
  - Include any unauthorized disclosure of PHI on the Disclosures log.
  - Include any sanctions in the HIPAA sanctions log.

E. TIMING OF NOTIFICATIONS

Timing of notification may be impacted by regulatory requirements of the organization and / or impacted external customers. Understanding this impact and reacting accordingly will be the responsibility of the IRT and the organizations legal counsel.
If applicable, refer to the most recent versions of the documents entitled Comparison of US State and Federal Security Breach Notification Laws for guidance on regulatory requirements for the timing of notifications to affected individuals, regulatory agencies, and the media, if appropriate.

SECTION 4: REMEDIATION AND POST-INCIDENT REVIEW

A. RESPONSIBILITIES

The IRT Coordinator initiates and coordinates remediation and post-incident activities as soon as basic risk mitigation activities have been taken to stabilize the environment. The IRT Coordinator keeps the CIO and Director of Managed Network Services designee informed of status and actions being taken throughout the remediation and post-incident review process.

Based on reviews of findings at the time, and an assessment of project size and complexity, the IRT Coordinator convenes one or more Remediation and Post-Incident Review Teams (PIRTs).

- The IRT Coordinator and PIRTs document findings and activities continuously throughout the post-incident review.
- Scopes of various PIRTs may be segmented by type of technical expertise required, and/or by required knowledge of policy or organizational issues, as appropriate for the situation.
- The IRT Coordinator may be a participating member of PIRTs or may delegate the work to other individuals. In any case, the IRT Coordinator maintains continuous, close communication with PIRTs, and over-all control of remediation and post incident review activities.
- PIRTs analyze conditions in the IT environment local to the incident, including technical, policy, and organizational aspects. Scope of review includes circumstances and activities before the incident as well as during the response.
- Throughout the process, the IRT Coordinator and PIRTs continue to analyze implications of local IT environment issues and assess scope of areas potentially affected, potentially including other IT environments throughout the network.
- The IRT Coordinator and PIRTs prepare an action plan for recommended changes to improve the local environment going forward.
- PIRTs document lessons learned, including aspects that were good as well as those which were problematic.

B. TECHNICAL ACTIONS

Specific technical review activities should include:

- Review whether remediation of affected local system(s) is complete.
- Vulnerable hardware or software has been hardened against any break-ins, future attacks, or other security issues (*e.g. installed patches, updated versions, replaced vulnerable sections of code*).
- Conduct a root-cause analysis.
- Assess whether security vulnerabilities can be adequately remediated by making changes within the current environment or a new/replacement environment should be created.
- Take needed actions to restore essential systems to functioning status, either in the original or a repaired environment, or determine that the activities must cease or be suspended until a different or rebuilt environment can be created.
- If replacing the environment:
  - Review technology choices
  - Design proposed new environment
  - Create new (replacement) environment
  - Bring in preserved data or re-create the data anew
- Identify any areas where different technical measures would have prevented the breach or improved results in this environment. Also identify what technical measures worked well.
- Consider whether continuous monitoring of the local environment needs to be implemented or enhanced, including what type(s), and whether an outside neutral party should conduct the monitoring.
- Consider whether issues before the breach or during the response had detrimental impact on any out-of-scope systems, either locally, on the local network, or on the Internet at large. If so, conduct outreach to alert other appropriate contacts of possible need for reviews to discover whether they experienced impact.
- Analyze whether to recommend additional types of reviews in the local environment or elsewhere throughout the network.
- Share lessons learned with appropriate contacts.

C. POLICY AND ORGANIZATION

Analyze sufficiency of policies and procedures, efficacy of organizational structure, and accountability of those who were involved, or should have been involved, in risk mitigation and in the response. Include internal and external environments and individuals who are staff, management, and organizational leaders.

Review performance by individuals prior to the incident, including whether:

- Sufficient roles and responsibilities relevant to this particular type of incident had been identified and were adequately documented in written procedures;
- Role holders had been clearly informed of their responsibilities, and provided with requisite knowledge and skills to fulfill those responsibilities;
- Role holders were regularly reviewed for performance of risk mitigation responsibilities (*i.e. security assessment and implementation of commensurate protective measures*).
- Review performance during the incident response, including whether individuals:

  - Proactively assumed appropriate level and type of involvement in the response.
  - Followed documented response procedures when available and appropriate.
  - Acted productively and responsively to directions given by the response team and/or other leadership individuals, as appropriate.
  - Created and maintained adequate documentation of the incident response.
  - Acted with honesty and integrity to obtain needed information and perform appropriate investigatory actions.

The IRT Coordinator will review whether, in the response to this incident, reporting lines were clear and organizational structures worked effectively (*e.g. lines of communication were sufficient and effective, escalation was paced appropriately, media communications were handled well, sufficient expert resources were available*).

D. RECOMMENDATIONS AND NEXT STEPS

The IRT Coordinator assesses findings and recommendations of the PIRT(s), and then issues a report of the incident and its response to the CIO and Director of Managed Network Services designee, including findings and recommendations. The report should be formatted in a modular manner for discrete use in varied communications with audiences having different levels of security clearance. The IRT Coordinator then leads follow-up actions, including:

- Document the vulnerabilities (including information from the Triage and Scoping Phase):
- Locations and/or events where the failures or compromises occurred.
- Likely causes of the problems with supporting details.
  - hardware, software
  - operational procedures
  - staff misconduct or insufficient skills
- Identify any areas where different technical remediation measures would have improved results in this environment. Analyze whether upgrades could and should be applied to other areas within the larger environment. If so, recommend how to apply improvements to other areas.
- Upon approval of the CIO and Director of Managed Network Services designee, works with the CIO and other stakeholders to convene appropriate team(s) to start remediation activities throughout the environment.
- Prepare detailed action plans and/or project descriptions to improve the technical environment both locally and throughout the network.
- Identify any areas where policy, guideline, or organizational structure changes would have improved results; then work with responsible site authorities (*e.g. IT Policy Controller, Security Committee, Policy Review Board, and/or executives*) to propose, refine, and issue any new or updated policies, guidelines, procedures, or organizational structures as deemed appropriate.
- Determine whether broad education, training, and/or awareness efforts are necessitated. If appropriate, develop and deploy general or targeted education, training, and/or awareness.
- In close cooperation with organizational contacts responsible for providing "due process" rights, ensure that responsive personnel actions or misconduct actions are considered and are pursued when appropriate.
  - Organizational responses may range from education or documented advisements up through escalation to dismissal.
  - Some actions may be referred to outside agencies for investigation and possible imposition of criminal proceedings.
- Identify and document needed corrective actions
  - Begin corrective actions
  - Track progress of corrective actions
  - Verify that the actions corrected the problem or re-assess needed corrective actions.
- Identify aspects of the response environment that served the organization well and analyze how/whether to apply the tenets of those to other areas within the larger environment, through outreach, cloning of local procedures, or other means.

EXHIBIT A: FORENSIC EVIDENCE METHODOLOGY

Once an incident has been declared and a decision has been made to preserve electronic evidence for use in either administrative, civil or criminal remedies, specific steps should be taken to ensure integrity of data and preservation of evidence.

Maintain a chronological log (date and time) of actions taken and sign each page.

DETECTION

Type of incident and possible locations for evidence. The list below is not all-inclusive and should not limit the scope of evaluation as to where digital evidence may only be found.

Type of Incident	Possible Locations of Relevant Evidence
Network Intrusions	System logs, User logs, Proxy logs, Router & Firewall logs.
Email	Mail servers, Router & Firewall logs, Individual workstations, Backups, Proxy or mail journaling services.
Internal Employee or Contractor Activity	System Logs, Mail Server Logs, User Logs, Proxy Logs, Router & Firewall logs, Individual workstations, removable media.

PRESERVATION OF EVIDENCE

Consult with Legal counsel prior to searching or seizing computers.

Chain-of-custody: utilize a chain-of-custody form for documenting and securing evidence items recovered during an incident, and the date/time and identity of team members involved.

The following concepts should be applied:

- Actions taken to secure and collect electronic evidence should not change the evidence.
- Persons conducting examination of electronic evidence should be trained and preferably certified for this purpose.
- Activity relating to the seizure, examination, storage, or transfer of electronic evidence should be fully documented, preserved, and available for review.
- Incident responders should use caution when seizing electronic evidence devices. The improper access of data stored on electronic devices may violate provisions of federal law, such as the Electronic Communications Privacy Act (ECPA). Consult with Legal Counsel.

COLLECTING EVIDENCE

Securing and evaluating the scene: the first responder should evaluate the scene and formulate a search plan. The condition of electronic devices should not be altered unless a threat to the safety of persons is indicated, or business operations are such that continued operation or non-operation threatens vital business operations. The decision should be made in consultation with the IRT.

Protect perishable data both physically and electronically, such as data found on tablets, caller

ID boxes, cell phones, smart phones and other similar devices.

"Volatile" data, such as network connections, processes, login sessions, open files, network interface configurations, and the contents of memory, should be carefully captured from active systems.

HANDLING OF EVIDENCE

Full forensic disk images should be made to sanitized write-protectable or write-once media. File system backups should not be used for investigatory and evidentiary purposes. The analysis should be performed on an image, rather than the original, which should be preserved in its original state to the greatest extent possible.

FORENSIC DOCUMENTATION

Description of the incident and how it was detected. Determine when the incident started (if possible) and how soon the organization detected it.
Record exact dates and times if known.

Observations about the condition and location of the computer system including power status of the computer and related electronic components.

- Photograph, if possible, the entire scene to create a visual record as noted by the first responder.
- Preservation of evidence. Document how and when the evidence was returned or the way it was disposed.
-

EXHIBIT B: INCIDENT RESPONSE CHECKLIST

An Incident response checklist should be established to cover key milestones and adjusted with more granular detailed steps as part of the Preparation process.

INCIDENT RESPONSE CHECKLIST HEADER INFORMATION

Date:	[DATE PRODUCED]
Last Update:	[DATE OF LAST UPDATE]
Version:	[VERSION NUMBER]
Author:	[AUTHOR]
Last Updater:	[LAST PERSON TO MAKE AN UPDATE]
Maintainer:	[PERSON RESPONSIBLE FOR MAINTAINING]

INCENDENT RESPONSE CHECKLIST KEY MILESTONES

1. Identification
   1.1. Identify the victims impacted by the incident.
   1.2. Identify impacted systems.
   1.3. Incident Response Team assembles
   1.4. Document.
2. Containment
   2.1. Triage to reduce incident from spreading.
   2.2. Preserve data when possible, unless doing so will increase risk during containment.
   2.3. Document.
3. Forensics
   3.1. Evidence collection following proper evidence handling. 3.2. Document.
4. Notification
   4.1. IRT works with executives to develop communication plan. 4.2. Document.
5. Remediation
   5.1. IRT involves necessary technical experts to resolve incident. 5.2. Document.
6. Post-Incident Review

6.1. Post-Incident Response Team assembled.

6.2. Detailed review of incident.

6.3. Report with Findings & Recommendations delivered to IRT and Executives.

EXHIBIT C: COMPONENTS OF A NOTIFICATION LETTER

Edit the following components into a letter of notification or a web site statement. The letter or statement must be written in plain language. Do not disclose anything that might hamper the investigation or give additional information to those who would do harm.

- What happened?
- When did the breach occur and/or when was it detected?
- How was it detected?
- What data was potentially compromised?
- How much data was compromised?
- Whose data was compromised.
- Why you are being notified.
- What steps are being taken, *e.g., machine off the net, law enforcement notified (local, FBI), credit card companies notified (for cases where contact information is needed about cardholders), etc.*
- Is any data known to be fraudulently used or is notification precautionary?
- Was the notification delayed as a result of a law enforcement investigation?
- What steps should individuals take? *Example: Place a fraud alert with credit bureaus, contact credit card companies, close accounts, etc.*
- Suggested Text: Although there is no evidence that an unauthorized person has obtained your personal information and is using it, there are some steps you can take to protect yourself...
- Apology or statement of commitment to security. Example: We regret that your information may have been subject to unauthorized access and have taken remedial measures to ensure that this situation is not repeated. We are committed to maintaining the privacy of <category of> personally identified information and takes many precautions for the security of personal information. In response to incidents of theft like this one and the increasing number of internet-enabled computer attacks, we are continually modifying its systems and practices to enhance the security of sensitive information. We sincerely regret any inconvenience this incident presents to you.
- Anticipated next steps, if any. e.g., intention to notify if any additional information becomes available.
- Who to contact for additional information? Contact name, number, hours of availability, website, hotline, e-mail address, etc. Should you have further questions about this matter, please contact [name of contact], at [e-mail address of contact] or [phone number].
- Signature. Who makes the most sense – CEO, President, CIO, other contact familiar to the individual, consider multiple signatures for different constituent groups?
- Letterhead. Decide which institutional / facility letterhead to use.

EXHIBIT D: EXECUTIVE PHONE NUMBERS AND ADDRESSES

It is recommended that an active list of key individuals contact information is maintained in multiple formats and locations. Below is an example of the information that should be captured. Additional information as deemed necessary should be included.

Name	Role	Corporate email	Personal email	Mobile Phone	Home Phone	Alternative Contact

EXHIBIT E: OFFSITE STORAGE OF INCIDENT RESPONSE DOCUMENTATION

It is recommended that this plan and supporting Incident Response documentation, including those of an active or past incident are stored in one or more repositories. The purpose of the below example is to illustrate the need for this information to be stored and available to the IRT as applicable.

Do not store passwords here, please use a more secure method.

Name	Role	URL	Account Username	Password
				Listed for illustrative purposes only – do not store passwords here.

EXHIBIT F: INCIDENT NOTIFICATION LIST

A documented list of impacted internal and external individuals and organizations should be maintained along with a log of when and with whom communication has taken place. Assigning a documentation reference number to any correspondence (electronic or otherwise) and tracking on the notification list is recommended.

Name / Organization	Status	Date Added	Contact	Email	Phone	Documentation Reference	Notes

EXHIBIT G: EXTERNAL CONTACT LIST

A documented list of external individuals and organizations that the IRT needs to contact should be maintained. Contact with these entities should be made only after consultation with Executives and Legal counsel.

Name	Role	Organization	Email	Phone Number

Attachment 6
Sharp 2023
Annual Report

SHARP

Be Original.

111th ANNIVERSARY

Annual Report 2023

For the fiscal year ended March 31, 2023

Annual Report 2023 For the fiscal year ended March 31, 2023

Business Philosophy, Business Creed

Business Philosophy

We do not seek merely to expand our business volume. Rather, we are dedicated to the use of our unique, innovative technology to contribute to the culture, benefits and welfare of people throughout the world.
It is the intention of our corporation to grow hand-in-hand with our employees, encouraging and aiding them to reach their full potential and improve their standard of living.
Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders …indeed, the entire Sharp family.

Business Creed

Sharp Corporation is dedicated to two principal ideals:

"Sincerity and Creativity"

By committing ourselves to these ideals, we can derive genuine satisfaction from our work, while making a meaningful contribution to society.

Sincerity is a virtue fundamental to humanity …
always be sincere.

Harmony brings strength …
trust each other and work together.

Politeness is a merit …
always be courteous and respectful.

Creativity promotes progress …
remain constantly aware of the need to innovate and improve.

Courage is the basis of a rewarding life …
accept every challenge with a positive attitude.

Corporate Motto

Be Original.

From the beginning, Sharp has been driven by originality.
We originate technologies that enhance lifestyles,
Inspire innovations that support individual expression,
And create products that let you be you.
There is only one Sharp.
There is only one you.
Be Original.

SHARP

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1 Message to Our Shareholders
2 Accelerating the Establishment of SHARP as a Powerful Corporate Brand
5 R&D, Intellectual Property, and Standardization
6 Financial and Non-Financial Highlights
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14 Social Initiatives
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Forward-Looking Statements

This annual report contains certain statements describing the future plans, strategies and performance of Sharp Corporation and its consolidated subsidiaries (hereinafter "Sharp"). These statements are not based on historical or present fact, but rather assumptions and estimates based on information currently available. These future plans, strategies and performance are subject to known and unknown risks, uncertainties and other factors. Sharp's actual performance, business activities and financial position may differ materially from the assumptions and estimates provided on account of such risks, uncertainties and other factors. Sharp is under no obligation to update these forward-looking statements in light of new information, future events or any other factors. The risks, uncertainties and other factors that could affect actual results include, but are not limited to:

(1) The economic situation in which Sharp operates;
(2) Sudden, rapid fluctuations in demand for Sharp's products and services, as well as intense price competition;
(3) Changes in exchange rates (particularly between the Japanese yen and the U.S. dollar, the euro and other currencies);
(4) Regulations such as trade restrictions in other countries;
(5) The progress of collaborations and alliances with other companies;
(6) Litigation and other legal proceedings against Sharp;
(7) Rapid technological changes in products and services.

Message to Our Shareholders

Contributing to the Achievement of a Sustainable Society through Business and Technology Innovation

We believe it is our social responsibility to contribute solutions to social issues through our business activities, including solutions addressing climate change and human rights.

Beginning in the previous fiscal year, we placed greater emphasis on ESG-focused management, focusing primarily on (1) Strengthening our technological capabilities; (2) Fostering a global mindset; and (3) Pursuing management that makes the most of our people (HITO). We intend to create new businesses even more rapidly, supported by these three initiatives.

To this end, we reorganized our business group structure into three brand businesses and two device businesses. Our brand businesses consist of Smart Life & Energy, Smart Office, and Universal Network, while our device businesses consist of Display Device and Electronic Device. In addition, we established organizations specializing in new business development under the umbrella of each of these businesses.

We also established a new Incubation Committee and Innovation Committee to strengthen our technological capabilities further.

The Sharp organization intends to work together as One SHARP, developing innovative technologies and devices that embody our ambition to be a game changer, creating uniquely Sharp innovations across multiple fields, including life and work styles. Our aim is to redefine SHARP as a powerful corporate brand representing a company closest to people and society, constantly proposing new value.

In May 2023, we established the Sustainability Committee, chaired by me. We are stepping up our efforts to create a sustainable society, and this committee will play a central role in delivering on medium-term environmental goals to ensure we achieve the *SHARP Eco Vision 2050*, which includes our commitment to achieve net zero CO_2 emissions from Sharp business activities.

At the same time, we are accelerating initiatives to solve global social issues effectively. In 2009, we signed the United Nations Global Compact. As a participant in this compact, we continue to support the 10 principles related to human rights, labor, the environment, and anti-corruption. We also share the vision and mission of the Responsible Business Alliance (RBA)*, which we joined in 2021, across the Sharp Group.

As we state in our Business Philosophy, our future prosperity is directly linked to the prosperity of our customers, dealers, shareholders...indeed the entire Sharp family. We strive for ESG-focused management in unison with our stakeholders, contributing to the achievement of the SDGs and the creation of a sustainable, better world that leaves no one behind.

* A non-profit organization that promotes social responsibility in the global supply chain.

October 2023

Robert Wu
President & Chief Executive Officer

Accelerating the Establishment of SHARP as a Powerful Corporate Brand

See the following for more information on Sharp's history.
https://global.sharp/corporate/info/history/

Business Philosophy and Business Creed

The founder of Sharp, Tokuji Hayakawa, once said, "Make products that others want to imitate." This message of Sharp's founder Tokuji Hayakawa encapsulates management's stance of aiming to become a trusted company by contributing to society as a manufacturer that is among the first to grasp the needs of the next era.

Sharp clearly stated this founding spirit in our business philosophy and business creed in 1973. Furthermore, in 2016, Sharp announced our corporate motto of "Be Original," which incorporates a strong commitment to continue operating as a company that inherited the spirit of sincerity and creativity of founder Hayakawa. Our promise to customers around the world is that we will continue as a brand that creates new and unique value.

Founder Tokuji Hayakawa

We are committed to help develop society going forward by continuing to embody our business philosophy and business creed.

Business Philosophy

We do not seek merely to expand our business volume. Rather, we are dedicated to the use of our unique, innovative technology to contribute to the culture, benefits and welfare of people throughout the world.
It is the intention of our corporation to grow hand-in-hand with our employees, encouraging and aiding them to reach their full potential and improve their standard of living.
Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders …indeed, the entire Sharp family.

Business Creed

Sharp Corporation is dedicated to two principal ideals:

"Sincerity and Creativity"

By committing ourselves to these ideals, we can derive genuine satisfaction from our work, while making a meaningful contribution to society.

Sincerity is a virtue fundamental to humanity …
always be sincere.
Harmony brings strength …
trust each other and work together.
Politeness is a merit …
always be courteous and respectful.
Creativity promotes progress …
remain constantly aware of the need to innovate and improve.
Courage is the basis of a rewarding life …
accept every challenge with a positive attitude.

Future Direction of Sharp: Accelerating the Establishment of SHARP as a Powerful Corporate Brand

Sharp integrates the unique technologies and innovative devices that we have accumulated over the years to provide hardware, services, and solutions to society that are unique to our company. Through these efforts, we work to solve various social issues.

Sharp has two business segments: the brand businesses, which includes refrigerators, solar cells, digital multi-function printers (MFPs), PCs, TVs, and mobile phones; and the device businesses, which includes display modules, camera modules, and other devices.

In the brand businesses, we will continue to expand overseas business and create high-value-added products to strengthen the Sharp brand globally.

In the device businesses, we will strengthen competition by leveraging collaborations with other companies while creating unique devices that support the advantages of our brand business and expanding sales as One SHARP.

At the same time, we will accelerate the creation of new businesses by developing innovative technologies and devices that will enable us to be a game changer.

Through these efforts, we will build a business promotion system centered on brand businesses and accelerate the establishment of SHARP as a powerful corporate brand that is closest to people and society, constantly providing new value.

Establishing a New Business Promotion System to Accelerate Business Reform

Sharp reviewed the company business promotion system aiming to further accelerate business reform.

We reorganized the business group structure into three brand businesses (Smart Life & Energy, Smart Office, and Universal Network) and two device businesses (Display Device and Electronic Device) to clarify focus areas and maximize synergies among our businesses.

Sharp also newly established the Incubation Committee and the Innovation Committee to strengthen our technological capabilities, including cutting-edge technologies such as AI and robotics.

Furthermore, we established organizations under each business group that are dedicated to new businesses. These organizations will play a central role in the accelerated establishment of businesses that will serve as pillars for future growth.

Specifically, we will strengthen the following initiatives in the following businesses: food, water, environment, healthcare, B2B, and next-generation solar cell initiatives in Smart Life & Energy; MFP strategic products and AI-based solutions in Smart Office; and XR, local 5G/pre-6G, and other initiatives in Universal Network.

New Business Promotion System to Accelerate Business Reform

Brand Businesses

Device Businesses

R&D

Accelerating the Establishment of SHARP as a Powerful Corporate Brand

See the following for the latest financial information.
https://global.sharp/corporate/ir/library/financial/

Initiatives in Fiscal 2023

Initiative Policies

We expect overall demand in fiscal 2023 to retain the overall sluggishness in fiscal 2022 due to a rebound resulting from the special needs during COVID-19, as well as global inflation, rising energy costs, and geopolitical issues.

However, we expect carbon neutrality and digital transformation-related fields to see solid demand. We expect the outlook to remain uncertain, despite the easing of impacts from supply chain disruptions, such as semiconductor shortages, soaring raw material prices, and rising logistics costs.

In such an environment, Sharp will make a united effort to reach annual profitability in fiscal 2023 by conducting a fundamental review of each business, developing high-value-added products and services, creating new products, and strengthening our overseas business.

We will also pursue efforts to build a business promotion system centered on our brand businesses by thoroughly implementing (開源節流), i.e., business expansion (開源) through the development of new products, new markets, and new businesses, as well as the establishment (節流) of a more muscular management structure.

Major Initiatives by Business

	Brand Businesses			Device Businesses	
	Smart Life & Energy	Smart Office	Universal Network	Display Device	Electronic Device
Initiatives in Fiscal 2023	**White Goods** **Create uniquely SHARP products and expand overseas business** ● Gain market share with value-added products ● Create new PCI-related products and cultivate B2B business ● Expand Smart Kitchen in Japan and the U.S. ● Transition ASEAN businesses to high-value-added ● Expand sales promotion activities for models produced in our new Indonesian air conditioner plant **Energy Solutions** **Capture firm demand for renewable energy installations** ● Expand sales of residential PV/storage batteries ● Win large-scale power generating projects in Asia	**Business Solutions** **Strengthen solutions business and improve B2B display devices business profitability** ● Expand smart office business ● Expand MFP business lineup and strengthen product competitiveness ● Expand global sales of digital imaging solutions business **PCs** **Strengthen domestic B2B business and expand solutions business** ● Launch new products for B2B business in Japan ● Expand PC management service ● Conduct focused expansion in North America/Asia/Oceania	**TV System** **Improve profitability through more competitive products and supply chain reforms** ● Expand global sales of XLEDs ● Expand high-value-added lineup ● Strengthen competitiveness of production plants and utilize ODM effectively **Mobile Communications** **Strengthen the brand power of our smartphone business and expand non-smartphone business** ● Increase high-end/middle-range handset mix ● Expand sales of new wireless products (routers, etc.)	**Medium/Small** **Expand medium-size panel business, maximize/optimize factory utilization** ● Expand sales for VR ● Expand sales of panels for automotive applications ● Improve profitability of general-purpose panels (for entry-level PCs, etc.) **Large** **Engage in business operations with top priority on improving profitability** ● Manage production and sales activities reflecting panel prices ● Promote category shift	**Camera Modules** **Develop new businesses/new customers** ● Expand sales of devices for the XR market ● Improve profit structure of existing businesses **Sensors/Semiconductors** **Accelerate developing new business fields** ● Expand sales of vital sensing devices ● Develop applications of CMOS imagers
Sharp Corporation	● Smart Appliances & Solutions Business	● Smart Business Solutions Business	● TV System Business ● Mobile Communications Business		
Subsidiaries	● Sharp Energy Solutions Corporation ● Sharp Cocoro Life Inc.	● Dynabook Inc.		● Sharp Display Technology Corporation ● Sakai Display Products Corporation	● Sharp Sensing Technology Corporation ● Sharp Semiconductor Innovation Corporation ● Sharp Fukuyama Laser Co., LTD.

* For more information on major initiatives by business, please also refer to the Management Meeting presentation materials (June 27, 2023).
https://global.sharp/corporate/ir/event/shareholder_meeting/

R&D, Intellectual Property, and Standardization

(As of October 1, 2023)

Research and Development Efforts and Directions

Mototaka Taneya

Executive Managing Officer
Chief Technical Officer,
Head of R&D
Head of Corporate Research & Development Group,
President of SBPJ

The Corporate Research & Development Group works towards the mission of contributing to achieving a sustainable society by creating and expanding new businesses through the creation of a new ecosystem based on the world's first and best unique technologies that impact society.

The group accelerates new business development in digital healthcare and strengthens efforts to contribute to carbon neutrality through collaboration and cooperation as One SHARP. In doing so, the group aims to implement ESG-focused management. Furthermore, the Corporate Research & Development Group pursues the creation of unique technologies by expanding industry digital transformation solutions through the application of AI technology, which is undergoing ongoing technological innovation.

The group focuses on creating innovative technologies that drive innovation throughout Sharp in addition to building platforms with our unique technologies. Through these efforts, the group aims to further strengthen our technological capabilities.

In addition, our open incubation activities include collaborating with companies that generate technological innovation and supporting start-ups in developing their businesses. Aiming to develop R&D results into new business areas, the Corporate Research & Development Group established a specialized task force within the group to pursue collaboration with internal and external parties and we are actively engaged in cross-industry co-creation centered on industry digital transformation.

The group aims to help make society both people and environmentally friendly by tackling the challenge of new business creation and accelerating innovation achievement through the rapid deployment in society of the fruits of development.

Intellectual Property Strategy

Sharp positions its intellectual property strategy as one of the most important management strategies, pursuing it together with business and R&D strategies. We work to enhance our business advantage and strengthen our management foundation by actively obtaining patents. In 2016, we spun off the Intellectual Property Department and established ScienBiziP Japan Co., Ltd. (SBPJ) with the aim of making the department a profit center. SBPJ has thorough knowledge of Sharp products, technologies, and businesses. Utilizing this knowledge, SBPJ will provide advanced services as the company further enforces improvements in the quality and efficiency of professional services. In doing so, SBPJ will enhance the driving force of intellectual property management and generate strong patents and various economic values with the advanced technologies of Sharp.

In regard to patent acquisition, Sharp clarifies the core technological fields for each of our businesses and works closely with the field to make strategic patent applications. We also actively work to obtain useful patents generated through alliances with other companies or industry-academia collaborations.

Standardization Strategy

In recent years, standardization activities have become increasingly important as a tool for corporate management strategies, such as strategies to create markets and secure competitive advantages. At the same time, there is an urgent need in Japan to strengthen competitiveness by acquiring international standards.

In 2003, we established a research institute to acquire patents for wireless communication technology standards and participated in the standardization of LTE launched at the 3GPP*1 meeting in 2004. Since then, we have continued to participate up through the standardization of Beyond 5G. Our stock of more than 6,000 communication standard essential patents in more than 50 countries around the world serves as an important management resource to the company.

Furthermore, we actively engage in international collaborations with overseas companies and universities, focused on pursuing international standardization of next-generation communication and video coding technologies in particular. We also actively send young employees to international conferences to gain various experiences, aiming to develop highly skilled human resources.

Contributions

Contributed to formulating the 5G-Advanced standard specifications

Contributed to the development of the world's first physical layer standard specification for 5G-Advanced, which aims to expand the functionality and improve the performance of 5G
(5G-Advanced is expected to be put into practical use in the late 2020s)

Awards

2022 Industrial Science and Technology Policy and Environment Bureau Director-General's Award*2, given to industry standardization projects

Recognized for our contributions to the development of the HEVC/VVC standard used in video transmission around the world as well as the extended standard that enables multi-view video and multi-bit high-precision video recording

*1 Abbreviation for 3rd Generation Partnership Project, an organization that develops international standard specifications for mobile communication systems
*2 The Ministry of Economy, Trade and Industry (METI) sponsors awards in recognition of achievements in activities to promote industrial standardization, such as standard formulation and conformity assessment activities

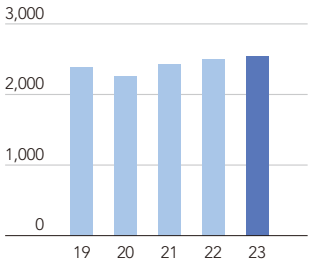
Financial and Non-Financial Highlights

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Years Ended March 31

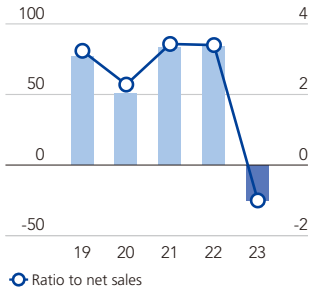
	Yen (millions)				
	2019	2020	2021	2022	**2023**
Net Sales	¥2,394,767	¥2,262,284	¥2,425,910	¥2,495,588	**¥2,548,117**
Domestic sales	719,395	778,976	863,154	817,794	**800,315**
Overseas sales	1,675,372	1,483,308	1,562,755	1,677,794	**1,747,802**
Operating Profit (Loss)	77,388	51,464	83,112	84,716	**(25,719)**
Profit (Loss) before Income Taxes	58,428	32,331	66,442	89,802	**(239,043)**
Profit (Loss) Attributable to Owners of Parent	64,012	13,726	53,263	73,991	**(260,840)**
Net Assets	357,331	270,959	364,139	469,269	**222,362**
Total Assets	1,848,551	1,811,907	1,927,226	1,956,288	**1,772,961**
Capital Investment	56,461	60,583	91,572	51,719	**44,512**
R&D Expenditures	108,545	100,591	86,793	86,290	**78,712**
Per Share Data					
Income (Loss) per share (yen)	100.08	22.47	87.20	121.14	**(407.31)**
Cash dividends per share (yen)	20.00	18.00	30.00	40.00	**—**
Net assets per share (yen)	377.53	419.54	573.59	743.70	**321.05**
Return on Equity (ROE)	17.8%	4.6%	17.6%	18.4%	**(78.7%)**
Number of Outstanding Shares (Common Shares) (thousands of shares)	531,311	531,307	610,801	610,821	**649,273**
Number of Employees	54,156	52,876	50,478	47,941	**46,200**
Ratio of Disabled Employees	2.45%	2.43%	2.46%	2.46%	**2.45%**
Greenhouse Gas Emissions (thousand tons CO_2)	1,077	974	951	1,365	**1,125**

Notes 1: The amount of leased assets is included in capital investment.
2: Income (loss) per share is calculated by dividing profit (loss) attributable to owners of parent by the weighted average number of shares outstanding during the relevant period. For the fiscal years ended March 31, 2019 through 2021, the number of Class C shares, after considering the conversion rate to common shares, is included in the number of shares outstanding for the purposes of calculating the weighted average number of shares during the relevant period, since the dividend priority of the Class C shares is equal to that of the common shares.
3: Number of outstanding shares (common shares) is shown by deducting the treasury shares.
4: Of the 200,000 Class A shares issued, Sharp acquired and canceled 92,000 shares on January 30, 2019 and 108,000 shares on June 21, 2019. The effects of the said acquisition and cancellation of treasury stock are taken into consideration in the income per share for the fiscal years ended March 31, 2019 and 2020.
5: Sharp acquired and canceled all the 795,363 Class C shares outstanding in exchange for 79,536,300 common shares on February 26, 2021.
6: Sharp has adopted the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, March 31, 2020) and other standards from the beginning of the fiscal year ended March 31, 2022. The figures for the fiscal years ended March 31, 2022 and thereafter represent those after the application of the said accounting standard and other standards.
7: Ratio of Disabled Employees includes data for Sharp, special subsidiaries, and group companies as of June 1 for each fiscal year.
8: Sharp made Sakai Display Products Corporation a wholly-owned subsidiary in June 2022. To ensure comparability, greenhouse gas emissions for the fiscal year ended March 31, 2022, include emissions from the company.

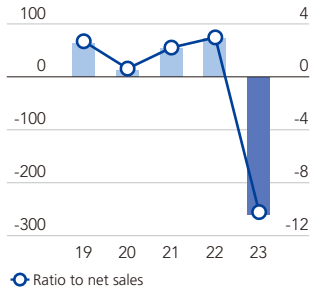
Net Sales



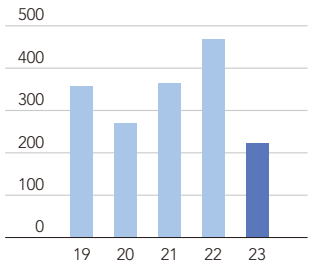
Operating Profit (Loss)



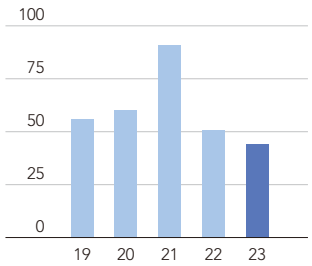
Profit (Loss) Attributable to Owners of Parent



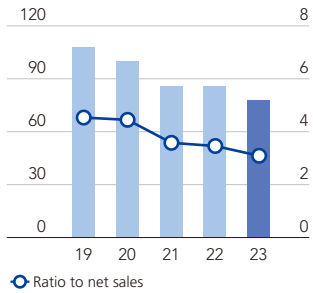
Net Assets



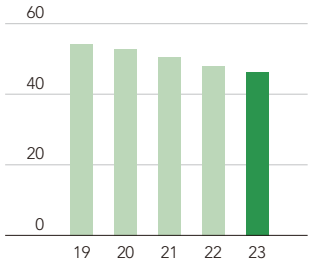
Capital Investment



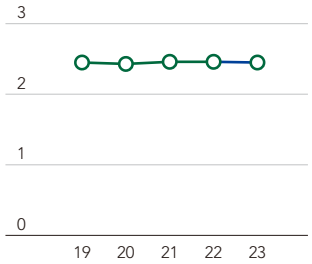
R&D Expenditures



Number of Employees

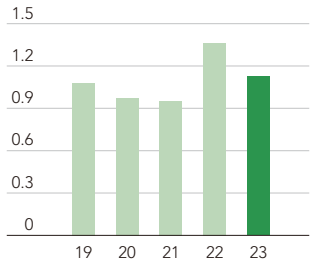


Ratio of Disabled Employees



Please refer to P.15, Social Initiatives.

Greenhouse Gas Emissions



Please refer to P.12, Environmental Initiatives.

Fiscal 2022 Review

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Year Ended March 31

The global economy continued to recover moderately from the COVID-19 pandemic during the consolidated fiscal year. However, inflation rose due to soaring energy and raw materials prices linked to the situation in Ukraine and other factors. To control inflation, monetary tightening was initiated in various countries, and the spread of financial instability, including the collapse of banks in the United States, has led to an uncertain outlook.

In addition, the business environment for Sharp remained extremely challenging due to the weak yen and deteriorating conditions in the display market.

Amid these circumstances, Sharp pursued three initiatives: (1) Strengthen our overseas businesses; (2) Expand into new areas (new products/services, new markets, and new businesses); and (3) Strengthen ability to respond to risks.

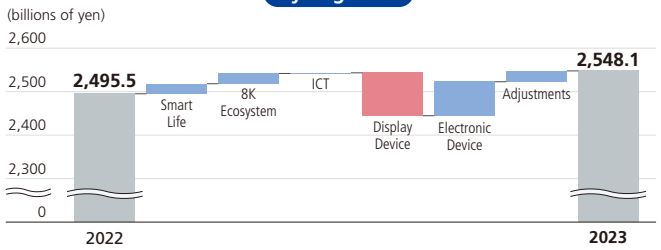
Consolidated net sales for fiscal 2022 amounted to 2,548.1 billion yen, up 2.1% year on year, as sales in Smart Life, 8K Ecosystem, ICT, and Electronic Device grew, despite a decline in Display Device sales. Operating loss amounted to 25.7 billion yen, compared with operating profit of 84.7 billion yen in the previous fiscal year. This operating loss was due to a significant decrease in four segments under other, reflecting the impact of the weakening yen and deteriorating display market conditions, despite an increase in Electronic Device profit. Ordinary loss was 30.4 billion yen (ordinary profit of 114.9 billion yen in the previous fiscal year) due to the posting of an operating loss and non-operating losses of 4.7 billion yen, including share of loss of entities accounted for using equity method among other factors. Loss attributable to owners of parent amounted to 260.8 billion yen, compared with profit attributable to owners of parent of 73.9 billion yen in the previous fiscal year. This loss was mostly due to impairment loss of 220.5 billion yen, mainly in Display Device.

Sharp decided there would be no dividend payment for fiscal 2022, as the company posted a net loss for this period.

- The outlook remained uncertain despite a moderate recovery in the global economy
- The business environment was extremely challenging due to the weak yen and deteriorating conditions in the display market
- Sharp recorded an operating loss and ordinary loss for the first time since fiscal 2015 despite increased net sales from the previous year
- Sharp recorded significant net loss, mainly due to an impairment loss related to Display Device
- No dividend payment for fiscal 2022 due to net loss

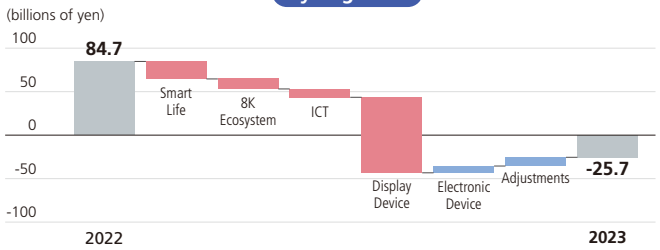
Analysis of Changes in Net Sales

By Segment

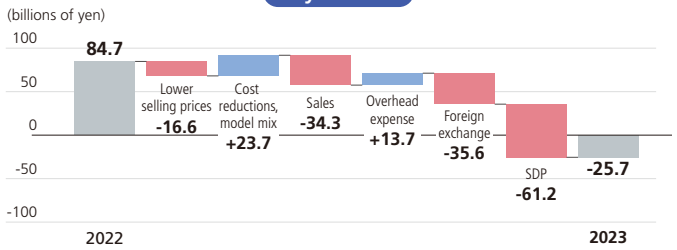


Analysis of Changes in Operating Profit

By Segment



By Factor

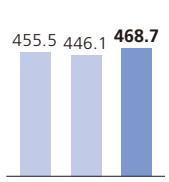


Sales, Segment Income(Loss) by Segment

Brand Businesses

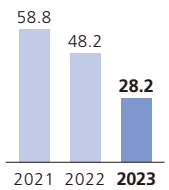
Smart Life

Sales (billions of yen)



In the white goods business, sales increased due to sales of drum and other washing machines, as well as growing sales of cooking appliances centered in Europe and the U.S. Sales also increased in the energy solutions business due to growing overseas EPC and domestic residential applications.

Segment Income (billions of yen)

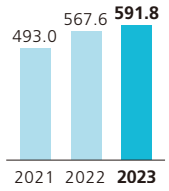


Profits decreased due to soaring raw material prices and lower revenues in the domestic white goods business, stemming from the weak yen.

Refrigerators, superheated steam ovens, microwave ovens, small cooking appliances, air conditioners, washing machines, vacuum cleaners, air purifiers, electric fans, dehumidifiers, humidifiers, electric heaters, Plasmacluster Ion generators, beauty appliances, LED lightings, electronic dictionaries, calculators, telephones, network control units, solar cells, storage batteries

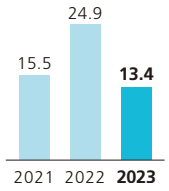
8K Ecosystem

Sales (billions of yen)



In the business solutions business, sales increased due to growing sales of MFPs and smart offices. Sales declined in the TV business due to sluggish market conditions.

Segment Income (billions of yen)

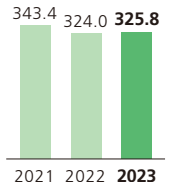


While the business solutions business reported an increase in profit, the TV business reported a lower profit due to the impact of decline in sales and the recordings of one-time expenses.

Televisions, Blu-ray disc recorders, audio equipment, digital MFPs (multi-function printers), information displays, commercial projectors, POS system equipment, FA equipment, options and consumables, office-related solutions services, software, face masks

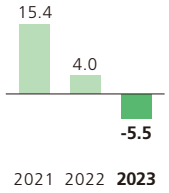
ICT

Sales (billions of yen)



Sales increased in the mobile communication business due to steady sales of high-end smartphones. The PC business saw a decline in sales due to sluggish demand worldwide.

Segment Income(Loss) (billions of yen)



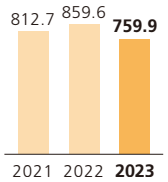
Sharp reported a loss for the full year, largely due to the impact of the weak yen. However, Sharp achieved profitability in the second half of the fiscal year due to efforts such as structural reforms in Europe and measures to improve the model mix.

Mobile phones, PCs, tablet devices, routers

Device Businesses

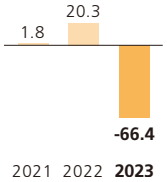
Display Device

Sales (billions of yen)



Although panels for automotives grew significantly, panels for smartphones and PCs declined due to sluggish market conditions.

Segment Income(Loss) (billions of yen)

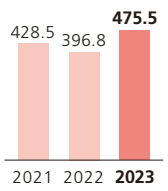


The reported loss was due in part to lower sales and the impacts from the large display business.

Display modules, automotive cameras

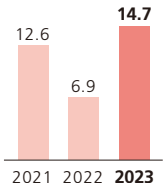
Electronic Device

Sales (billions of yen)



Sales increased due to steady sales of devices for 2022 customer models.

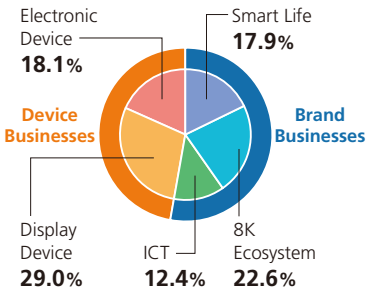
Segment Income (billions of yen)



Profit increased due to higher sales.

Camera modules, sensor modules, optical sensors, optical devices, CMOS imagers, wafer foundries, laser diodes

Sales by Segment



- Sales figures include internal sales between segments. The percentage of sales in pie charts has been calculated accordingly.
- Segment income figures are the amounts before adjustments for intersegment trading.
- Beginning with the consolidated fiscal year ended March 31, 2022, Sharp classified three segments of Smart Life, 8K Ecosystem, and ICT into five segments, consisting of Smart Life, 8K Ecosystem, ICT, Display Device, and Electronic Device. Figures for the fiscal year ended March 31, 2021, have been adjusted to reflect the new classification.
- Beginning with the consolidated fiscal year ended March 31, 2024, Sharp has classified five segments, consisting of Smart Life, 8K Ecosystem, ICT, Display Device, and Electronic Device into five segments, consisting of Smart Life & Energy, Smart Office, Universal Network, Display Device, and Electronic Device. (Please refer to P.2 to P.4.)

Sustainability

See the following for more information on sustainability.
https://global.sharp/corporate/eco/management

Basic Approach to Sustainability

As stated in our business philosophy, the founding spirit of Sharp aims to contribute to the culture, benefits, and welfare of people throughout the world and expects mutual prosperity with all who cooperate with Sharp. Based on this spirit, our basic approach to Sustainability is to answer the expectations of society and our stakeholders, aiming for the sustainable development of both Sharp and society.

To embody this business philosophy and business creed*1, we established the Sharp Group Charter of Corporate Behavior as a code of conduct for group companies and the Sharp Code of Conduct*2 for all directors, executives, and employees. We work to ensure each officer and employee is thoroughly informed of these policies.

*1 See below for more about our business philosophy and business creed.
https://global.sharp/corporate/info/philosophy/
*2 See below for more about the Sharp Group Charter of Corporate Behavior and Sharp Code of Conduct.
https://global.sharp/corporate/info/charter/

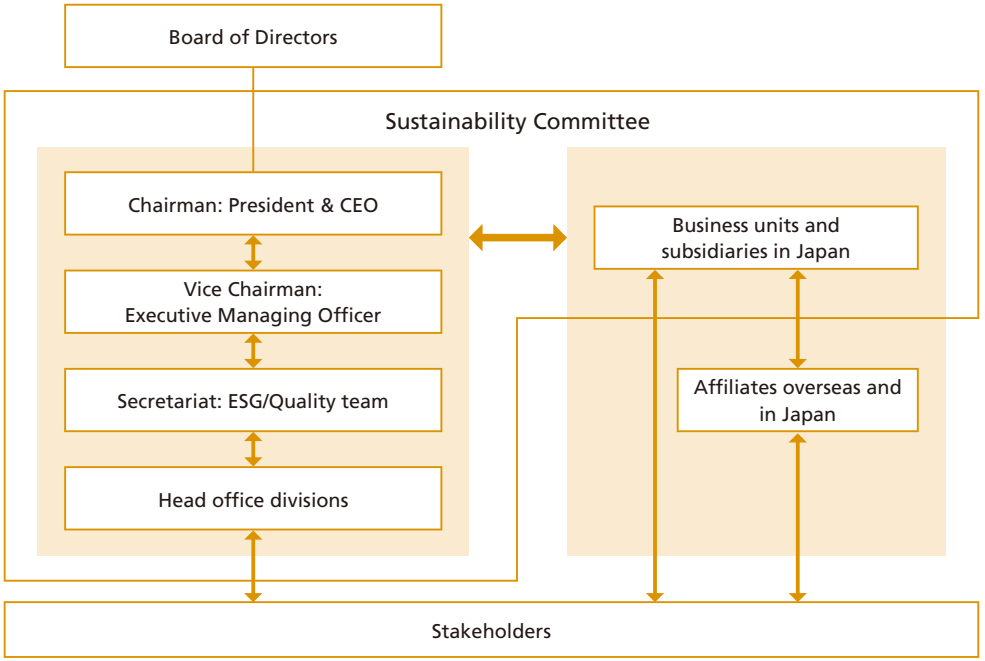
Sustainability Strategy and Promotion Structure

Sharp takes initiative to achieve the Sustainable Development Goals (SDGs). We set our medium- to long-term vision as contributing to the achievement of these goals based on our basic approach to sustainability. The SDGs were adopted by the United Nations in September 2015 and set high expectations for companies.

In fiscal 2018, we accelerated our efforts to realize this medium- to long-term vision by aiming to contribute to the achievement of the SDGs through both "solving social issues through business and technological innovation" and "reducing the burden on society and the environment through sustainable business activities" as our basic strategy for sustainable management.

To reduce these strategies to actionable measures managed via the PDCA cycle, Sharp launched the Sustainability Committee. The committee is chaired by the Representative President and CEO, and consists of senior executives, headquarters functional divisions (e.g., environment/HR/procurement), business units, and subsidiaries. This committee deliberates and pursues various measures, implements policies and vision, and conducts activities that include communicating the latest trends related to social issues. In addition, the committee reports important policies and decisions to the Board of directors.

Organization for Sustainability Management (As of August, 2023)



Materialities

There are successive announcements of international medium- to long-term goals aimed at resolving global social issues, such as the SDGs and the Paris Agreement*. Amid growing concern about human rights issues, such as forced labor in global supply chains, expectations for corporate sustainability initiatives are further increasing.

Against this background, we identify and make efforts in materialities to promote sustainable management from both the perspectives of contributing to the resolution of global social issues and achieving medium- to long-term growth for the Sharp Group.

In identifying materiality, we take into account international guidelines and principles, such as the UN Global Compact, SDGs, and RBA vision and mission, in addition to our management policies and business strategies. We also consider opinions and expectations from various stakeholders, the impact of our business activities on stakeholders, and evaluation results from ESG rating and rating agencies.

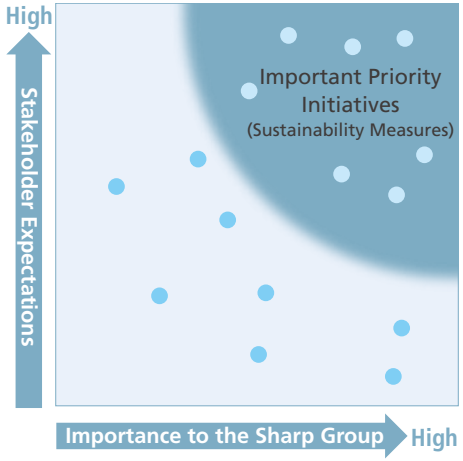
Process for Identifying Material Issues

Management Policy and Business Strategy
- Business Philosophy and Business Creed
- Be Original. • ESG-focused management policies
- Business vision • Medium-term management plan, etc.

International Guidelines and Principles
- United Nations Global Compact • SDGs • ISO26000
- United Nations Universal Declaration of Human Rights
- United Nations Guidance Principles on Business and Human Rights
- RBA Vision & Mission
- Other industry codes of conduct, etc.

Stakeholder Opinions and Expectations
- Feedback and opinions from stakeholders through dialogue
- Assessing the impact of business activities on stakeholders
- Survey results from various ESG institutions, etc.

Identify Material Issues



Identified materialities are mapped based on the level of stakeholder expectations and level of importance to the Sharp Group. Topics that are prioritized at the company-wide level are then determined to be sustainability measures.

Each business unit and subsidiary sets targets, goals, KPIs, and action plans for each measure. We review the performance and status of these initiatives at the Sustainability Committee, which meets semiannually.

FY2023 Company-Wide Sustainability Measures

Sustainability measures	Related SDGs
Pursue energy-saving products	7, 12, 13
Reduce the use of virgin plastic in products and packaging materials	8, 12, 14
Create sustainable products	7, 12, 13
Reduce greenhouse gas emissions from business activities	7, 9, 13
Reduce waste emissions from business activities	6, 9, 12
Reduce ESG risks at company-owned factories in Japan and overseas	1, 3, 5, 6, 7
Reduce ESG risks in the supply chain	8, 10, 12, 13, 16

* Multilateral international consensus agreement on climate change control adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in Paris in 2015. States that efforts will be pursued to keep the increase in global average temperature well below 2°C above pre-industrial revolution levels as well as to limit the increase to 1.5°C.

Environmental Initiatives

See the following for more information on Sharp's environmental activities.
https://global.sharp/corporate/eco/environment/

The SHARP Eco Vision 2050, Our Long-Term Environmental Vision

Global environmental issues such as climate change, resource depletion, and the problems presented by plastic waste are becoming more serious and are recognized as important issues among the international community. Under these circumstances, global movements aimed at resolving social issues are accelerating, such as those designed to respond to Sustainable Development Goals (SDGs) and carbon neutrality[*1], as well as initiatives to realize a circular economy[*2].

In 2019, Sharp established its long-term environmental vision *SHARP Eco Vision 2050* based on its principal environmental philosophy of "Creating an Environmentally Conscious Company with Sincerity and Creativity," which was established in 1992. Our aim is to realize a sustainable global environment by setting long-term goals for 2050 in the three areas of climate change, resource recycling, and safety and security.

Furthermore, in order to realize our long-term environmental vision, we are formulating "medium-term environmental goals" that set specific initiatives and quantitative goals for each area[*3]. With respect to climate change, we set a target of reducing CO_2 emissions by 40% by 2030 and 60% by 2035. Our aim is to achieve net zero CO_2 emissions arising from our own business activities by 2050[*4].

Sharp is engaged in initiatives to solve social issues and sustainably raise corporate value. We are doing so by working more closely with our stakeholders through corporate and environmental conservation activities.

*1 A state in which the total amount of greenhouse gas emissions minus the absorption volume is effectively zero.
*2 An economic system in which discarded products and raw materials are considered as new resources and in which resources are circulated without generating waste products.
*3 See below for more about our medium-term environment goals.
https://global.sharp/corporate/eco/environment/climate_change/#anc01
*4 Compared with fiscal 2021. Includes post-2021 emissions of Sakai Display Products Corporation (SDP), which became a wholly owned subsidiary in June 2022.

Long-Term Environmental Targets

Toward achieving the *SHARP Eco Vision 2050*, we have defined long term goals in the three following areas to generate clean energy in excess of energy consumed and minimize the environmental impact of corporate activities on the global environment.

Climate Change

Throughout our history, Sharp has endeavored to reduce the energy we use as an organization, while making more energy-efficiency products to help reduce the amount of energy consumed in the home and by society.

As our founder, Tokuji Hayakawa, said, "Everything we produce uses electricity. As we become a bigger company, we will be responsible for using more electricity, so I propose that we also begin making electricity." Following this course, Sharp began development of solar cell, striving to popularize photovoltaic power generation for more than 50 years.

As a company that makes products that use electricity, we must take responsibility for the environmental impact of this electricity usage.

Sharp supports the global goal of achieving carbon neutrality, and we have set ourselves the challenge of meeting the following two goals by 2050 in our own activities and throughout the supply chain as a whole, so that we can achieve a decarbonized society.

Goals
- Achieve net zero CO_2 emissions due to our own business activities
- Generate clean energy in excess of the energy consumed throughout our supply chain

Resource Recycling

Sharp has created new products that offer a variety of value to the world. At the same time, we have used many of the world's resources.

Our desire is to continue to offer a variety of value to our stakeholders amid the constraints of limited resources.

Sharp intends to reach new levels of effective resource use, maximizing value from minimal resources and constructing a circular economy. We have defined two goals to achieve by the year 2050 in efforts to create a recycling-oriented society.

Goals
- Eliminate the use of new mined resources* in products
- Eliminate final disposal of waste products generated through our business activities

*Excludes those items not suitable for recycling from an environmental standpoint

Safety and Security

Sharp factories use a variety of chemical substances in the product manufacturing process. Our products also contain a variety of chemical substances. Chemical substances include substances that have a negative impact on the human body, the environment, and ecosystems. Accordingly, these chemicals must be managed in a careful and detailed manner.

Sharp corporate activities must not do harm to human health, the global environment, or ecosystems.

Sharp follows current international standards, as well as our own standards oriented toward the future, for the strict management of these relevant chemical substances. We are striving to eliminate any chemicals that harm human health, the global environment, or ecosystems.

Goals
- Conduct proper management of chemical substances to protect human health, the global environment, and ecosystems

Information Disclosure based on TCFD

Addressing TCFD Recommendations

The Task Force on Climate-Related Financial Disclosures (TFCD) formed by the Financial Stability Board (international body that works toward financial systems stability) put forth recommendations that companies disclose information on the risks and opportunities presented by climate change in 2017. Sharp declared its support for the recommendations of the TCFD, and intends to expand disclosure of information regarding climate change in accordance with the TCFD framework.

1. Governance

The Representative President and CEO, who chairs the Sustainability Committee[*1], has the responsibility for monitoring and supervising climate-related issues. The Sustainability Committee consists of the committee chair, senior management, headquarters functional divisions, business units, and subsidiaries. The Committee is responsible for the thorough implementation of policies and vision on ESG, including those on climate change. They also deliberate and promote measures and share the latest trends in social issues.

Through monitoring and review by management at committee meetings, Sharp continuously strengthens climate change action to play a part in making society sustainable.

2. Strategy

Sharp considers climate change as one of our medium- to long-term risks and opportunities. We explore strategies and organizational resilience in light of related risks and opportunities. We conducted a scenario analysis referring to climate change scenarios (1.5°C scenario[*2] and 4°C scenario[*3]) by the International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC) to consider long-term impacts up to the year 2050.

Details of each risk and opportunity, as well as the measures taken to address them, are summarized on the following page, P.13.

3. Risk Management

Based on the Business Risk Management Guidelines which defines the basic concept of business risk management, Sharp manages and assesses risks, including climate-related risks, in an integrated manner. We identify high-probability climate risks by analyzing projected future climate scenarios. We report the details of the analysis to senior management and the Internal Control Planning Division (secretariat of the Risk Management Office) as necessary. Measures for improvement are discussed among the related departments.

4. Metrics and Target

Sharp set a medium-term environmental target of reducing CO_2 emissions by 60%[*4] by 2035 to achieve its long-term environmental vision *SHARP Eco Vision 2050*, which includes "net zero CO_2 emissions arising from our own business activities. This target is in compliance with the SBT 1.5°C target and aims to reduce CO_2 emissions by 4.2% or more per year.

Progress towards Reducing of Greenhouse Gas Emissions (Fiscal 2022)

Base year (Fiscal 2021 results[*4])	Fiscal 2035 targets (60% reduction over fiscal 2021)	Fiscal 2022 results	Vs. base year
1,365 thousand tons CO_2	546 thousand tons CO_2	1,125 thousand tons CO_2	17.6% reduction

*1 Please refer to P.9.
*2 Referenced the IEA Net Zero Emission 2050 Scenario and the IPCC Sixth Assessment Report (AR6) SSP1-1.9 scenario, etc.
*3 Referenced the IPCC Fifth Assessment Report (AR5) RCP8.5 scenario
*4 Compared to fiscal 2021. To ensure comparability, Sharp retroactively included emissions from Sakai Display Products Corporation to the fiscal 2021 base year since the company became a subsidiary in June 2022.

Disclosures Based on the TCFD Recommendations

Business Risks and Opportunities; Sharp's Response

Scenario	Factors	Changes	Impact on Sharp	Risks and opportunities	Degree of influence	Time frame of impact*	Sharp's response
1.5°C	Introduction of carbon pricing	Increase in procurement costs of raw materials	Pass on of purchase prices resulting from an introduction of a carbon tax on our purchased products	Risks	Large	Short term	● Explore raw materials with low greenhouse gas (GHG) emissions ● Develop suppliers that strive to reduce their environmental impact ● Optimize purchase volume (further control inventories)
		Increase in cost of direct operations	Increase in expenditures resulting from an introduction of a carbon tax on our Scope 1 and 2 emissions	Risks	Large	Short term	● Reduce GHG emissions by saving energy ● Pursue investment in low-carbon emission facilities through the introduction of internal carbon pricing
	Pressure to decarbonize and pursue environmental friendliness in the supply chain	Reduced competitiveness through inability to meet users' environmentally-friendly needs	Decrease in sales due to failure to meet users' expectations regarding environmental friendliness	Risks	Medium	Short term	● Understand market needs through continuous communication with users ● Continue research and development on saving energy
		Increase in cost of switching to environmentally-friendly materials	Increase in costs accompanying the switch to low-carbon electric furnace materials, recycled plastics, biomass plastics, and other materials	Risks	Medium	Medium Term	● Find sources of low-cost, environmentally friendly materials ● Maintain consumer price elasticity through external disclosure of company use of environmentally friendly materials
		Increase in energy procurement costs due to the switch to renewable energy	Increase in costs due to in-house power generation, Power Purchase Agreements (PPAs), the switch to renewable energy, and purchase of environmental value certificates	Risks	Small	Medium Term	● Reduce GHG emissions by saving energy ● Explore partners to pursue low-cost PPAs and renewable energy
	Market expansion for renewable energy	Growing demand for solar power-related products and systems from renewable energy power generation providers and users	Increased potential for revenue growth through expanding Sharp products and systems	Opportunities	Medium	Short term	● Continue to develop solar power-related products and systems in response to market demand
		Growing demand for net zero energy houses (ZEHs)	Increased potential for revenue growth through strengthening the provision of fixed-price solar power generation services and home energy management systems (HEMS) for residential use	Opportunities	Medium	Short term	● Provide energy solutions (systems and services) that meet market demand
	Expansion of our environmental protection business	Expansion of circular economy business models	Increase in customer support through the establishment of a waste-free circular economy business model amid growing social efforts to decarbonize	Opportunities	Small	Medium Term	● Encourage recycling of waste plastics through the use of self-circulating material recycling technologies and other methods ● Proactively create new business opportunities through ongoing information collection of solar cell recycling
4°C	Intensifying weather disasters	Supply chain disruptions	Loss of sales opportunities from damaged suppliers and sites, as well as impacts to our supply chain due to intensifying weather disasters	Risks	Medium	Long Term	● Make multiple purchases from multiple suppliers ● Survey the status of business continuity plans (BCPs) at major suppliers and strengthen their countermeasures ● Further improve BCPs at our own sites

* We expect manifestations to begin in the following time frames:
Short term: three years or less; medium term: by around 2030; long term: by around 2050

Social Initiatives

See the following for more information on CSR procurement.
https://global.sharp/corporate/eco/social/procurement/
See the following for more information on quality.
https://global.sharp/corporate/eco/social/customer_satisfaction/

Promoting CSR across the Entire Supply Chain

The Sharp Group Charter of Corporate Behavior stipulates that Sharp does not sanction any form of forced labor, including child labor, and supports its effective abolition. Based on this policy, we have formulated and published the SHARP Supply-Chain CSR Deployment Guidebook in accordance with the RBA Code of Conduct, and, in our basic agreements for ongoing transactions, have established mandatory compliance with Guidebook-based CSR initiatives for our suppliers.

In order to identify, assess, and appropriately address CSR risks such as forced labor in the supply chain, we conduct CSR/green procurement surveys for each of our suppliers' plants on a regular basis in accordance with the RBA Self-Assessment Questionnaire. We also provide feedback on assessment results and ask suppliers with plants that scored low in any area to submit improvement plans. In this way, we work to enhance CSR initiatives. In fiscal 2022, we conducted CSR/green procurement surveys at 409 bases of 93 companies in Japan*.

We will continue to strengthen our CSR efforts throughout the supply chain, aiming to build a globally responsible supply chain.

* Information pertaining to the evaluation distribution status of CSR/green procurement surveys can be found on the following website.
https://global.sharp/corporate/eco/social/procurement/#anc02

Human Rights Due Diligence Initiatives for the Supply Chain

In recent years, expectations and demands related to supply chain due diligence initiatives have been increasing in light of the emergence of human rights and environmental risks in the global supply chain, as well as the strengthening of related laws, regulations, and import/export restrictions in various countries.

Sharp joined the RBA officially in December 2021. We are now strengthening related initiatives while utilizing RBA tools and mechanisms. One such initiative is our use of the RBA e-learning Academy. The academy has been providing employees with a deeper understanding of international CSR standards since February 2022.

We also assess the risk of human rights violations through the aforementioned CSR/green procurement surveys. As a result of these efforts, we have not identified any serious problems such as forced labor or child labor in our supply chain. However, in the unlikely event that a problem such as a human rights violation is identified, we will immediately take the necessary corrective and relief measures in consultation with our suppliers based on our agreement. If no improvement is expected, we will take strict measures including suspending transactions.

Sharp is also working to strengthen our grievance-handling mechanism. We established the Crystal Hotline, our whistleblowing contact desk, on our external website to receive reports from suppliers and other stakeholders. In October 2022, we joined the Japan Center for Engagement and Remedy on Business and Human Rights (JaCER) to establish a mechanism that enables a wide range of stakeholders in the global supply chain to file human rights grievances in both Japanese and English.

Initiatives for Responsible Mineral Procurement

In recent years, in addition to legal frameworks such as the U.S.'s Dodd-Frank Wall Street Reform and Consumer Protection Act and the EU's Conflict Minerals Convention, the scope of responsible mineral procurement has been expanding in terms of minerals, regions, and risks. Society demands that companies practice responsible mineral procurement from CSR perspectives against the backdrop of child labor and environmental destruction at mineral mining sites. Sharp's basic policy is to take appropriate measures to ensure that we are neither complicit in human rights abuses or environmental destruction nor interfering with sound and legitimate local business activities in our supply chain for procuring minerals mined in conflict-affected and high-risk areas.

Under this basic policy, we established an investigation system at each of our major business units and manufacturing subsidiaries. Through our membership in industry associations such as the Responsible Minerals Initiative (RMI) and Japan Electronics and Information Technology Industries Association (JEITA), we monitor the latest global trends and pursue relevant measures based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Furthermore, the Sustainability Committee*, chaired by the Representative President and CEO, designates responsible mineral procurement as a key theme for initiatives and monitors the progress of related measures.

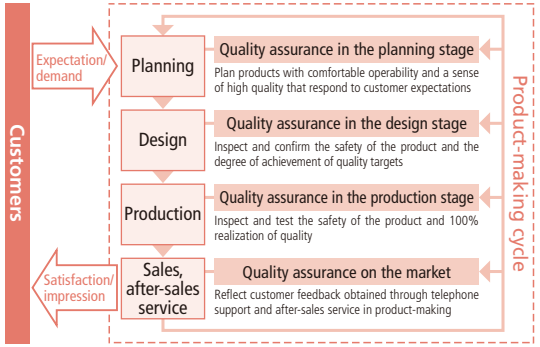
* Please refer to P.9.

Ensuring Quality and Safety

To gain customer trust and improve satisfaction, Sharp responds to customer needs and demands, offering high-quality products and services that are safe, reliable, and environmentally conscious.

Quality Assurance System

Sharp specifies the quality levels we promise to customers, thereby ensuring all employees in every department involved in product planning, design, production, sales, and after-sales service continue to strive for improved quality.

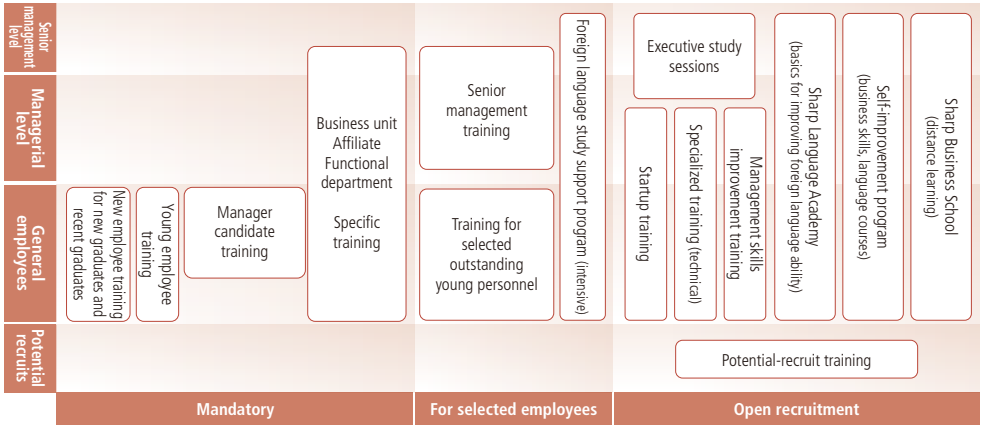


See the following for more on human resources development, diversity management, work-life balance, and other related information and indicators.
https://global.sharp/corporate/eco/social/

Human Resource Development

Sharp conducts a variety of human resources development programs aimed to improve quality and expand the breadth of the abilities of each employee. Through these programs, we nurture young employees, develop the next generation of leaders, raise the skill level of each employee, and implement other measures for improvement.

We provide various training programs for employees in accordance with their stage of growth, such as training by job level, to equip them with the knowledge, skills, and mindset necessary for each milestone. Other training includes management training to develop management personnel who will lead the future company. In fiscal 2022, Sharp began offering courses for young talented managers to develop our next-generation leaders. These courses hone in on the qualities necessary to become management executives. We also held new business proposal meetings to foster the mindset of creating new businesses.



We strive to cultivate an environment in which employees can pursue independent learning whenever and wherever they are, in order to build up the basic business knowledge and expertise that they need as professionals. For example, we offer various types of study content, such as management skills training for employees to acquire basic business knowledge and skills that all employees should know. Contents also include technology seminars to teach the basics of technology, mainly aimed at young engineers.

In addition to group training, Sharp provides an e-learning environment for management skills improvement training and study sessions to actively support employee self-development and growth.

Through these initiatives, Sharp aims to create a climate of mutual teaching and learning through sustained personnel, education, and training systems, transforming into a strong company.

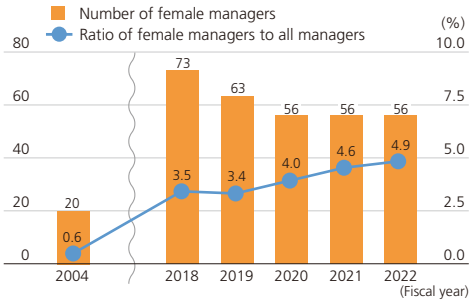
Diversity Management

Sharp's approach to diversity is clearly stated in its Business Philosophy: "It is the intention of our corporation to grow hand-in-hand with our employees, encouraging and aiding them to reach their full potential and improve their standard of living." Through mutual respect of individual employee personalities, we aim to create new value, leading to the proposal of services and development of new lifestyle products that we, alongside our customers, will use to build the stepping stones toward our future.

Diversity management is a human resources strategy for utilizing a diverse range of employees; it is also a business strategy.

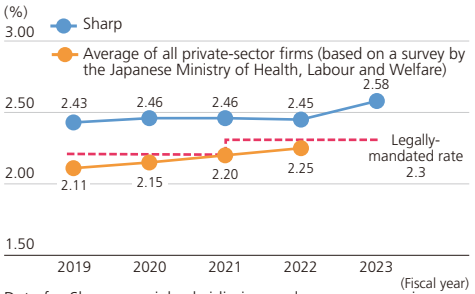
The Sharp Code of Conduct states, "In any corporate activities, including employment practices such as hiring, payment, promotion, opportunities for training and the like, we do not take any action that constitutes discrimination based on nationality, race, ethnic group, color, sex, physical health, pregnancy, sexual orientation, age, marital status, religion, creed, social status, birth, property, bodily feature, physical or mental disability, political opinion, and the like," and that, "We will actively take part in efforts to enhance the work environment where employees with diverse characteristics can fully demonstrate their abilities." This is what Sharp is actively working towards, giving individual consideration based on need.

Number of Female Managers



Data for Sharp Corporation
as of March 31 in each fiscal year

Employment Rate of the Disabled in Japan



Data for Sharp, special subsidiaries, and group companies
as of June 1 for each fiscal year

Work-Life Balance Initiatives

Creating a workplace that fosters job satisfaction is a foundation for promoting diversity. As such, we expand and encourage the use of systems that help employees balance work with childcare, nursing care, and medical treatment to provide them with a good work-life balance. We offer childcare support and encourage employees' continuous participation in childcare. Many Sharp employees, both male and female, use leave, vacation, and other systems for childcare.

Sharp also implements No Overtime Days and encourages employees to plan for and use annual paid leave to establish an efficient and balanced work style for all employees.

Corporate Governance

Basic Concepts

Sharp's business philosophy contains this statement: "Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders... indeed, the entire Sharp family." Under this philosophy, Sharp's basic concept concerning corporate governance is to maximize corporate value through swift and accurate management that preserves transparency, objectivity and soundness.

Based on this stance, Sharp appoints outside directors who have deep insight and a wealth of experience in the fields of social and economic trends, management, and so forth. In the institutional design of the company, we have chosen to become a company with an audit & supervisory committee. This format increases the agility of our decision-making, while strengthening oversight of the execution of duties.

With regard to the execution of business, Sharp separates the supervisory and decision-making functions from the business execution functions through the introduction of the Executive Officers System. This system enables the prompt, efficient, and consistent conduct of business. Sharp has also organized its business structure by decentralizing management to clarify the profit responsibilities of each business unit. In this way we have been strengthening our individual businesses and operations, exercising control through the CEO's Office and the Business Strategy Planning Office, organizations within our headquarters.

Status of Corporate Governance System

Sharp's corporate governance system comprises the Board of Directors, which supervises directors' execution of duties, and the Audit & Supervisory Committee, which audits the directors' execution of duties, together with Executive Officers System which separates the supervisory and decisionmaking functions from the business execution functions.

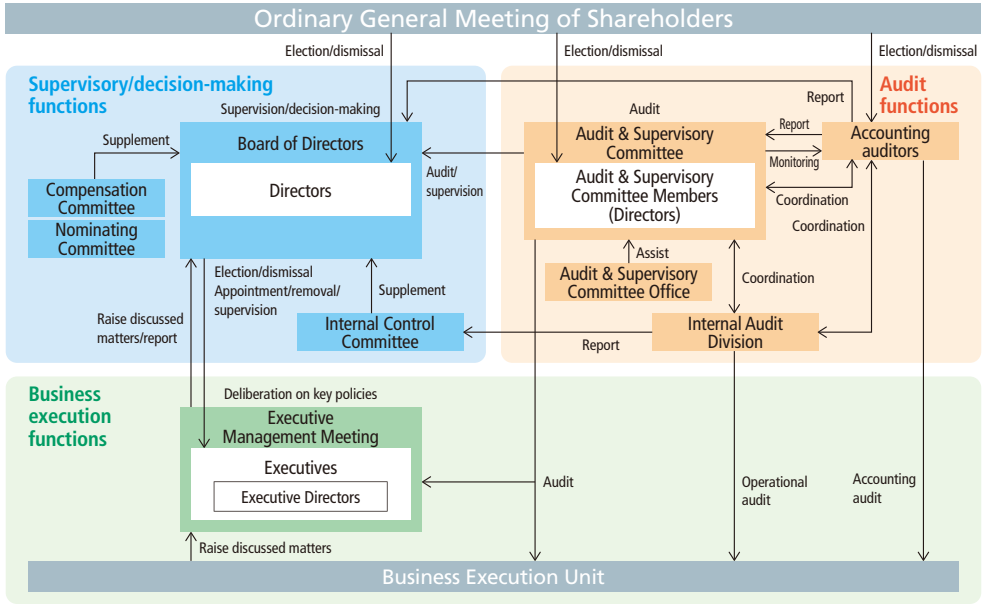
Meetings of the Board of Directors of Sharp Corporation are as a rule held on a monthly basis to make decisions on matters stipulated by law and management-related matters of importance, as well as to supervise the state of business execution. The Company also has an Internal Control Committee, the Compensation Committee, and the Nominating Committee. These committees serve as advisory bodies to the Board of Directors. In addition, important transactions between the parent company group and Sharp Group are reviewed and approved by the Board of Directors, the majority of whom are independent outside directors, to determine the necessity, rationality, and appropriateness of the transaction in question before being submitted to the Executive Management Meeting for decision.

In addition to the Board of Directors, the Company has set up an Executive Management Committee whose members are executive officers (CEO, executive vice president, CFO). The Executive Management Meeting deliberates in an appropriate and timely manner on matters of importance related to corporate management and business operations. This committee facilitates prompt executive decision-making.

The Audit & Supervisory Committee is comprised of three directors, all of whom are outside directors having high levels of professional knowledge. Two of the Audit & Supervisory Committee members are independent directors and one member is a full-time Audit & Supervisory Committee member. The Audit & Supervisory Committee members hold regular meetings with executive directors, accounting auditors, the head of the Internal Audit Division and others to exchange opinions and endeavor to ensure that business is conducted legally, appropriately, and efficiently.

Status of Corporate Governance System

(As of June 28, 2023)



Organization Membership

(◎ : Committee chair) (As of October 1, 2023)

Title	Name	Bord of Directors	Audit & Supervisory Committee	Executive Management Meeting	Nominating Committee	Compensation Committee	Internal Control Committee
President & CEO, Member of the Board	Po-Hsuan Wu	◎		◎	○	○	◎
Executive Vice President, Member of the Board	Masahiro Okitsu	○		○			○
Member of the Board(Outside Director)	Limin Hu	○					
Member of the Board(Outside Director)	Steve Shyh Chen	○					
Member of the Board(Outside Director)*	Hsu-Tung Lu	○	◎				○
Member of the Board(Outside Director)*	Yasuo Himeiwa	○	○		○	○	○
Member of the Board(Outside Director)*	Yutaka Nakagawa	○	○		◎	◎	○
Executive Vice President & CFO	Hsin-Shu Chen			○			○
Executive Managing Officer	Taimi Oketani			○			
Executive Managing Officer	Yoshio Kosaka			○			○
Executive Managing Officer	Chien-Erh Wang			○			
Executive Managing Officer	Mototaka Taneya			○			
Executive Officer	Yasufumi Sugahara			○			
Executive Officer	Tetsuji Kawamura			○			
Executive Officer	Yoshiro Nakano			○			

* Member of Audit & Supervisory Committee

Appointment of Outside Directors

(As of June 28, 2023)

Name	Member of Audit & Supervisory Committee	Independent Director	Reason for selection	Attendance at Board/ Committee in fiscal 2022 (Meetings attended/ No. of meetings held)
Hsu-Tung Lu	○		Mr. Lu has worked for many years in accounting operations. Given his wealth of experience and knowledge based on his professional experience, we have determined that he is well suited to serve as an outside director at Sharp.	Board of Directors (13/13) Audit & Supervisory Committee (18/18)
Yasuo Himeiwa	○	○	Mr. Himeiwa has worked for many years in the accounting business. Given his wealth of professional experience and knowledge, we have determined that he is well suited to serve as an outside director at Sharp. Further, we have designated Mr. Himeiwa as an independent director based on the Standards for Independence of Outside Directors.	Board of Directors (13/13) Audit & Supervisory Committee (18/18) Nominating Committee (3/3) Compensation Committee (6/6)
Yutaka Nakagawa	○	○	Mr. Nakagawa has worked for many years in the audio visual equipment and semiconductor businesses, etc. Given his experience in corporate management as an executive officer and his wealth of professional experience and knowledge, we have determined that he is well suited to serve as an outside director at Sharp. Further, we have designated Mr. Nakagawa as an independent director based on the Standards for Independence of Outside Directors.	Board of Directors (13/13) Audit & Supervisory Committee (18/18) Nominating Committee (3/3) Compensation Committee (6/6)
Limin Hu		○	Mr. Hu has been involved in management as a co-founder of the FinTech company Ellie Mae Inc. Given his wealth of experience and knowledge, we have determined that he is well suited to serve as an outside director at Sharp. Further, we have designated Mr. Hu as an independent director based on the Standards for Independence of Outside Directors.	—
Steve Shyh Chen		○	Mr. Chen has been involved in the founding of many businesses, including YouTube Inc. Given his wealth of experience and knowledge as an entrepreneur, we have determined that he is well suited to serve as an outside director at Sharp. Further, we have designated Mr. Chen as an independent director based on the Standards for Independence of Outside Directors.	—

Director Remuneration

Disclosure Status of Remuneration for Each Director, and Policy for Deciding Remuneration Amount or Calculation Methods

Regarding remuneration for directors (excluding directors on the Audit & Supervisory Committee), the Ordinary General Meeting of Shareholders, held June 27, 2023, resolved to cap cash remuneration at ¥500 million per fiscal year (of which a maximum of ¥50 million may be paid to outside directors).

The Company grants restricted stock as nonmonetary remuneration or stock acquisition rights as stock options to directors, up to a limit of ¥300 million (150,000 shares or 1,500 units) per fiscal year, of which a maximum of ¥30 million (15,000 shares or 150 units) may be granted to outside directors. This allows us to better align values between Sharp directors and shareholders, as well as to strengthen the sense of responsibility and increase motivation related to corporate performance.

The Compensation Committee, delegated authority by the Board of Directors, determines monetary remuneration for individual directors (excluding members of the Audit & Supervisory Committee) within the scope approved by the Ordinary General Meeting of Shareholders. The Compensation Committee provides advice regarding nonmonetary remuneration, which is determined by a resolution of the Board of Directors in consideration of said advice.

Monetary remuneration is limited to ¥100 million per fiscal year for directors who are Audit & Supervisory Committee members per resolution of the Ordinary General Meeting of Shareholders, held June 29, 2021.

To better align values between Sharp directors who are members of the Audit & Supervisory Committee and shareholders, the Company grants restricted stock as nonmonetary remuneration separate from the framework for monetary remuneration to directors who are members of the Audit & Supervisory Committee, up to a limit of ¥60 million (30,000 shares) per fiscal year. This remuneration is designed to improve a greater awareness of the need for complete and comprehensive audits, to prevent loss of corporate value, and to maintain trust in the company.

The Ordinary Meeting of General Shareholders approves the scope of monetary and nonmonetary remuneration for individual directors who are members of the Audit & Supervisory Committee, the amounts of which are then determined according to discussions among directors who are members of the Audit & Supervisory Committee.

Remuneration, etc., for Sharp directors (excluding directors who are members of the Audit & Supervisory Committee) for the fiscal year ended March 31, 2023 was ¥183 million (six directors, including three directors who retired during the term). Remuneration, etc., for directors who are members of the Audit & Supervisory Committee was ¥67 million (three outside directors).

The company does not disclose remuneration for individual directors.

Ongoing Development of the Internal Control System

In May 2006, the Board of Directors passed a resolution to adopt the Basic Policy for Internal Control (final revision in August 2022). Sharp is currently engaged in the development and operation of internal control systems in accordance with this Basic Policy. The Internal Control Committee, which serves as an advisory body to the Board of Directors, deliberates on basic policies regarding internal controls, internal audits, and the status of internal controls-related policies and operations. The committee reports on or refers matters to the Board of Directors as necessary. Sharp has established departments to supervise and implement measures and initiatives related to internal controls on a company-wide basis. Sharp has also established an independent internal audit division to evaluate the effectiveness of internal control and provide feedback on a continuing basis.

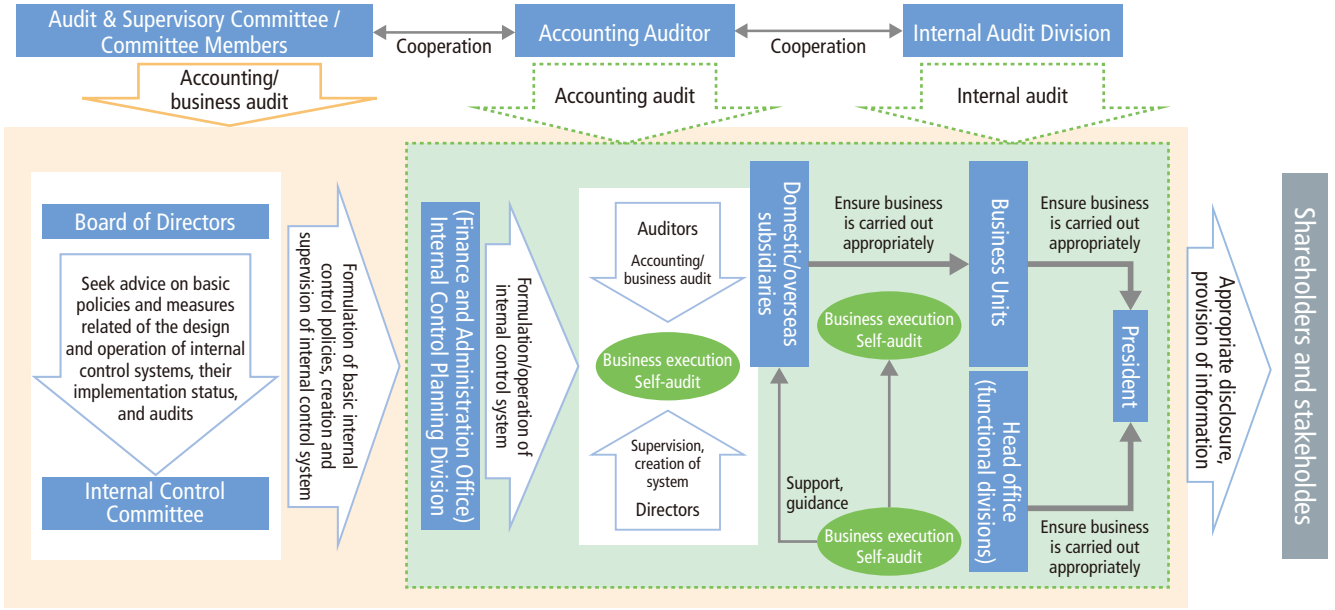
To enhance compliance throughout the Group, Sharp introduced the Sharp Group Charter of Corporate Behavior, a set of principles to guide corporate behavior, and the Sharp Code of Conduct, which clarifies the conduct expected of all directors, executives, and employees of Sharp. Disseminating these throughout the Company and conducting annual trainings fosters a mindset of preventing problems before they occur. In accordance with the basic rules of compliance, Sharp is also developing a companywide compliance promotion system. Sharp is also formulating the Sharp Group Compliance Guidebook which points out specific standards for items to be observed, prohibited items, and actions to be taken by all directors, executives, and employees. This is being provided to the whole company in order to ensure thorough compliance.

On the subject of compliance-related whistleblowing systems, we have established the Crystal Hotline to handle various issues regarding compliance, including organizational or individual violations of the law or ethics, and the workplace occurring at Sharp or domestic subsidiaries as well as the Competition Law Hotline to handle issues regarding competition laws. These hotlines have been established both internally and externally (making use of advisory law firm services) in keeping with the Whistleblower Protection Act and may be used by any employees or temporary employees of the Sharp Group in Japan, or employees of its business partners, etc*. In addition, our major overseas bases have also established similar whistleblowing and consultation facilities.

To deal comprehensively and systematically with a wide range of business risks, Sharp formulated its Business Risk Management Guidelines for the prevention of risk and for the swift response to any emerging risks.

* Business partners may only use the Crystal Hotline.

Internal Control System (As of June 2023)



Risk Factors

Listed below are the principal business risks of Sharp that may have a significant influence on investors' decisions and countermeasures.

Note that in addition to these, there exist certain other risks that are difficult to foresee.

Each of these risks has the potential to impact the operations, business results, and financial position of Sharp.

All references to possible future developments in the following text were made by Sharp as of March 31, 2023 (or June 28, 2023 as appropriate).

(1) Global market trends and overseas businesses

(Risk)

Sharp conducts its business not only in Japan but also in different regions around the world. Business results and financial position are thus subject to economic trends (especially private consumption and corporate capital investment trends), competition with other companies, product demand, raw material supply, and price fluctuations in each region around the world, including Japan.

At present, the performance and financial position of Sharp may be adversely affected by the economic slowdown resulting from the prolonged situation in Ukraine, global inflation, and monetary tightening in various countries.

(Countermeasure)

Business units that control Sharp's overseas subsidiaries collect risk and other information that may impact Sharp's operations, including global market trends, in cooperation with their local offices and make necessary operational decisions. Business results of the overseas subsidiaries and business units are reported to management regularly, and changes from those in the previous report are analyzed with prescribed necessary measures taken against risks.

(2) Exchange rate fluctuations

(Risk)

The proportion of consolidated net sales accounted for by overseas sales was 67.2% in fiscal 2021 and 68.6% in fiscal 2022. Sharp sells products made overseas in the Japanese market, and also sells products in countries where it does not manufacture the products. Therefore, Sharp's business results may be impacted by exchange rate fluctuations.

(Countermeasure)

Sharp hedges the risk of exchange rate fluctuations by employing forward exchange contracts and expanding and strengthening optimally located production.

(3) Dependence on certain businesses, products, and clients

(Risk)

Sharp's device businesses account for nearly half of Sharp's sales. Accordingly, Sharp's earnings may be impacted negatively by factors including slowing customer demand for related products, falling product prices, or increasing competition due to the emergence of substitute or competitive products, or the emergence of new competitors.

Sharp's device businesses have high dependence on a small number of specific clients for the sales of some of their products. Sharp's business results and financial position could be affected if sales to such important clients languish due not to only factors related to Sharp's products but reasons outside of Sharp's control. These include declining demand for the clients' products, changes in product specifications, and changes in the clients' sales strategies.

(Countermeasure)

Sharp aims to gain superior competitive advantages by accelerating a business model shift achieved by launching new high value-added service solutions; accelerating the global business expansion; and simultaneous entry to the B2C and B2B markets, in addition to maintaining and expanding the existing business segments by expanding the traditional hardware business.

(4) Strategic alliances and collaborations

(Risk)

Sharp has forged strategic alliances and collaborations with other companies in order to enhance corporate competitiveness, improve profitability, and bolster the development of new technologies and products in various business fields. If, however, any strategic issues with such strategic partners or other business issues arise, or goals change, it may become difficult to maintain such alliances and collaborative ties with these companies, or to generate adequate results. In such cases, Sharp's business results and financial position may be impacted.

(Countermeasure)

Sharp believes that importance of strategic alliances and collaborations will grow in the future. To lead them to success, Sharp thoroughly verifies the business strategic necessity, profitability, and financial appropriateness beforehand at the stage of executing strategic alliances and collaborations, and makes decisions after deliberation at the Executive Management Meeting and the Board of Directors.

After executing them, Sharp monitors the progress of the alliances and collaborations under close cooperation with the relevant business units, and reports to management early if it is determined that the expected results cannot be achieved, to ensure that measures can be taken to minimize the impact they may have on Sharp's business results and financial position.

(5) Relations with parent company group

(Risk)

The equity investments from our parent company group (including Hon Hai Precision Industry, subsidiaries, and affiliates) allowed Sharp to invest in growth, and to pursue operational synergies using the technological, productivity, and cost capabilities of our parent company group. However, we cannot guarantee that operational synergies between Sharp and the parent company group will occur as envisioned.

A change in the parent company group's

business strategies or competitive relationship with the parent company group arising in the future may adversely affect Sharp's operations, business results, and financial position.

Decision making of important matters, such as management policy and business development may be biased by the parent company group and maintaining our independence and autonomy may not be possible.

(Countermeasure)

Sharp conducts business operations by maximizing operational synergies with the parent company group while fully respecting independence and autonomy between both entities and in close cooperation with the parent company group. Sharp identifies areas where Sharp can create synergy effects with the parent company group, such as its operational efficiency improvement and expansion of its sales and profits, and Sharp appropriately verifies the expected synergies in those areas in cooperation with the parent company group in an effort to implement them.

The parent company group engages mainly in outsourced production of electronic equipment, and given that our manufactures and sells telecommunications equipment, electrical appliances, and general electronics application equipment and components under the Sharp and other our brands. We believe that there is no competition within the parent group that would impact group businesses in conflict. Therefore, Sharp believes that there is no competition in the parent company group that may impact Sharp's operations.

Sharp strives to grow, develop, and improve its performance in close cooperation with the parent company group, while fully respecting independence and autonomy between both entities. Sharp recognizes that working together with the parent company group to increase Sharp's operational efficiency and expand its sales and profits will benefit the interests of non-controlling shareholders.

(6) Dealings with suppliers

(Risk)

Sharp procures materials and receives services from a large number of business partners. However, there is a risk that business partners may suffer deterioration in performance due to slumping demand or severe price erosion, unexpected M&A, or natural disasters or accidents. They may also be affected by the U.S.-China trade friction, the situation in Ukraine, rising raw materials prices and energy costs, legal regulations concerning human rights environmental issues such as the problem of conflict minerals in the supply chain, shortages in semiconductors due to strong demand, or limited suppliers with the capability of providing certain material provisions. Due to these and other factors, Sharp may be unable to access sufficient supplies of materials/parts from procurement sources.

In such an event, Sharp may be forced to do business with alternative suppliers subject to conditions less favorable than with its current suppliers, or Sharp may be unable to find an alternative supplier in a timely manner. Any of these factors could lead to increases in costs and/or delays in deliveries to customers, which may adversely affect Sharp's business results and financial position.

(Countermeasure)

Sharp conducts business with suppliers after carrying out thorough credit checks. Additionally, Sharp has introduced a supply chain CSR management system to address risks in the supply chain, and regularly evaluates suppliers at domestic and overseas production sites, providing thorough education and guidance. Furthermore, in order to ensure a stable supply of parts and materials and to optimize costs of procurement, Sharp is strengthening partnerships with suppliers such as for long-term quotas, and is also promoting purchasing from multiple companies.

(7) Other factors affecting financial position

(Risk)

Sharp raises funds through borrowings from financial institutions such as banks. The debt to total assets ratio is 39.9% as of fiscal year ending March 31, 2023. Sharp might become subject to restrictions on how it uses its cash flows in order to repay debt, and also face the possibility of an increase in expenses due to rising interest rates. Sharp has the possibility of increases in fund raising costs as well as limitations on fund raising. This may be because necessary funds cannot be raised at the required time with adequate conditions, including for the refinancing of existing debt. These factors may affect Sharp's business results and financial position.

Sharp has borrowing agreements with multiple financial institutions, and some of the agreements entail financial covenants. Sharp may forfeit the benefit of time with respect to such borrowings at the request of the lender's financial institution due to any of the following reasons: (1) If consolidated net assets fall below the levels specified under such financial covenants, (2) if Sharp fails to undertake faithful consultations in the event that its consolidated operating profit and profit attributable to owners of parent fall below specified levels, (3) if its consolidated ordinary profit cannot be kept at certain levels, or (4) if Sharp or any of our consolidated subsidiaries becomes insolvent.

Sharp's dependence on borrowings, credit ratings reduction caused by it, or deterioration of Sharp's financial position may work to its disadvantage with respect to competition with other companies with robust financial positions, and contract-related issues could also arise between Sharp and its lenders or business partners.

(Countermeasure)

Sharp's major lending institutions are Mizuho Bank, Ltd. and MUFG Bank, Ltd. As necessary, Sharp consults with both banks about ways to improve its financial position and other matters. Sharp also shares information about its financial position with other financial institutions with which Sharp has borrowing agreements. Sharp has a system in place to discuss matters when necessary, keeps good relations with its correspondent financial institutions, and maintains and continues borrowings.

To procure stable funding, the Company syndicated loan agreement, which is the main borrowing

agreement for the Group, is a long-term loan agreement through April 2026. We also entered into commitment line agreements with two main banks totaling 200,000 million yen in loans.

(Material events related to the going concern assumption)

In fiscal 2022 the Company recorded an impairment loss of 220,553 million yen mainly due to deteriorating market conditions for large LCD panels and other factors. As a result, net loss attributable to owners of the parent amounted to 260,840 million yen, and consolidated net assets decreased to 222,362 million yen, down 52.6% year on year. The insolvency of certain consolidated subsidiaries at the end of fiscal 2022 was a cause for which the lender financial institutions could claim for forfeiture of the benefit of time under the Company syndicated loan agreement. However, the lending institutions have agreed to not make this claim for forfeiture based on the occurrence of the said events, and we expect to continue our good business relationship with the lender as in the past.

On the business front, we aim to return to profitability from the fiscal year ending March 31, 2024. To do so, we will work towards achieving sustainable future growth and build a business structure centered on the brand business, accelerate the materialization of new businesses, and develop innovative technologies and devices that will enable us to "Be a Game Changer."

We determined that there are no significant concerns about cash flow in working capital and investment funds for the time being, as the impairment loss is not one that involves an outflow of funds. Although events and circumstances exist that may raise significant doubts about our premise of a going concern, no significant uncertainties have been identified. As such, Notes Related to the Going Concern Assumption is not applicable.

(8) Technological innovation

(Risk)

Rapid technological advancement and proper response to changes in the business areas where Sharp operates improves the competitiveness of Sharp's products and services, whereas insufficient response to the following items may adversely affect the growth and business results.

- Prediction and response to the technological advancement and rise and fall, and their social significance
- Selection and concentration in R&D, and proper resource allocation
- Technological enhancement for new areas
- Acceleration of R&D in collaboration with external partners

In addition, there are moves to strengthen export control of advanced technologies from the perspective of international security. Export restrictions on products containing more than a certain amount of added value from the targeted technologies could have an indirect impact on our business.

(Countermeasure)

Group research and development is not limited to mere improvement of technological standards, but also focuses on creating technologies that solve issues arising with rapid changes in society, particularly in growth areas such as digital healthcare, carbon neutrality, and industry digital transformation. We advance the creation of new services and solutions by effectively utilizing our business foundation built to date to promptly implement necessary technologies in society. We also work to strengthen our technological capabilities and accelerate development through active collaboration outside the company. Through these initiatives, Sharp reduces risks associated with social changes and technological innovations, and aims to become a brand company that continues to grow sustainably through technological advancement.

In addition to complying with export and import control laws and regulations in the operational activities, Sharp executes control for export and import in conformance with laws and regulations as well as regulatory situation in each country and region in R&D to deal with the tightening of control of emerging technologies involving social platforms for global infrastructure, defense, security, and so on.

(9) Intellectual property rights

(Risk)

Sharp strives to protect its unique technologies by acquiring intellectual property rights in Japan and in other countries, and by concluding contracts with other companies. There may also be instances in which no rights are granted to the group's patent applications, or where a third party launches litigation against Sharp, claiming infringement of intellectual property rights.

Resolution of cases may place a significant financial burden on Sharp. Furthermore, if a third party claim against Sharp is recognized, Sharp may be subject to damages, including by having to pay a large amount of compensation, or by having to cease using the technology in question.

In addition, intellectual property that Sharp holds may not result in a superior competitive advantage, or Sharp may not be able to make effective use of such intellectual property, such as when a third party infringes on the intellectual property rights of Sharp.

If any of the above problems related to intellectual property rights were to occur, it could impact Sharp's business results and financial position.

(Countermeasure)

Under recognition that the intellectual property rights are important assets for a company, Sharp strives to actively create intellectual properties, and tries to acquire strong rights by mainly using Sharp's subsidiary ScienBiziP Japan Co., Ltd., its intellectual property rights application and acquisition division.

Before releasing its products, Sharp checks the clearance of intellectual property rights by thoroughly checking the intellectual property rights of third parties, and at the same time, Sharp improves clearance accuracy by standardizing the clearance process. Thus, Sharp implements measures against the risk of infringing on the intellectual property rights of third parties.

Further, Sharp maximizes the use of intellectual property rights in conjunction with the business and R&D strategies, and at the same time, protects its intellectual property rights and fully respects the intellectual property rights of third parties. In principle, Sharp resolves a dispute concerning an infringement of rights through dialogue, but if its intellectual property rights are not respected by a third party, Sharp does not hesitate to seek a judgment by a third party, such as a court.

(10) Product liability

(Risk)

Many of Sharp's products are for consumer use, and also incorporate innovative technologies. If defects arise in any of these products, Sharp may incur responsibility as a manufacturer and other obligations.

There is a risk of a large-scale product recall or litigation caused by unforeseen events, which may adversely affect Sharp's brand image or influence its business results and financial position.

(Countermeasure)

Sharp not only complies with public safety standards in each country to ensure the safety of its products but also improves safety by combining the risk assessment policy with its unique safety criteria. To ensure safety even if an unexpected problem arises, in particular criteria for inflammable structure, malfunction test, etc. were established, and they are revised when necessary to pursue a higher level of safety, and training is performed for internal stakeholders to ensure that the safety criteria are understood and shared by the design and quality departments. Sharp has established a system to ensure safety to make sure that an emergency action can be taken quickly and appropriately when a problem arises. In order to fulfill its responsibility as a manufacturer in case product defects do arise, Sharp has taken out insurance to cover compensations based on product liability.

(11) Competition to secure skilled personnel

(Risk)

Failure to secure skilled personnel in the technology and management fields could affect Sharp's business results and financial position.

(Countermeasure)

Sharp implements the following measures to secure skilled personnel in the technology and management fields.

Sharp actively hires new graduates in order to acquire new talents according to its business policies. Sharp also actively hires experienced personnel in order to secure core personnel responsible for new businesses.

Sharp created education and training programs that allow all employees to acquire basic and professional knowledge by self-driven learning to develop professional personnel who can fulfill their professional duties.

As a platform where diverse human resources can work with peace of mind, Sharp actively implements initiatives in consideration of the work-life balance of employees, such as creating various programs to strike a balance between work and child upbringing/care/treatment.

(12) The impact of climate change

(Risk)

Group business results and financial position could be affected by stricter regulations on greenhouse gas emissions, increased energy costs associated with the introduction of a carbon tax, and tighter measures to reduce greenhouse gas emissions. In addition, disasters caused by increasingly larger typhoons and greater precipitation due to climate change may cause production sites to suspend operations or interrupt parts supply.

(Countermeasure)

Sharp ensures compliance with existing regulations and standards. In addition, we strive to remain abreast of legal and regulatory trends and participate in policy-making opportunities. We also endeavor to reduce or minimize our cost burden by improving production efficiency and energy conservation. Further, Sharp has formulated a business continuity plan in the event that production sites or employees suffer damage from natural disasters. We maintain and improve our organization's business continuity capabilities through regular reviews and drills.

In addition to the risks above, there are various potential risks, including a risk of dealing with a large number of clients, capital investment risk, regulatory risk, or large-scale natural disaster risk. There are other potential risks that are not mentioned in this section which may adversely affect Sharp's business results and financial position.

(Risk management system)

Sharp sees the risk management as "one of the important activities to fulfill our social responsibilities by growing the business sustainably and meeting the expectations of our stakeholders." Specifically, Sharp has established the Business Risk Management Guidelines as basic rules for the risk management, created a company-wide risk management system in line with the guidelines, and selected risks that have significant impact on the business as "specific risks" and manages them.

To respond to changes in the business and market environments, Sharp considers adding or changing specific risks every fiscal year for all specific risks, and reviews, scores, and prioritizes the added or changed specific risks. The functional department that manages company- wide risks works together with business units in charge of managing their business segments to minimize and mitigate risks and take the necessary measures to prevent them. In addition, in case a specific risk arises, the department where the incident arises reports it to the internal control department that serves as risk management secretariat as well as management, works together with the relevant departments to respond to the relevant incident, and, when necessary, considers company-wide improvement measures to prevent recurrence.

Members of the Board and Executives

(As of October 1, 2023)

Members of the Board

Member of the Board
(Representative)
Po-Hsuan Wu

Member of the Board
(Representative)
Masahiro Okitsu

Member of the Board
Limin Hu
○■

Member of the Board
Steve Shyh Chen
○■

Member
of the Board
(Member of Audit
& Supervisory
Committee)
Hsu-Tung Lu
○

Member
of the Board
(Member of Audit
& Supervisory
Committee)
Yasuo Himeiwa
○■

Member
of the Board
(Member of Audit
& Supervisory
Committee)
Yutaka Nakagawa
○■

○ Outside Directors
■ Independent Directors

Skills Matrix

Name	Corporate management and business strategy	International business and overseas expertise	Engineering and technology	Finance and accounting	Risk management and compliance
Po-Hsuan Wu	○	○			○
Masahiro Okitsu	○	○	○		○
Limin Hu	○	○	○		
Steve Shyh Chen	○	○	○		
Hsu-Tung Lu		○		○	○
Yasuo Himeiwa		○		○	○
Yutaka Nakagawa	○	○	○		○

Executives

President & Chief Executive Officer	Po-Hsuan Wu
Executive Vice President	Masahiro Okitsu
Executive Vice President & Chief Financial Officer	Hsin-Shu Chen
Executive Managing Officer	Taimi Oketani
Executive Managing Officer	Yoshio Kosaka
Executive Managing Officer	Chien-Erh Wang
Executive Managing Officer	Mototaka Taneya
Executive Officer	Yasufumi Sugahara
Executive Officer	Tetsuji Kawamura
Executive Officer	Yoshiro Nakano

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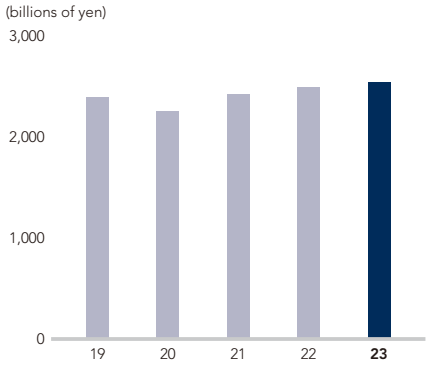
Financial Review

Sharp Corporation and Consolidated Subsidiaries

Net Sales

Consolidated net sales for the fiscal year ended March 31, 2023 amounted to ¥2,548,117 million, up ¥52,529 million (2.1%) year on year.

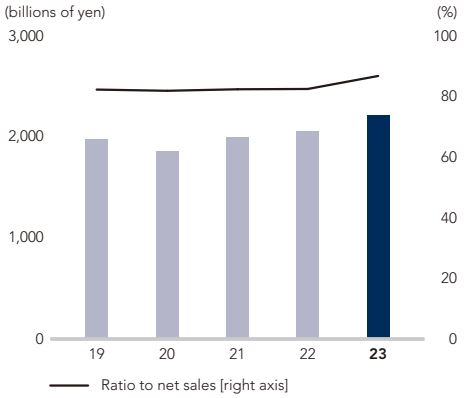
Net Sales



Financial Results

Cost of sales increased ¥153,420 million to ¥2,217,285 million, while our cost of sales ratio increased from 82.7% to 87.0% year on year.

Cost of Sales



Selling, general and administrative (SG&A) expenses increased ¥9,544 million to ¥356,550 million. The ratio of SG&A expenses against net sales increased from 13.9% to 14.0% year on year. SG&A expenses included salaries and allowances of ¥121,538 million, retirement benefit expenses of ¥3,188 million, transportation and storage costs of ¥44,606 million, and research and development expenses of ¥17,013 million.

As a result, operating loss amounted to ¥25,719 million, compared to operating profit of ¥84,716 million in the previous fiscal year.

Non-operating income decreased ¥9,355 million to ¥40,683 million due to a decrease in share of profit of entities accounted for using equity method and foreign exchange gains, while non-operating expenses increased ¥25,661 million to ¥45,451 million due to the recording of share of loss of entities accounted for using equity method.

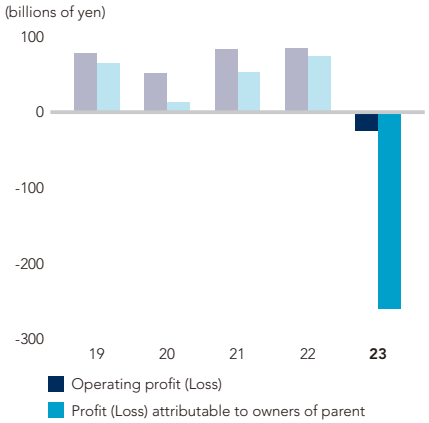
Extraordinary income increased ¥6,839 million to ¥19,833 million, mainly due to the recording of gain on step acquisitions, etc. Extraordinary losses increased ¥190,232 million to ¥228,389 million, mainly due to an increase in impairment losses.

As a result, loss before income taxes totaled ¥239,043 million, compared to profit before income taxes of ¥89,802 million in the previous fiscal year.

Loss attributable to owners of parent amounted ¥260,840 million compared to profit attributable to owners of parent of ¥73,991 million in the previous fiscal year.

Loss per share of common stock was ¥407.31.

Operating Profit (Loss)/ Profit (Loss) Attributable to Owners of Parent



Segment Information

<Brand Businesses>

[Smart Life]

Sales increased 5.1% year on year to ¥468,743 million. Sales in the white goods business increased, even though market conditions in Japan, ASEAN, and other regions around the world began to weaken in the second half. Sales of cooking appliances rose significantly in Europe and the Americas, and washing machines increased due to strong performance of drum washing machines, etc. In addition, sales in the energy solution business increased, driven by the overseas EPC business and household products in Japan. Segment income decreased 41.6% year on year to ¥28,209 million, mainly due to a soaring raw materials prices and a decline in profit from the domestic white goods business caused by weakening of the yen.

[8K Ecosystem]

Sales increased 4.3% year on year to ¥591,832 million. Sales in the business solutions business rose more than 10% year on year. The MFP business and smart office business grew significantly in Europe, the Americas, and Asia. In addition, information displays saw growth in Europe and the Americas, and other regions. Meanwhile, sales in the TV business declined due to deteriorating market conditions. Segment income decreased 46.2% year on year to ¥13,421 million. Business solutions business posted higher profit by shifting toward high-value-added offerings. Meanwhile, TV business recorded a lower profit due to the impact of a decrease in sales and the

recording of one-time expenses.

[ICT]
Sales increased 0.6% year on year to ¥325,873 million. Sales in the mobile communication business increased due to a sales expansion of high-end models as we expanded our lineup of smartphones. Meanwhile, sales in the PC businesses decreased due to weak global demand. Segment loss amounted to ¥5,530 million compared to segment profit of ¥4,038 million in the previous fiscal year. This was mainly due to the weakening of the yen. However, ICT began profit improvement initiative ahead of other businesses, including structural reforms in Europe and improved product mix. These measures resulted in net operating profit for the mobile communication business and the PC business in the second half.

<Device Businesses>
[Display Device]
Sales decreased 11.6% year on year to ¥759,953 million. While panels sales grew for automotive, sales of panels for smartphones and PCs declined due to challenging market condition. Segment loss amounted to ¥66,482 million compared to segment profit of ¥20,316 million in the previous fiscal year. This was mainly due to lower sales and the impact of large-size display business.

[Electronic Device]
Sales increased 19.8% year on year to ¥475,589 million, mainly due to the firm device sales for customer 2022 models. Segment income increased 111.8% year on year to ¥14,799 million, mostly as a result of higher sales.

Sales by Segment

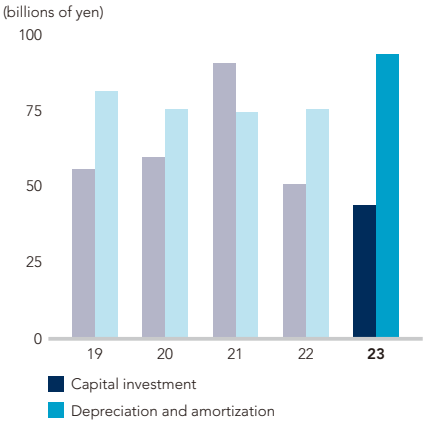
	Yen (millions)	
	2022	**2023**
Smart Life	¥ 446,192	**¥ 468,743**
8K Ecosystem	567,690	**591,832**
ICT	324,017	**325,873**
Display Device	859,674	**759,953**
Electronic Device	396,834	**475,589**
Subtotal	2,594,410	**2,621,992**
Adjustments	(98,822)	**(73,875)**
Total	2,495,588	**2,548,117**

Segment Income (Loss) by Segment

	Yen (millions)	
	2022	**2023**
Smart Life	¥ 48,291	**¥ 28,209**
8K Ecosystem	24,966	**13,421**
ICT	4,038	**(5,530)**
Display Device	20,316	**(66,482)**
Electronic Device	6,988	**14,799**
Subtotal	104,601	**(15,582)**
Adjustments	(19,884)	**(10,137)**
Total	84,716	**(25,719)**

Capital Investment and Depreciation
Capital investment totaled ¥44,512 million, down 13.9% year on year, mainly due to the introduction of camera module production equipment.

Capital Investment/ Depreciation and Amortization



By business segment, capital investment was ¥4,703 million for Smart Life, ¥9,710 million for 8K Ecosystem, ¥282 million for ICT, ¥14,262 million for Display Device, and ¥14,453 million for Electronic Device. Unallocated capital investment amounted to ¥1,102 million.

Depreciation and amortization increased by 24.3% to ¥94,547 million year on year.

Assets, Liabilities and Net Assets
Total assets at fiscal year-end amounted to ¥1,772,961 million, down ¥183,327 million from the previous fiscal year.

Assets
Beginning with the consolidated fiscal year ended March 31, 2023, we included Sakai Display Products Corporation ("SDP") in the scope of consolidation. Non-current assets and goodwill recorded in connection with this inclusion were subject to impairment, while Sharp Corporation's receivables, etc. from SDP, included in total assets at the end of the previous consolidated fiscal year, were eliminated in consolidation. These factors led to a decrease in total assets.

Current assets amounted to ¥1,087,087 million, down ¥143,540 million from the end of the previous fiscal year. This result was mainly due to the changes in cash and deposits, notes and accounts receivable-trade and contract assets, and inventories decreased by ¥25,302 million, ¥49,102 million, and ¥10,975 million, respectively from the end of the previous fiscal year. Notes and accounts receivable-trade and contract assets amounted to ¥438,057

million. Inventories amounted to ¥299,307 million. Within total inventories, finished goods increased ¥6,209 million to ¥171,835 million, work in process decreased ¥15,605 million to ¥76,908 million, and raw materials and supplies decreased ¥1,579 million to ¥50,564 million.

Property, plant and equipment decreased ¥29,003 million from the end of the previous fiscal year to ¥389,257 million.

Investments and other assets amounted to ¥260,770 million, down ¥4,343 million from the end of the previous fiscal year.

Liabilities

Current liabilities increased ¥74,364 million from the end of the previous fiscal year to ¥882,563 million. This result was mainly due to an increase of ¥109,596 in short-term borrowings from the end of the previous fiscal year, which was offset in part by a decrease of ¥50,494 million in notes and accounts payable-trade.

Non-current liabilities decreased ¥10,785 million from the end of the previous year to ¥668,034 million. This result was mainly due to a decrease of ¥29,542 million in long-term borrowings.

Interest-bearing debt at fiscal year-end stood at ¥751,138 million, up ¥110,424 million from the end of the previous fiscal year.

Net Assets

Net assets amounted to ¥222,362 million, down ¥246,906 million compared to the previous fiscal year-end balance of ¥469,269 million. This result was mainly due to a decrease in retained earnings by the recording of loss attributable to owners of parent.

Our equity ratio was 11.8%.

Cash Flows

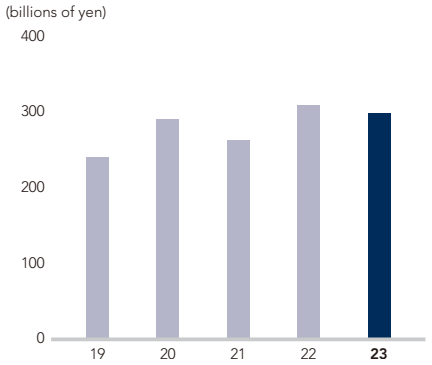
Cash and cash equivalents were ¥206,612 million, down ¥32,746 million from the end of the previous fiscal year. The combined capital outflows from investing activities and financing activities exceeded the capital inflows from operating activities.

Cash provided by operating activities amounted to ¥14,746 million, down ¥60,411 million compared to cash provided of ¥75,157 million in the previous fiscal year. The reason for this decrease was mainly due to a decrease of ¥328,845 million in profit before income taxes, despite the changes in inventories increased by ¥66,820 million and trade receivables and contract assets increased by ¥48,452 million compared to the previous fiscal year.

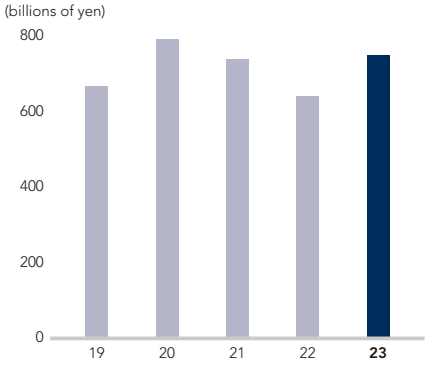
Cash used in investing activities totaled ¥40,967 million, up ¥9,518 million compared to cash used of ¥31,448 million in the previous fiscal year. The result was mainly due to decreases of ¥2,249 million in proceeds from sale of investment securities and ¥3,647 million in proceeds from sale of businesses compared to the previous fiscal year.

Cash used in financing activities was ¥18,483 million, down ¥105,807 million compared to cash used of ¥124,291 million in the previous fiscal year. This is mainly due to an increase of ¥128,347 million in net increase (decrease) in short-term borrowings, despite a decrease of ¥6,112 million in dividends paid compared to the previous fiscal year.

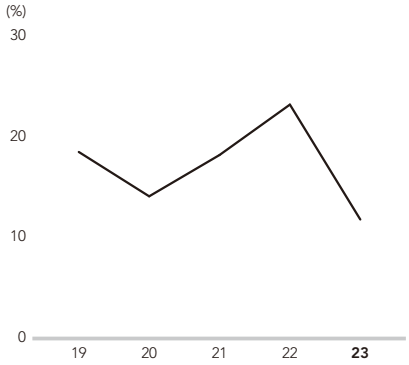
Inventories



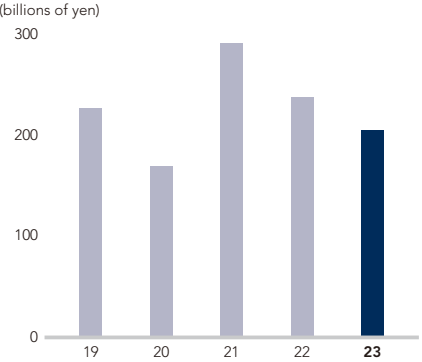
Interest-Bearing Debt



Equity Ratio



Cash and Cash Equivalents



Notes:

1. Sales figures by segment shown in Segment Information include internal sales and transfers among segments (Smart Life, 8K Ecosystem, ICT, Display Device, Electronic Device). Segment income figures are amounts before adjustment for inter segment trading.
2. Effective from the consolidated fiscal year ending March 31 2024, Sharp has amended its segment classification. Please refer to "20. Significant Subsequent Events (a) Segment reclassification", P.68, for information on net sales, income or loss of each reclassified reportable segment for the fiscal year ended March 31, 2023 based on the new segmentation.
3. Capital investment figures shown in Capital Investment and Depreciation include the amount of leased assets.

Consolidated Balance Sheets

Sharp Corporation and Consolidated Subsidiaries as of March 31, 2022 and 2023

	Yen (millions)	
	2022	**2023**
ASSETS		
Current Assets		
Cash and deposits (Notes 2 (c) and 6)	¥ 287,361	**¥ 262,058**
Notes and accounts receivable - trade and contract assets (Notes 2 (c), 2 (f), and 8)	487,160	**438,057**
Inventories (Notes 2 (b) and (c))	310,283	**299,307**
Other (Notes 2 (c) and 7)	148,165	**90,713**
Allowance for doubtful accounts	(2,342)	**(3,049)**
Total current assets	1,230,628	**1,087,087**
Non-current Assets		
Property, plant and equipment		
Buildings and structures (Note 2 (c))	689,458	**695,180**
Machinery, equipment and vehicles (Note 2 (c))	1,191,042	**1,181,932**
Tools, furniture and fixtures (Note 2 (c))	177,359	**170,801**
Land (Note 2 (c))	83,711	**76,467**
Construction in progress (Note 2 (c))	18,395	**24,982**
Other	48,109	**57,352**
Accumulated depreciation	(1,789,815)	**(1,817,459)**
Total property, plant and equipment	418,260	**389,257**
Intangible assets		
Software	25,954	**23,322**
Goodwill	8,439	**6,284**
Other	7,890	**6,237**
Total intangible assets	42,285	**35,845**
Investments and other assets		
Investment securities (Notes 2 (a), 2 (c), 8 and 9)	171,392	**216,207**
Retirement benefit asset (Note 12)	10,293	**6,214**
Deferred tax assets (Note 14)	22,391	**18,127**
Other (Notes 2 (c) and 7)	63,595	**22,667**
Allowance for doubtful accounts	(2,559)	**(2,445)**
Total investments and other assets	265,114	**260,770**
Total non-current assets	725,660	**685,873**
Total assets	¥ 1,956,288	**¥ 1,772,961**

	Yen (millions)	
	2022	**2023**
LIABILITIES		
Current Liabilities		
Notes and accounts payable — trade	¥ 379,394	**¥ 328,899**
Electronically recorded obligations — operating	42,980	**42,973**
Short-term borrowings (Notes 2 (c) and 11)	54,300	**163,896**
Lease liabilities	2,283	**18,966**
Accrued expenses	106,398	**114,638**
Provision for bonuses	18,506	**15,791**
Provision for product warranties	19,750	**12,165**
Provision for loss on litigation	12,288	**614**
Provision for sales promotion expenses	9,586	**4,120**
Provision for restructuring	174	**1,024**
Other (Notes 2 (c), 2 (f) and 11)	162,534	**179,472**
Total current liabilities	808,198	**882,563**
Non-current Liabilities		
Long-term borrowings (Notes 2 (c), 8 and 11)	572,270	**542,727**
Retirement benefit liability (Note 12)	73,630	**72,019**
Other (Notes 11 and 14)	32,919	**53,287**
Total non-current liabilities	678,820	**668,034**
Total liabilities	1,487,018	**1,550,598**
NET ASSETS		
Shareholders' equity		
Share capital	5,000	**5,000**
Capital surplus	108,623	**148,929**
Retained earnings	345,218	**59,802**
Treasury shares	(13,747)	**(13,749)**
Total shareholders' equity	445,094	**199,982**
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	20,169	**26,469**
Deferred gains or losses on hedges	1,835	**475**
Foreign currency translation adjustment	(9,085)	**(2,266)**
Remeasurements of defined benefit plans	(3,745)	**(16,211)**
Total accumulated other comprehensive income	9,173	**8,467**
Share acquisition rights (Note 5 (b))	304	**293**
Non-controlling interests	14,696	**13,618**
Total net assets	469,269	**222,362**
Total liabilities and net assets	¥ 1,956,288	**¥ 1,772,961**

The accompanying notes to consolidated financial statements are an integral part of these statements.

Consolidated Statements of Operations

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Years Ended March 31, 2022 and 2023

	Yen (millions)	
	2022	**2023**
Net Sales (Notes 3 (a), 16 and 17)	¥ 2,495,588	**¥ 2,548,117**
Cost of Sales (Notes 3 (b) and (d))	2,063,864	**2,217,285**
Gross profit	431,723	**330,831**
Selling, General and Administrative Expenses (Notes 3 (c) and (d))	347,006	**356,550**
Operating profit (loss) (Note 17)	84,716	**(25,719)**
Non-operating Income		
Interest income	2,583	**2,681**
Dividend income	1,543	**1,533**
Rental income from non-current assets	3,465	**4,396**
Foreign exchange gains	18,947	**17,223**
Share of profit of entities accounted for using equity method	3,630	**—**
Investment income	9,263	**6,907**
Other	10,605	**7,942**
Total non-operating income	50,038	**40,683**
Non-operating Expenses		
Interest expenses	4,448	**9,296**
Share of loss of entities accounted for using equity method	—	**20,401**
Other	15,342	**15,753**
Total non-operating expenses	19,790	**45,451**
Ordinary profit (loss)	114,964	**(30,487)**
Extraordinary Income		
Gain on sale of non-current assets (Note 3 (e))	5,124	**7,126**
Gain on receipt of donated non-current assets (Note 3 (f))	1,329	**—**
Gain on sale of investment securities	631	**17**
Gain on step acquisitions(Note 3 (g))	—	**12,422**
Gain on change in equity	—	**261**
Gain on bargain purchase	182	**—**
Gain on sale of businesses (Note 3 (h))	5,725	**—**
Gain on reversal of share acquisition rights	—	**4**
Total extraordinary income	12,993	**19,833**
Extraordinary Losses		
Loss on sale and retirement of non-current assets (Note 3 (i))	588	**1,269**
Impairment losses (Note 3 (j))	22,703	**220,553**
Loss on valuation of investment securities	77	**138**
Loss on sale of investment securities	7	**—**
Loss on sale of shares of subsidiaries and associates	268	**—**
Business restructuring expenses (Note 3 (k))	—	**4,451**
Settlement payments (Note 3 (l))	2,763	**—**
Provision for loss on litigation (Note 3 (m))	11,747	**1,976**
Total extraordinary losses	38,156	**228,389**
Profit (loss) before income taxes	89,802	**(239,043)**
Income Taxes (Note 14)		
Current	17,230	**15,660**
Deferred	(1,184)	**6,950**
Total income taxes	16,045	**22,610**
Profit (Loss)	73,756	**(261,654)**
Loss attributable to non-controlling interests	(234)	**(814)**
Profit (loss) attributable to owners of parent	¥ 73,991	**¥ (260,840)**

The accompanying notes to consolidated financial statements are an integral part of these statements.

Consolidated Statements of Comprehensive Income

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Years Ended March 31, 2022 and 2023

	Yen (millions)	
	2022	**2023**
Profit (Loss)	¥ 73,756	**¥ (261,654)**
Other Comprehensive Income:		
Valuation difference on available-for-sale securities	3,546	**6,301**
Deferred gains or losses on hedges	675	**(1,345)**
Foreign currency translation adjustment	29,409	**14,868**
Remeasurements of defined benefit plans, net of tax	13,996	**(12,657)**
Share of other comprehensive income of entities accounted for using equity method	2,368	**(7,882)**
Total other comprehensive income (Note 4)	49,996	**(714)**
Comprehensive Income	¥ 123,752	**¥ (262,369)**
Comprehensive income attributable to:		
Owners of parent	¥ 122,440	**¥ (261,546)**
Non-controlling interests	1,312	**(822)**

The accompanying notes to consolidated financial statements are an integral part of these statements.

Consolidated Statements of Changes in Equity

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Years Ended March 31, 2022 and 2023

	Yen (millions)												
	Shareholders' equity					Accumulated other comprehensive income							
	Share capital	Capital surplus	Retained earnings (Note 5 (c))	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Share acquisition rights (Note 5 (b))	Non-controlling interests	Total net assets
Balance at beginning of the year ended March 31, 2022	¥ 5,000	¥ 109,126	¥ 289,551	¥ (14,053)	¥ 389,624	¥ 16,617	¥ 1,086	¥ (39,362)	¥ (17,617)	¥ (39,275)	¥ 297	¥ 13,493	¥ 364,139
Changes during period													
Dividends of surplus			(18,324)		(18,324)								(18,324)
Profit attributable to owners of parent			73,991		73,991								73,991
Change in ownership interest of parent due to transactions with non-controlling interests		(216)			(216)								(216)
Purchase of treasury shares				(8)	(8)								(8)
Disposal of treasury shares		(286)		314	28								28
Net changes in items other than shareholders' equity						3,551	748	30,277	13,872	48,449	7	1,202	49,659
Total changes during period	—	(503)	55,667	306	55,470	3,551	748	30,277	13,872	48,449	7	1,202	105,129
Balance at end of the year ended March 31, 2022	¥ 5,000	¥ 108,623	¥ 345,218	¥ (13,747)	¥ 445,094	¥ 20,169	¥ 1,835	¥ (9,085)	¥ (3,745)	¥ 9,173	¥ 304	¥ 14,696	¥ 469,269

	Yen (millions)												
	Shareholders' equity					Accumulated other comprehensive income							
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Share acquisition rights (Note 5 (b))	Non-controlling interests	Total net assets
Balance at beginning of the year ended March 31, 2023	¥ 5,000	¥ 108,623	¥ 345,218	¥ (13,747)	¥ 445,094	¥ 20,169	¥ 1,835	¥ (9,085)	¥ (3,745)	¥ 9,173	¥ 304	¥ 14,696	¥ 469,269
Cumulative effects of changes in accounting policies			**(143)**		**(143)**								**(143)**
Restated balance	**5,000**	**108,623**	**345,075**	**(13,747)**	**444,951**	**20,169**	**1,835**	**(9,085)**	**(3,745)**	**9,173**	**304**	**14,696**	**469,126**
Changes during period													
Dividends of surplus			**(24,432)**		**(24,432)**								**(24,432)**
Loss attributable to owners of parent			**(260,840)**		**(260,840)**								**(260,840)**
Increase by share exchanges		**40,337**			**40,337**								**40,337**
Change in ownership interest of parent due to transactions with non-controlling interests		**(31)**			**(31)**								**(31)**
Purchase of treasury shares				**(2)**	**(2)**								**(2)**
Net changes in items other than shareholders' equity						**6,300**	**(1,359)**	**6,818**	**(12,466)**	**(706)**	**(11)**	**(1,077)**	**(1,795)**
Total changes during period	**—**	**40,306**	**(285,273)**	**(2)**	**(244,968)**	**6,300**	**(1,359)**	**6,818**	**(12,466)**	**(706)**	**(11)**	**(1,077)**	**(246,763)**
Balance at end of the year ended March 31, 2023	**¥ 5,000**	**¥ 148,929**	**¥ 59,802**	**¥ (13,749)**	**¥ 199,982**	**¥ 26,469**	**¥ 475**	**¥ (2,266)**	**¥ (16,211)**	**¥ 8,467**	**¥ 293**	**¥ 13,618**	**¥ 222,362**

Consolidated Statements of Cash Flows

Sharp Corporation and Consolidated Subsidiaries for the Fiscal Years Ended March 31, 2022 and 2023

	Yen (millions)	
	2022	**2023**
Cash Flows from Operating Activities:		
Profit (loss) before income taxes	¥ 89,802	**¥ (239,043)**
Depreciation	72,397	**89,799**
Interest and dividend income	(4,126)	**(4,214)**
Interest expenses	4,448	**9,296**
Share of loss (profit) of entities accounted for using equity method	(3,630)	**20,401**
Investment expenses (income)	(9,263)	**(6,907)**
Loss (gain) on sale and retirement of non-current assets	(4,535)	**(5,857)**
Gain on receipt of donated non-current assets	(1,329)	**—**
Impairment losses	22,703	**220,553**
Loss (gain) on valuation of investment securities	77	**138**
Loss (gain) on sale of investment securities	(623)	**(17)**
Loss (gain) on step acquisitions	—	**(12,422)**
Loss (gain) on change in equity	—	**(261)**
Gain on reversal of share acquisition rights	—	**(4)**
Loss (gain) on sale of businesses	(5,725)	**—**
Business restructuring expenses	—	**4,451**
Settlement payments	2,763	**—**
Provision for loss on litigation	11,747	**1,976**
Decrease (increase) in trade receivables and contract assets	(6,873)	**41,579**
Decrease (increase) in accounts receivable — other	(5,362)	**2,207**
Decrease (increase) in inventories	(21,466)	**45,354**
Increase (decrease) in trade payables	6,100	**(82,201)**
Other, net	(45,324)	**(44,484)**
Subtotal	101,778	**40,343**
Interest and dividends received	8,001	**8,078**
Interest paid	(4,453)	**(8,918)**
Income taxes (paid) refund	(27,425)	**(13,946)**
Payments for business restructuring	—	**(998)**
Settlement paid	(2,742)	**(9,813)**
Net cash provided by (used in) operating activities	75,157	**14,746**

	Yen (millions)	
	2022	**2023**
Cash Flows from Investing Activities:		
Payments into time deposits	(133,685)	**(98,943)**
Proceeds from withdrawal of time deposits	135,143	**91,739**
Purchase of property, plant and equipment	(47,590)	**(43,565)**
Proceeds from sale of property, plant and equipment	9,216	**9,828**
Purchase of intangible assets	(15,483)	**(13,449)**
Purchase of investment securities	(10,003)	**(2,472)**
Proceeds from sale of investment securities	2,440	**191**
Proceeds from sale of businesses (Note 6 (b))	4,267	**619**
Other, net	24,246	**15,083**
Net cash provided by (used in) investing activities	(31,448)	**(40,967)**
Cash Flows from Financing Activities:		
Net increase (decrease) in short-term borrowings	(102,493)	**25,854**
Proceeds from long-term borrowings	15,648	**1**
Repayments of long-term borrowings	(14,513)	**(10,908)**
Purchase of shares of subsidiaries not resulting in change in scope of consolidation	(216)	**—**
Dividends paid	(18,312)	**(24,425)**
Other, net	(4,403)	**(9,006)**
Net cash provided by (used in) financing activities	(124,291)	**(18,483)**
Effect of Exchange Rate Change on Cash and Cash Equivalents	27,148	**9,859**
Net Increase (Decrease) in Cash and Cash Equivalents	(53,433)	**(34,845)**
Cash and Cash Equivalents at Beginning of Period	292,792	**239,359**
Increase in Cash and Cash Equivalents Resulting from Share Exchanges (Note 6(c))	—	**2,099**
Cash and Cash Equivalents at End of Period (Note 6 (a))	¥ 239,359	**¥ 206,612**

The accompanying notes to consolidated financial statements are an integral part of these statements.

Notes to Consolidated Financial Statements

Sharp Corporation and Consolidated Subsidiaries

1. Summary of Significant Accounting and Reporting Policies

(a) Basis of presenting consolidated financial statements

The accompanying consolidated financial statements of Sharp Corporation ("the Company") have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards ("IFRS").

The financial statements of the Company's overseas consolidated subsidiaries for consolidation purposes have been prepared in conformity with IFRS or generally accepted accounting principles in the United States of America ("US GAAP"), with adjustments for the specified five items where applicable according to Practical Issues Task Force No. 18 "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements".

The accompanying consolidated financial statements have been translated into English (with no reclassifications) from the consolidated financial statements of the Company prepared in accordance with Japanese GAAP and filed with the appropriate local Finance Bureau of the Ministry of Finance as required by the Japanese Financial Instruments and Exchange Act.

In preparing the accompanying consolidated financial statements and notes, Japanese yen figures less than one million yen have been rounded down to the nearest million yen. Therefore, total or subtotal amounts shown in the accompanying consolidated financial statements and notes thereto are not necessarily equal to the sum of individually presented amounts.

(b) Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and 118 companies over which the Company has power of control through the holding of majority voting rights or with the existence of other certain conditions. Investments in 1 nonconsolidated subsidiary and 16 affiliates on which the Company has significant influence regarding their operating and financial policies are accounted for using equity method.

Changes in the consolidated subsidiaries for the fiscal year ended March 31, 2023 were as follows:

(Included in scope)

Sakai Display Products Corporation

And 1 other

(Excluded from scope)

Midshire Business Systems Ltd.

Change in the nonconsolidated subsidiaries and affiliates accounted for using equity method for the fiscal year ended March 31, 2023 was as follows:

(Excluded from scope)

Lacamas Life Sciences, Inc.

Sharp India Ltd. is the main nonconsolidated subsidiary.

Sharp Tokusen Industry Co., Ltd. is the main nonconsolidated subsidiary not accounted for using equity method.

(c) Investment securities

Other securities

Securities other than shares with no available market prices

Valued at fair market value (All valuation differences are directly charged or credited to net assets, with the cost of sales calculated primarily using the periodic average method.)

Shares with no available market prices

Valued primarily by the periodic average method.

Regarding the investments in partnerships, the Company and its consolidated subsidiaries recognize their share in the profits or losses resulting from the operations of the partnerships as non-operating income or expenses, and reflect such income or expenses to the balance of investment securities.

(d) Derivative financial instruments

Derivative financial instruments are stated at fair value.

(e) Inventories

Inventories held by the Company and its domestic consolidated subsidiaries are primarily measured at moving average cost. Inventories are written down when their profitability decreases. Inventories held by overseas consolidated subsidiaries are measured at the lower of moving average cost and net realizable value.

(f) Depreciation and amortization

For the Company and its domestic consolidated subsidiaries, depreciation of property, plant and equipment other than leased assets and right-of-use assets is computed by the declining-balance method.

Meanwhile, machinery and equipment at the LCD plants in Mie and Kameyama and a part of the Sakai Plant are depreciated by the straight-line method.

Buildings (excluding facilities attached to buildings) acquired on or after April 1, 1998, and facilities attached to buildings and structures acquired on or after April 1, 2016 are depreciated by the straight-line method.

Property, plant and equipment at overseas consolidated subsidiaries are depreciated by the straight-line method.

Amortization of intangible assets (excluding leased assets) is computed by the straight-line method.

Software used in-house is amortized by the straight-line method over the estimated useful life of principally 5 years, and software embedded in products is amortized over the forecasted sales quantity.

Depreciation of leased assets related to finance lease transactions that transfer ownership is computed by the same method as applied to non-current assets owned by the Company.

Depreciation of leased assets related to finance lease transactions that do not transfer ownership is computed by the straight-line method with the lease period as the useful life and the residual value as zero.

Right-of-use assets are depreciated by the straight-line method over the shorter of the useful life of the asset or the term of the lease.

(g) Allowance for doubtful accounts

The Company and its consolidated subsidiaries accrue possible credit losses regarding monetary claims and other receivables.

The estimated amounts of allowance for general receivables are primarily determined based on the historical bad debt ratio. The estimated amounts of allowance for particular receivables, including those from debtors at risk of bankruptcy are consider of recoverable amounts on a case-by-case basis.

(h) Provision for bonuses

The Company and its consolidated subsidiaries accrue estimated amounts of employees' bonuses based on the estimated amounts to be paid in the subsequent period which relate to their performance in the current period.

(i) Provision for product warranties

The Company and its consolidated subsidiaries accrue the estimated amounts of future warranty based on the past experiences, so as to prepare for possible expenses related to after-sales service within the warranty period in respect of sales recorded prior to the balance sheet date.

(j) Provision for loss from litigation

The Company and its consolidated subsidiaries accrue the estimated amount deemed to be necessary for possible future losses from lawsuits.

(k) Provision for sales promotion expenses

The Company and its consolidated subsidiaries accrue sales promotion expenses based on estimated amounts to be paid to agencies and dealers in the subsequent period in respect of revenue recorded by the balance sheet date.

(l) Provision for restructuring

The Company and its consolidated subsidiaries accrue the estimated amounts of restructuring to prepare for future expenses related to structural reform.

(m) Defined benefit pension plan

The estimated amount of defined benefit pension plans to be paid at future retirement dates is allocated to each service year based on the plan's benefit formula.

Past service costs are amortized primarily by the straight-line method over the average remaining service period of employees (9 years) commencing from the current period. Actuarial gains and losses are primarily amortized by the straight-line method over the average service period of employees (9 years) commencing from the period following that in which the gain or loss was incurred.

(n) Major recognition criteria for revenues and expenses

The Group recognizes revenue based on the following five-step approach.

Step 1: Identify a contract with customer

Step 2: Identify the performance obligations in the contract

Step 3: Determine the transaction price

Step 4: Allocate the transaction price to the performance obligations in the contract

Step 5: Recognize revenue when the Group satisfies a performance obligation

Details of the main performance obligations related to revenue from contracts with customers in the Group's key businesses and the point of time when such performance obligations are typically satisfied (the point of time when revenues are usually recognized) are as follows.

The Group manufactures and sells telecommunications equipment, electrical equipment and electronic application equipment, and electronic components. In principle, revenue from these transactions is recognized at the point in time when the customer obtains control of products delivered by the Group as the performance obligation is deemed to have been satisfied by then. At that point in time, the legal title to the products, physical possession, and significant risks and rewards of ownership of the products are transferred to the customer, and the Group is entitled to receive payment for the transaction. For some domestic sales, revenue is recognized upon shipment if the period of time from the shipment to the completion of the transfer of control of the products to the customer is considered to be normal.

The Group is also engaged in contracted construction in addition to maintenance and warranty services that are mainly related to products. In these transactions, the Group transfers goods or services to customers over time to satisfy performance obligations. Thus, in principle, revenue is recognized according to the degree of progress towards complete satisfaction or over time for the service period.

Revenue is measured in the amount of consideration that the Group expects to be entitled in return for the transfer of products or services to the customers (hereinafter, "transaction price"). In determining a transaction price, if the consideration promised with the customer includes a variable component

(hereinafter, "variable consideration"), the transaction price is estimated by subtracting any variable considerations. The amount of a variable consideration is included in the transaction price only to the extent that it is highly probable that the subsequent resolution of uncertainty concerning the amount of the variable consideration will not result in a significant reversal in the cumulative revenue recognized until then.

When multiple performance obligations, such as product and warranty services, are identifiable in a contract, a transaction price is allocated to each performance obligation primarily based on the ratio of observable stand-alone selling prices.

If a product warranty provides a customer with a service beyond the assurance that the product complies with agreed-upon specifications, it is treated as a separate performance obligation. A portion of the transaction price is allocated to that performance obligation and revenue is recognized over the extended warranty period.

The Group determines whether it acts as a principal or an agent in a transaction based on whether the Group controls the promised product or service before transferring to the customer. When the Group is deemed to be involved as an agent, the Group recognizes revenue at the net amount of consideration that the Group retains after paying the other party the consideration received in exchange for goods or services to be provided by that party.

Considerations for transactions related to the sale of products, etc., contracted construction, and the provision of warranty or other services is usually received within approximately one year from the time each performance obligation is satisfied. The Group applies exemption rule to these contracts, and no adjustments for financing components have been made.

(o) Hedge accounting

The Company and some of its consolidated subsidiaries use derivative financial instruments, including foreign exchange forward contracts in order to hedge the risk exposure arising from fluctuations in foreign currency exchange rates associated with assets and liabilities denominated in foreign currencies. Furthermore, the Company uses interest rate swaps in order to hedge the interest rate fluctuation risks associated with some borrowings from financial institutions.

All derivative financial instruments are stated at fair value and recorded on the balance sheets. The deferred method is used for recognizing gains and losses on hedging instruments and the hedged items. When foreign exchange forward contracts meet certain conditions, the hedged items are stated at the forward exchange contract rates.

For borrowings from financial institutions, interest rate swaps are used to hedge the risks of interest rate fluctuations.

Derivative financial instruments are used based on internal policies and procedures related to risk management. The risks of fluctuations in foreign currency exchange rates and variable interest rates have been assumed to be completely hedged over the period of hedging contracts as the major conditions of the hedging instruments and the hedged items are consistent. Accordingly, an evaluation of the effectiveness of the hedging contracts is not required.

(p) Method and period for amortization of goodwill

Goodwill is amortized by the straight-line method over the expected life. Goodwill recorded in the consolidated subsidiaries in the U.S.A. is amortized by the straight-line method over 10 years.

However, if the amount of goodwill is insignificant, the entire amount is amortized during the fiscal year in which the goodwill arises.

(q) Cash and cash equivalents in the consolidated statements of cash flows

Cash and cash equivalents in the consolidated statements of cash flows comprise cash on hand, demand deposits in banks, and highly liquid short-term investments with original maturities of three months or less for which the risks of fluctuations in value are not considered to be significant.

(r) Major accounting estimates

(1) Valuation of inventories

i) Amount recorded in the consolidated financial statements as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Inventories	¥ 310,283	**¥ 299,307**

ii) Information related to the contents of major accounting estimates for identified items

The Group reduces the book value of inventories when the net realizable value falls below the book value. In addition, some inventories deemed slow-moving for more than a certain period of time are devalued regularly over time, assuming that it becomes less possible for those inventories to be sold. Moreover, the book value of some inventories is also devalued individually when they are deemed difficult to sell.

However, it may become necessary to record further devaluation in the consolidated financial statements in the next fiscal year or onward if the Group faces disadvantageous situations such as price declines resulting from unpredictable environment changes in the future.

(2) Impairment losses on non-current assets

i) Amount recorded in the consolidated financial statements as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Property, plant and equipment	¥ 418,260	**¥ 389,257**
Intangible assets	42,285	**35,845**
Investment securities	171,392	**216,207**

ii) Information related to the contents of major accounting estimates for identified items

The Group conducts an impairment test of an asset or asset group, when there is an indication of impairment such as continued operating loss or negative cash flow from operating activities, and if the book value exceeds the higher of its value in use and its net realizable value, the Company recognizes impairment loss for the excess. The future business plan, which forms the basis for calculating the value in use, is established in consideration of information available at the time of financial closing, such as market prices and demand outlook provided by external information research companies. Additionally, the net realizable value is determined by reasonable approaches such as asset valuation by a third party.

However, the Group may record additional impairment losses in the consolidated financial statements in the next fiscal year or thereafter, when the assumptions in the business plan, such as the market environments, change in the future.

Additionally, investment securities of ¥216,207 million recorded in the fiscal year ended March 31, 2023 include investments in equity-method affiliates of ¥88,772 million. If the equity-method affiliates recognize impairment losses in the next fiscal year or thereafter, the Group may recognize the share of loss of entities accounted for using equity method in the consolidated financial statements.

(s) Changes in accounting policies

US GAAP ASC 842 "Leases"

The Group's overseas consolidated subsidiaries adopting US GAAP have applied ASC 842 "Leases" from the fiscal year ended March 31, 2023.

In applying this accounting standard, right-of-use assets and lease liabilities are recognized for leases as lessee. However, no right-of-use asset or lease liability is recognized for short-term leases. As a permitted transitional measure at the adoption of this standard, the cumulative effect of the adoption is recognized at the date of initial application.

As the result, the Group recorded increases of ¥6,032 million in "Property, plant and equipment," ¥1,452 million in "Other" under "Current liabilities," and ¥6,231 million in "Other" under "Non-current liabilities" as of March 31, 2023.

The impact of this change on consolidated earnings for the fiscal year ended March 31, 2023 is minimal.

(t) Unapplied accounting standard

The accounting standards issued by March 31, 2023 but not yet applied as of March 31, 2023 were as follows.

The monetary impact amounts arising through the application of this standard are under evaluation.

The Company and its domestic subsidiaries

Name of the standards		Description of the standards	Planned adoption period
ASBJ Statement No. 27 (October 28, 2022)	Accounting Standard for Current Income Taxes	Revision of classification of tax expenses (taxation on other comprehensive income) Revision of the tax effect on the sale of subsidiary shares, etc. (shares of subsidiaries or affiliates) when applying the group tax relief system	From the year ended March 31, 2025
ASBJ Statement No. 25 (October 28, 2022)	Accounting Standard for Presentation of Comprehensive Income		
ASBJ Guidance No. 28 (October 28, 2022)	Guidance on Accounting Standard for Tax Effect Accounting		

(u) Changes in presentation method

(Consolidated balance sheets)

(1) "Goodwill," which was included in "Other" under "Intangible assets" in the fiscal year ended March 31, 2022, has been separately presented in the fiscal year ended March 31, 2023 since its materiality has increased in the consolidated balance sheets. In order to reflect this change in presentation method, the consolidated financial statements for the fiscal year ended March 31, 2022 have been reclassified.

As a result, ¥16,330 million included in "Other" under "Intangible assets" in the consolidated balance sheets as of March 31 2022, has been reclassified as ¥8,439 million in "Goodwill" and ¥7,890 million in "Other."

(2) "Lease liabilities," which was included in "Other" under "Current liabilities" in the fiscal year ended March 31, 2022, has been separately presented in the fiscal year ended March 31, 2023 since its materiality has increased in the consolidated balance sheets. In order to reflect this change in presentation method, the consolidated financial statements for the fiscal year ended March 31, 2022 have been reclassified.

As a result, ¥164,817 million included in "Other" under "Current liabilities" in the consolidated balance sheets as of March 31 2022, has been reclassified as ¥2,283 million in "Lease liabilities" and ¥162,534 million in "Other."

(Consolidated statements of operations)
"Rental expenses on non-current assets"(¥3,471 million for the fiscal year ended March 31, 2023) and "Inactive assets expenses" (¥4,221 million for the fiscal year ended March 31, 2023), which were separately presented in the fiscal year ended March 31, 2022, are included in "Other" under "Non-operating expenses" since their amounts decreased to less than 10/100 of the total non-operating expenses. The consolidated financial statements for the fiscal year ended March 31, 2022 have been reclassified to reflect this change in presentation method.

As a result, in the consolidated statements of operations for the fiscal year ended March 31, 2022, "Other" under "Non-operating expenses" which was ¥7,818 million, now includes ¥2,323 million of "Rental expenses on non-current assets" and ¥5,199 million of "Inactive assets expenses," totaling ¥15,342 million.

(Consolidated statements of cash flows)
(1) "Loss (gain) on sale of shares of subsidiaries and associates," "Gain on bargain purchase," and "Increase (decrease) in accrued expenses," which were separately presented under "Cash flows from operating activities" in the fiscal year ended March 31, 2022, are included in "Other, net" since their materiality has diminished. The consolidated financial statements for the fiscal year ended March 31, 2022 have been reclassified to reflect this change in presentation method.

As a result, ¥268 million in "Loss (gain) on sale of shares of subsidiaries and associates," ¥(182) million in "Gain on bargain purchase," ¥(2,590) million in "Increase (decrease) in accrued expenses," and ¥(42,819) million in "Other, net" have been reclassified as ¥(45,324) million in "Other, net."

(2) "Proceeds from long-term borrowings" and "Repayments of long-term borrowings," which were included in "Other, net" under "Cash flows from financing activities" in the fiscal year ended March 31, 2022, are separately presented since their materiality has increased. In order to reflect this change in presentation method, the consolidated financial statements for the fiscal year ended March 31, 2022 have been reclassified.

As a result, ¥(3,268) million in "Other, net," which was presented under "Cash flows from financing activities" has been reclassified as ¥15,648 million in "Proceeds from long-term borrowings," ¥(14,513) million in "Repayments of long-term borrowings," and ¥(4,403) million in "Other, net."

2. Notes to Consolidated Balance Sheets

(a) Investment in nonconsolidated subsidiaries and affiliates

Investment in nonconsolidated subsidiaries and affiliates as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Investment securities	¥ 55,135	**¥ 89,855**

(b) Inventories

Inventories as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Finished goods	¥ 165,625	**¥ 171,835**
Work in process	92,513	**76,908**
Raw materials and supplies	52,144	**50,564**
	¥ 310,283	**¥ 299,307**

(c) Collateral assets and liabilities secured by collateral

Collateral assets and liabilities secured by collateral as of March 31, 2022 and 2023 were as follows:

(1) Assets pledged as collateral

	Yen (millions)	
	2022	**2023**
Cash and deposits	¥ 43,830	**¥ 50,023**
Notes and accounts receivable - trade and contract assets	63,245	**69,283**
Inventories	75,732	**81,591**
Other (Current assets)	52,340	**3,848**
Buildings and structures	165,087	**159,247**
Machinery, equipment and vehicles	11,440	**12,019**
Tools, furniture and fixtures	1,620	**1,237**
Land	68,632	**60,852**
Construction in progress	26	**—**
Investment securities	36,810	**39,616**
Other (Investments and other assets)	35,859	**639**
	¥ 554,626	**¥ 478,361**

(2) Liabilities secured by collateral

	Yen (millions)	
	2022	**2023**
Short-term borrowings	¥ 928	**¥ 46,430**
Other (Current liabilities)	32,555	**27,587**
Long-term borrowings	426,722	**426,693**
	¥ 460,207	**¥ 500,711**

In addition, certain shares of consolidated subsidiaries, which were subject to elimination through inter-company transactions, were pledged as collateral of long-term borrowings as of March 31, 2022 and 2023.

(d) Contingent liabilities

(1) Guarantee liabilities

	Yen (millions)	
	2022	**2023**
Loans guaranteed for employees	¥ 3,866	**¥ 3,073**
Guarantee for accounts payable		
Sharp FIT Automotive Technology Co., Ltd.	14	**—**
Guarantee for borrowing of invested companies		
Sermsang Power Corporation Public Company Limited	182	**198**
	¥ 4,063	**¥ 3,272**

(2) Endorsed trade notes receivable

	Yen (millions)	
	2022	**2023**
Endorsed trade notes receivable	¥ 1,018	**¥ 191**

(3) Matters related to long-term electricity and other supply contracts

The Company entered into long-term contracts with several suppliers with respect to electricity and other inputs at the Sakai plant. The total amounts of future minimum payments under such contracts as of March 31, 2022 and 2023 were ¥8,615 million (longest remaining term was 7 years) and ¥4,891 million (longest remaining term was 6 years), respectively. No contract can be terminated before expiration.

(e) Investment commitment

The Company entered into contract to participate in the SoftBank Vision Fund, a private fund established by SoftBank Group Corp., in May 2017. Total amount of investment commitment is USD 1 billion. The balance of remaining committed contribution as of March 31, 2022 and 2023 were as follows.

Conversion to yen is calculated based on market exchange rate as of closing dates.

	Yen (millions)	
	2022	**2023**
Total amount of investment commitment	¥ 121,410	**¥ 132,540**
Contribution made	105,983	**115,755**
Remaining committed contribution	¥ 15,426	**¥ 16,784**

(f) Receivables arising from contracts with customers, contract assets and contract liabilities

	Yen (millions)	
	2022	**2023**
Receivables arising from contracts with customers	¥ 477,269	**¥ 433,106**
Notes receivable	6,599	**5,123**
Accounts receivable	470,670	**427,983**
Contract assets	¥ 9,890	**¥ 4,951**
Contract liabilities	76,682	**86,838**

On the consolidated balance sheets, receivables arising from contracts with customers and contract assets are included in "Notes and accounts receivable - trade and contract assets," and contract liabilities are included in "Other" under "Current liabilities."

3. Notes to Consolidated Statements of Operations

(a) Revenue from contracts with customers

Regarding net sales, revenue from contracts with customers is not presented separately from other revenues. The amount of revenue arising from contracts with customers is presented in "(a) Information on disaggregated revenue from contracts with customers" under "16. Revenue recognition."

(b) Inventory valuation loss

Ending balances of inventories are presented in amounts after deducting valuation losses resulted from a decline in profitability.

Net inventory valuation losses (after offsetting the reversal amount) included in the cost of sales for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Cost of sales	¥ (19,401)	**¥ 3,204**

(c) Selling, general and administrative expenses

Major components of selling, general and administrative expenses for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Salaries and allowances	¥ 117,715	**¥ 121,538**
Provision for bonuses	9,717	**8,632**
Retirement benefit expenses	8,223	**3,188**
Transportation and storage costs	44,545	**44,606**
Research and development expenses	21,708	**17,013**
Provision for bonuses	757	**750**

(Change in presentation method)

"Outsourcing expenses" has been excluded from major components since it decreased to less than 10/100 of selling, general and administrative expenses.

(d) Research and development expenses

Research and development expenses included in general and administrative expenses and cost of manufacturing were ¥86,290 million for the fiscal year ended March 31, 2022 and ¥78,712 million for the fiscal year ended March 31, 2023.

(e) Gain on sale of non-current assets

Major components of gain on sale of non-current assets for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Buildings and structures	¥ 364	**¥ 45**
Machinery, equipment and vehicles	570	**805**
Tools, furniture and fixtures	173	**308**
Land	4,013	**5,934**
Other	2	**33**
	¥ 5,124	**¥ 7,126**

(f) Gain on receipt of donated non-current assets

Fiscal year ended March 31, 2022

Of the gain on receipt of donated non-current assets, ¥1,245 million was the free of charge receipt of utility equipment at the Hakusan Plant.

(g) Gain on step acquisitions

Fiscal year ended March 31, 2023

Sakai Display Products Corporation, which was previously an equity-method affiliate, has been made a wholly owned subsidiary of the Group through a share exchange and included in the scope of consolidation. As a result, gain on step acquisitions was recorded.

(h) Gain on sale of businesses

Fiscal year ended March 31, 2022

Kantatsu Corporation, a consolidated subsidiary of the Company (hereinafter, "Kantatsu"), transferred all of its equity in its subsidiary Lianyungang Kantatsu Fine Technology Co., Ltd. and related assets of Kantatsu to Liaoning Zhonglan Electronic Technology Co., Ltd. As a result, gain on sale of businesses was recorded.

(i) Loss on sale and retirement of non-current assets

Major components of loss on sale and retirement of non-current assets for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Loss on sale:		
Buildings and structures	¥ 0	**¥ 166**
Machinery, equipment and vehicles	28	**1**
Tools, furniture and fixtures	1	**2**
Land	12	**—**
Other	1	**—**
	¥ 44	**¥ 170**
Loss on retirement:		
Buildings and structures	¥ 239	**¥ 300**
Machinery, equipment and vehicles	235	**583**
Tools, furniture and fixtures	27	**28**
Software	35	**184**
Other	5	**1**
	¥ 543	**¥ 1,098**
Total:		
Buildings and structures	¥ 239	**¥ 467**
Machinery, equipment and vehicles	264	**585**
Tools, furniture and fixtures	28	**31**
Land	12	**—**
Software	35	**184**
Other	7	**1**
	¥ 588	**¥ 1,269**

(j) Impairment losses

With regards to accounting for impairment of assets, the Company and its consolidated subsidiaries identify cash generating units through consideration of business characteristics and business operations. Idle assets are identified as separate cash generating units.

Fiscal year ended March 31, 2022

A business in Osaka, where cash generating unit is identified on a consolidated basis, recognized an impairment loss of ¥14,791 million for the fiscal year ended March 31, 2022, with the book value reduced to the recoverable value, for the OLED production facilities at the Sakai Plant owned by the Company and Sharp Display Technology Corporation, a consolidated subsidiary of the Company. Earnings in this business operated by Sharp Display Technology Corporation have so far not been significantly below the initial plan formulated at the launch of the business but are expected to fall much below the initial plan in the next fiscal year and beyond as competition intensifies. Details were ¥3,193 million for buildings and structures and ¥11,598 million for machinery, equipment and vehicles. The estimated recoverable amount was measured by its value in use, and important assumptions included future selling prices, sales volume, unit variable cost, fixed cost, discount rate, etc. The discount rate was 7.8% (before tax).

Some consolidated subsidiaries in China recognized an impairment loss of ¥5,184 million for the Electronic Device unit, for the fiscal year ended March 31, 2022, with the book value reduced to the recoverable value, because the investment amount became unrecoverable due to decreasing profitability. Details were ¥2,671 million for machinery, equipment and vehicles, ¥2,030 million for tools, furniture and fixtures, and ¥482 million for other. The estimated recoverable amount was evaluated as the net realizable value.

Some consolidated subsidiaries in Japan recognized an impairment loss of ¥2,728 million for the fiscal year ended March 31, 2022, with the book value reduced to the recoverable value, because their idle assets are no longer expected to be used in the future. Details were ¥2,669 million for machinery, equipment and vehicles, and ¥58 million for other. The estimated recoverable amount was evaluated at zero as the net realizable value.

Fiscal year ended March 31, 2023

The Company and some of its consolidated subsidiaries in Japan and the U.S.A. recognized an impairment loss of ¥3,729 million for the 8K Ecosystem unit's business assets for the fiscal year ended March 31, 2023, with the book value reduced to the recoverable value, because the investment amount became unrecoverable due to decreasing profitability. Details were ¥421 million for buildings and structures, ¥156 million for tools, furniture and fixtures, ¥0 million for construction in progress, ¥206 million for software, ¥745 million for goodwill, and ¥2,198 million for other. The estimated recoverable amount was evaluated at a net realizable value of zero.

Some consolidated subsidiaries in Japan and Europe recognized an impairment loss of ¥456 million for the ICT unit's business assets for the fiscal year ended March 31, 2023, with the book value reduced to the recoverable value, because they were no longer expected to be used in the future due to the restructuring of the ICT business. Details were ¥5 million for buildings and structures, ¥2 million for tools, furniture and fixtures, ¥116 million for software, and ¥330 million for other. The estimated recoverable amount was

evaluated at a net realizable value of zero.

LCD-related business assets of the Display Device unit in Osaka, where the cash generating unit is identified on a consolidated basis, include an LCD panel production factory, machinery and goodwill resulted from the acquisition of Sakai Display Products Corporation (hereinafter, "SDP"), a consolidated subsidiary of the Company. In the fiscal year ended March 31, 2023, the Company made SDP a wholly owned subsidiary for the purpose of expanding the display business through stable procurement of large-size LCD panels and with a shift to medium and small-size panels. However, prices of not only large-size LCD panels, which SDP produces, but also medium and small-size panels have fallen significantly, and SDP's future cash flow was expected to fall far short of the original plan. For this reason, an impairment loss of ¥188,487 million was recognized under extraordinary losses for such non-current assets, with the book value reduced to the recoverable value. Details were ¥71,884 million for buildings and structures, ¥29,295 million for machinery, equipment and vehicles, ¥1,654 million for tools, furniture and fixtures, ¥6,748 million for land, ¥2,146 million for construction in progress, ¥51 million for software, ¥64,047 million for goodwill, and ¥12,658 million for other. The estimated recoverable amount for business assets other than goodwill was evaluated at ¥7,732 million based on the appraisal results, while goodwill was evaluated at zero as the net recoverable value.

OLED-related business assets of the Display Device unit in Osaka, where the cash generating unit is identified on a consolidated basis, are production facilities and others. Amid harsher-than-expected competition in the OLED business, the investment amount became unrecoverable due to decreasing profitability. For this reason, an impairment loss of ¥21,291 million was recognized under extraordinary losses for such non-current assets, with the book value reduced to the recoverable value. Details were ¥5,440 million for buildings and structures, ¥15,076 million for machinery, equipment and vehicles, ¥177 million for tools, furniture and fixtures, ¥329 million for construction in progress, and ¥266 million for software. The estimated recoverable amount was evaluated at a net realizable value of ¥1,228 million.

Some consolidated subsidiaries in Japan and China recognized an impairment loss of ¥612 million for the Electronic Device unit's business assets, for the fiscal year ended March 31, 2023, with the book value reduced to the recoverable value, because the investment amount became unrecoverable due to decreasing profitability. Details were ¥153 million for buildings and structures, ¥8 million for machinery, equipment and vehicles, ¥118 million for tools, furniture and fixtures, ¥0 million for land, ¥5 million for software, and ¥325 million for other. The estimated recoverable amount was evaluated as the net realizable value.

Some consolidated subsidiaries recognized an impairment loss of ¥5,976 million for the fiscal year ended March 31, 2023, with the book value reduced to the recoverable value, because some idle assets in Japan, China and others are no longer expected to be used in the future. Details were ¥4,847 million for machinery, equipment and vehicles, ¥30 million for tools, furniture and fixtures, and ¥1,098 million for other. The estimated recoverable amount was evaluated at a net realizable value of zero.

(k) Business restructuring expenses

Fiscal year ended March 31, 2023

Business restructuring expenses include severance charges associated with the ICT business restructuring in Europe and the U.S.A.

(l) Settlement payments

Fiscal year ended March 31, 2022

A lawsuit was filed by Foxconn Interconnect Technology Singapore Pte. Ltd. (hereinafter, "FIT") against the Company, with respect to the Company's transfer of shares of Kantatsu Corporation, a consolidated subsidiary of the Company, to FIT. An agreement was reached and concluded that the Company should pay the settlement amount to FIT among other terms.

(m) Provision for loss on litigation

Fiscal year ended March 31, 2022

Provision for loss on litigation was recorded regarding the case that LG Display Co., Ltd. (hereinafter, "LGD") had sought arbitration from the Singapore International Arbitration Centre. The arbitration result was that the Company should pay damages and others to LGD.

Fiscal year ended March 31, 2023

The provision for loss on litigation that had been recorded in the fiscal year ended March 31, 2022 was revaluated in accordance with exchange rate fluctuations in the fiscal year ended March 31, 2023.

4. Notes to Consolidated Statements of Comprehensive Income

Summary of amounts of reclassification adjustments and their tax effects to other comprehensive income as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Valuation difference on available-for-sale securities		
Amount arising during the year	¥ 5,107	**¥ 9,169**
Reclassification adjustment	—	**1**
Before tax effect	5,107	**9,170**
Tax effect	(1,561)	**(2,869)**
Valuation difference on available-for-sale securities	¥ 3,546	**¥ 6,301**
Deferred gains or losses on hedges		
Amount arising during the year	¥ 1,730	**¥ (2,270)**
Reclassification adjustment	(1,079)	**(527)**
Before tax effect	650	**(2,798)**
Tax effect	25	**1,452**
Deferred gains or losses on hedges	¥ 675	**¥ (1,345)**
Foreign currency translation adjustment		
Amount arising during the year	¥ 29,378	**¥ 14,868**
Reclassification adjustment	30	**—**
Foreign currency translation adjustment	¥ 29,409	**¥ 14,868**
Remeasurements of defined benefit plans, net of tax		
Amount arising during the year	¥ 3,591	**¥ (15,412)**
Reclassification adjustment	12,409	**870**
Before tax effect	16,000	**(14,541)**
Tax effect	(2,004)	**1,884**
Remeasurements of defined benefit plans, net of tax	¥ 13,996	**¥ (12,657)**
Share of other comprehensive income of entities accounted for using equity method		
Amount arising during the year	¥ 2,616	**¥ (4,394)**
Reclassification adjustment	(248)	**(3,488)**
Share of other comprehensive income of entities accounted for using equity method	¥ 2,368	**¥ (7,882)**
Total other comprehensive income	¥ 49,996	**¥ (714)**

5. Notes to Consolidated Statements of Changes in Equity

(a) Class and total number of issued shares and treasury shares

Class and total number of issued shares and treasury shares for the fiscal years ended March 31, 2022 and 2023 were as follows:

Fiscal year ended March 31, 2022

	(Thousands of shares)			
	Number of shares as of March 31, 2021	Increase in number of shares	Decrease in number of shares	Number of shares as of March 31, 2022
Issued shares				
Common shares	611,952	—	—	611,952
Total	611,952	—	—	611,952
Treasury shares				
Common shares	1,151	5	25	1,131
Total	1,151	5	25	1,131

Notes: 1. The increase of 5 thousand shares of treasury shares consisted of an increase of 5 thousand shares due to the purchase of shares less than one trading unit.
2. The decrease of 25 thousand shares of treasury shares consisted of a decrease of 0 thousand shares due to the sale of shares less than one trading unit and a decrease of 25 thousand shares due to the disposition of treasury shares as restricted stock compensation.

Fiscal year ended March 31, 2023

	(Thousands of shares)			
	Number of shares as of March 31, 2022	Increase in number of shares	Decrease in number of shares	**Number of shares as of March 31, 2023**
Issued shares				
Common shares	611,952	38,453	—	**650,406**
Total	611,952	38,453	—	**650,406**
Treasury shares				
Common shares	1,131	2	—	**1,133**
Total	1,131	2	—	**1,133**

Notes: 1. The increase of 38,453 thousand shares of issued shares was due to the share exchange effective June 27, 2022, under which the Company became the wholly owning parent company and Sakai Display Products Corporation became the wholly owned subsidiary.
2. The increase of 2 thousand shares of treasury shares was due to the purchase of shares less than one trading unit.

(b) Share acquisition rights and treasury share acquisition rights

Share acquisition rights and treasury share acquisition rights for the fiscal years ended March 31, 2022 and 2023 were as follows:

Fiscal year ended March 31, 2022

			Number of shares underlying the share acquisition rights (Share)				
Classification	Description of share acquisition rights	Class of shares underlying the share acquisition rights	Number of shares as of March 31, 2021	Increase in number of shares	Decrease in number of shares	Number of shares as of March 31, 2022	Balance as of March 31, 2022 (Millions of yen)
The Company	Share acquisition rights as a stock option	—	—	—	—	—	296
Consolidated subsidiaries	—	—	—	—	—	—	8
Total		—	—	—	—	—	304

Fiscal year ended March 31, 2023

			Number of shares underlying the share acquisition rights (Share)				
Classification	Description of share acquisition rights	Class of shares underlying the share acquisition rights	Number of shares as of March 31, 2022	Increase in number of shares	Decrease in number of shares	**Number of shares as of March 31, 2023**	**Balance as of March 31, 2023 (Millions of yen)**
The Company	Share acquisition rights as a stock option	—	—	—	—	**—**	**293**
Total		—	—	—	—	**—**	**293**

(c) Dividends

Fiscal year ended March 31, 2022

(1) Dividends paid

Resolutions	Class of shares	Total dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors meeting on May 11, 2021	Common shares	18,324	30	March 31, 2021	June 7, 2021

(2) Dividends for which the record date belonged to the fiscal year ended March 31, 2022, with effective date falling in the fiscal year ended March 31, 2023 were as follows:

Resolutions	Class of shares	Source of dividends	Total dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors meeting on May 11, 2022	Common shares	Retained earnings	24,432	40	March 31, 2022	June 8, 2022

Fiscal year ended March 31, 2023

(1) Dividends paid

Resolutions	Class of shares	Total dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors meeting on May 11, 2022	Common shares	**24,432**	**40**	March 31, 2022	June 8, 2022

(2) Dividends for which the record date belonged to the fiscal year ended March 31, 2023, but the effective date falling in the fiscal year ended March 31, 2024: Not applicable

6. Notes to Consolidated Statements of Cash Flows

(a) Reconciliation of the balance of cash and cash equivalents at the end of period and accounting items on the consolidated balance sheets

	Yen (millions)	
	2022	**2023**
Cash and deposits	¥ 287,361	**¥ 262,058**
Time deposits with maturity over 3 months and others	(48,002)	**(55,445)**
Cash and cash equivalents	¥ 239,359	**¥ 206,612**

(b) Major components of assets and liabilities related to business transfer with cash and cash equivalents as consideration

Fiscal year ended March 31, 2022

Kantatsu Corporation, a consolidated subsidiary of the Company (hereinafter, "Kantatsu"), transferred all of its equity in its subsidiary Lianyungang Kantatsu Fine Technology Co., Ltd. and related assets of Kantatsu to Liaoning Zhonglan Electronic Technology Co., Ltd. The relationship among major components of assets and liabilities of the business transferred, sale price of the business and the related proceeds were as follows:

	Yen (millions)
Current assets	**¥ 437**
Non-current assets	**168**
Current liabilities	**(3,067)**
Non-current liabilities	**(103)**
Foreign currency translation adjustment	**431**
Gain on sale of businesses	**5,725**
Business sale price	**3,591**
Proceeds from borrowing from the transferee of the subsidiary subject to business transfer	**1,300**
(Deduction) Accounts receivable - other	**619**
Cash and cash equivalents	**4**
Proceeds from sale of businesses	**¥ 4,267**

(c) Major components of assets and liabilities of newly consolidated subsidiaries acquired by share exchanges

Fiscal year ended March 31, 2023

The relationship among major components of assets and liabilities at initial consolidation of Sakai Display Products Corporation and its subsidiaries, the acquisition cost of shares and the increase in cash and cash equivalents related to this consolidation by share exchanges were as follows:

	Yen (millions)
Current assets	¥ 40,365
Non-current assets	207,701
Goodwill	69,240
Current liabilities	(163,079)
Non-current liabilities	(103,806)
Acquisition cost of shares	50,422
Cash and cash equivalents	2,099
(Deduction) Price of the Company's shares issued through the share exchange	40,337
Market value of shares held immediately before the business combination as of the date of the business combination	10,084
Increase in cash and cash equivalents resulting from the share exchange	¥ 2,099

(d) Significant non-cash transactions

	Yen (millions)	
	2022	**2023**
Increase in capital surplus resulting from the share exchange	¥ —	**¥ 40,337**

7. Leases

Finance leases

(a) As lessee

The information is omitted as it was immaterial.

(b) As lessor

Amount of lease receivables to be collected on and after March 31, 2022

(1) Current assets

	Yen (millions)					
	2022					
	Within 1 year	Over 1 year and no more than 2 years	Over 2 years and no more than 3 years	Over 3 years and no more than 4 years	Over 4 years and no more than 5 years	Over 5 years
Lease receivables	¥ 8,233	¥ —	¥ —	¥ —	¥ —	¥ —

(2) Investments and other assets

	Yen (millions)					
	2022					
	Within 1 year	Over 1 year and no more than 2 years	Over 2 years and no more than 3 years	Over 3 years and no more than 4 years	Over 4 years and no more than 5 years	Over 5 years
Lease receivables	¥ —	¥ 6,552	¥ 4,873	¥ 3,493	¥ 2,798	¥ 29,289

Note: Information on finance leases as a lessor for the fiscal year ended March, 31, 2023 is omitted as it was immaterial.

Operating leases

(a) As lessee

The balance of remaining lease payments for non-cancelable contracts as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Due within one year	¥ 1,464	**¥ 6**
Due after one year	4,231	**73**
Total	¥ 5,696	**¥ 79**

Note: The Group's overseas consolidated subsidiaries adopting US GAAP have applied ASC 842 "Leases" from the fiscal year ended March 31, 2023. Consequently, operating leases of these subsidiaries are included only in the amounts for the fiscal year ended March 31, 2022.

(b) As lessor

Future lease receipts for non-cancelable contracts as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Due within one year	¥ 1,558	**¥ 1,383**
Due after one year	2,045	**1,795**
Total	¥ 3,603	**¥ 3,179**

8. Financial Instruments

(a) Qualitative information on financial instruments

(1) Policies for financial instruments

The Company and its consolidated subsidiaries obtain necessary funds mainly through bank loans, according to its capital investment plan for its main business of manufacturing and distributing electronic communication equipment, electronic equipment, electronic application equipment and electronic components. Short-term operating funds are obtained through bank loans. Transactions involving such financial instruments are conducted with creditworthy financial institutions.

The Company utilizes derivative transactions for minimizing risks and does not intend to use them for speculative or dealing purposes.

(2) Description and risks of financial instruments

Notes and accounts receivable are exposed to customer credit risks. Some notes and accounts receivable are denominated in foreign currencies because the Company conducts business globally and, therefore, are exposed to foreign currency risks. Notes and accounts payable - trade and electronically recorded obligations - operating are due within one year. Some notes and accounts payable arising from the import of raw materials, etc. are denominated in foreign currencies and, therefore, are exposed to foreign currency risks. The Company makes use of forward exchange contracts to hedge the foreign currency risk exposure on the net position of foreign currency denominated notes and accounts receivable and notes and accounts payable.

Other securities are held for long term to develop better business alliances and relationships with the Company's customers and suppliers, and are exposed to market price fluctuation risks. The main purpose of long-term borrowings is to procure funds necessary for capital investments. The longest repayment term is 14 years and 4 months from March 31, 2023.

Derivative transactions consist primarily of forward exchange contracts, which are used to hedge the foreign currency risk exposure, and interest rate swaps. For hedging instruments, hedged items, hedging policies and assessment methods of effectiveness of hedging instruments, see "(o) Hedge accounting" in "1. Summary of Significant Accounting and Reporting Policies."

(3) Risk management of financial instruments

i) Management of credit risks

For notes and accounts receivable, the Finance Division and Accounting Division of Finance and Administration Office of the Company periodically reviews the status of its key customers, monitoring their respective payment deadlines and remaining outstanding. The Company strives to recognize and reduce the risks of irrecoverability as a result of deteriorating financial conditions or other factors at an early stage. The Company's consolidated subsidiaries also follow the same monitoring and administration process.

ii) Management of market risks

The Company decides basic policies for derivative transactions at the Foreign Exchange Administration Committee meeting and the Finance Administration Committee meeting which are required to be held monthly by the Company's internal procedure. The Finance Division of Finance and Administration Office executes transactions and reports the results of such transactions to the Accounting Division of Finance and Administration Office on a daily basis. The Accounting Division has set up a specialized section for monitoring transaction results and position management and reports the results of transactions to the head of Finance and Administration Office on a daily basis.

In addition, the Finance Division reports the results of transactions to the Foreign Exchange Administration Committee and the Finance Administration Committee on a monthly basis. The consolidated subsidiaries also manage forward foreign exchange transactions in accordance with the rules established by the Company and report the content of such transactions to the Company on a monthly basis.

For other securities and investments in capital, the Company monitors their fair values and the issuers' financial positions, and continually reviews the need to increase or decrease the holdings of such financial instruments based on the factors mentioned above as well as the relationship with the issuers.

iii) Management of liquidity risks in financing activities

The Finance Division manages liquidity risks by preparing and updating cash management plans based on reports from each section and by maintaining liquidity on hand.

(4) Supplementary explanation of fair value, etc. of financial instruments

Since variable factors are incorporated into the estimation of the fair value of financial instruments, the value may fluctuate when different assumptions are adopted.

The contract amounts regarding the derivative transactions are shown in "10. Derivative Transactions," however, the amount themselves do not indicate the magnitude of the market risks associated with derivative transactions.

(b) Fair value of financial instruments

The consolidated balance sheet amounts, fair values and differences between the two as of March 31, 2022 and 2023 are included in the tables below.

	Yen (millions) 2022		
	Consolidated balance sheet amount	Fair Value	Difference
(1) Notes and accounts receivable — trade*1	¥ 477,269	¥ 475,631	¥ (1,638)
(2) Securities and investment securities*2			
1) Shares of subsidiaries and affiliates	0	1,729	1,729
2) Other securities	38,017	38,017	—
Total assets	¥ 515,286	¥ 515,377	¥ 91
(1) Long-term borrowings	572,270	574,219	1,949
Total liabilities	¥ 572,270	¥ 574,219	¥ 1,949
Derivative transactions*3			
1) Derivative transactions — hedge accounting not applied	¥ 3,591	¥ 3,591	¥ —
2) Derivative transactions — hedge accounting applied	3,711	1,334	(2,376)
Total derivative transactions	¥ 7,303	¥ 4,926	¥ (2,376)

*1 Cash and deposits, notes and accounts payable — trade, electronically recorded obligations — operating, and short-term borrowings, lease liabilities (current liabilities) are omitted because their fair values approximate their book values as they are cash-based and settled in a short period of time.

*2 Stocks and others that do not have available market prices are not included in "(2) Securities and investment securities." The amounts recognized on the consolidated balance sheets for these financial instruments were as follows:

Classification	Yen (millions) 2022
Unlisted stocks	¥ 56,780
Investment in capital	76,594

*3 Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

	Yen (millions) **2023**		
	Consolidated balance sheet amount	Fair Value	Difference
(1) Notes and accounts receivable — trade*1	**¥ 433,106**	**¥ 431,799**	**¥ (1,307)**
(2) Securities and investment securities*2			
1) Shares of subsidiaries and affiliates	**0**	**1,514**	**1,514**
2) Other securities	**40,899**	**40,899**	**—**
Total assets	**¥ 474,005**	**¥ 474,212**	**¥ 207**
(1) Long-term borrowings	**542,727**	**542,743**	**15**
Total liabilities	**¥ 542,727**	**¥ 542,743**	**¥ 15**
Derivative transactions*3			
1) Derivative transactions — hedge accounting not applied	**¥ 2,535**	**¥ 2,535**	**¥ —**
2) Derivative transactions — hedge accounting applied	**524**	**80**	**(444)**
Total derivative transactions	**¥ 3,060**	**¥ 2,615**	**¥ (444)**

*1 Cash and deposits, notes and accounts payable — trade, electronically recorded obligations — operating, and short-term borrowings, lease liabilities (current liabilities) are omitted because their fair values approximate their book values as they are cash-based and settled in a short period of time.

*2 Stocks and others that do not have available market prices are not included in "(2) Securities and investment securities." The amounts recognized on the consolidated balance sheets for these financial instruments were as follows:

Classification	Yen (millions) **2023**
Unlisted stocks	**¥ 50,104**
Investment in capital	**125,203**

*3 Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

Note 1: Aggregate maturity of cash and deposits, and receivables as of March 31, 2022 and 2023 were as follows:

	Yen (millions) 2022		
	Cash and deposits	Notes and accounts receivable - trade	Total
Due within one year	¥ 287,361	¥ 469,975	¥ 757,336
Due after one year, within five years	—	7,002	7,002
Due after five years, within ten years	—	291	291
Due after ten years	—	—	—

	Yen (millions)		
	2023		
	Cash and deposits	Notes and accounts receivable – trade	Total
Due within one year	**¥ 262,058**	**¥ 428,336**	**¥ 690,394**
Due after one year, within five years	**—**	**4,650**	**4,650**
Due after five years, within ten years	**—**	**119**	**119**
Due after ten years	**—**	**—**	**—**

Note 2: Repayment plan for loans after closing date

	Yen (millions)		
	2022		
	Short-term borrowings	Long-term borrowings	Total
Due within one year	¥ 54,300	¥ —	¥ 54,300
Due after one year, within two years	—	29,360	29,360
Due after two years, within three years	—	18,397	18,397
Due after three years, within four years	—	10,506	10,506
Due after four years, within five years	—	513,994	513,994
Due after five years	—	11	11

	Yen (millions)		
	2023		
	Short-term borrowings	Long-term borrowings	Total
Due within one year	**¥ 163,896**	**¥ —**	**¥ 163,896**
Due after one year, within two years	**—**	**18,715**	**18,715**
Due after two years, within three years	**—**	**10,003**	**10,003**
Due after three years, within four years	**—**	**513,994**	**513,994**
Due after four years, within five years	**—**	**2**	**2**
Due after five years	**—**	**12**	**12**

(c) Matters regarding financial statements' categorization by levels of fair value hierarchy

The fair values of financial instruments are categorized into the following three levels depending on the observability and significance of inputs used in the fair value measurement.

Level 1 fair value: Of the observable inputs in the fair value measurement, the fair value is measured based on the quoted price in an active market for the subject asset or liability.

Level 2 fair value: Of the observable inputs in the fair value measurement, the fair value is measured using inputs other than those used for Level 1.

Level 3 fair value: The fair value is measured using inputs that cannot be observed.

When there are multiple inputs that are significant to the measurement of the fair value, and those inputs are at different levels of the fair value hierarchy, the fair value measurement is categorized in the same level of fair value hierarchy as the lowest level input.

(1) Financial instruments reported on the consolidated balance sheets at fair value

	Yen (millions)			
	2022			
	Fair value			
Classification	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Other securities	¥ 38,017	¥ —	¥ —	¥ 38,017
Derivative transactions*				
Currency-related	—	7,356	—	7,356
Interest rate-related	—	(52)	—	(52)
Total assets	¥ 38,017	¥ 7,303	¥ —	¥ 45,320

* Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

	Yen (millions)			
	2023			
	Fair value			
Classification	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Other securities	**¥ 40,899**	**¥ —**	**¥ —**	**¥ 40,899**
Derivative transactions*				
Currency-related	**—**	**3,070**	**—**	**3,070**
Interest rate-related	**—**	**(10)**	**—**	**(10)**
Total assets	**¥ 40,899**	**¥ 3,060**	**¥ —**	**¥ 43,959**

* Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

(2) Financial instruments other than those reported on the consolidated balance sheets at fair value

	Yen (millions)			
	2022			
	Fair value			
Classification	Level 1	Level 2	Level 3	Total
Notes and accounts receivable — trade	¥ —	¥ 475,631	¥ —	¥ 475,631
Securities and investment securities				
Shares of subsidiaries and affiliates	1,729	—	—	1,729
Derivative transactions*				
Currency-related	—	(2,376)	—	(2,376)
Total assets	¥ 1,729	¥ 473,254	¥ —	¥ 474,983
Long-term borrowings	—	574,219	—	574,219
Total liabilities	¥ —	¥ 574,219	¥ —	¥ 574,219

* Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

	Yen (millions)			
	2023			
	Fair value			
Classification	Level 1	Level 2	Level 3	Total
Notes and accounts receivable — trade	**¥ —**	**¥ 431,799**	**¥ —**	**¥ 431,799**
Securities and investment securities				
Shares of subsidiaries and affiliates	**1,514**	**—**	**—**	**1,514**
Derivative transactions*				
Currency-related	**—**	**(444)**	**—**	**(444)**
Total assets	**¥ 1,514**	**¥ 431,354**	**¥ —**	**¥ 432,869**
Long-term borrowings	**—**	**542,743**	**—**	**542,743**
Total liabilities	**¥ —**	**¥ 542,743**	**¥ —**	**¥ 542,743**

* Net receivables and payables arising from derivative transactions. Net payables are indicated by "( )."

Note: Explanation of valuation techniques and inputs used in fair value measurements

Securities and investment securities

Listed stocks are valued using the quoted price. Because they are traded in active markets, their fair value is classified as Level 1 fair value.

Derivative transactions

The fair value of items subject to the allocation method for forward exchange contracts is calculated based on the forward exchange rate as of the last day of the fiscal year, and is classified as Level 2 fair value.

In addition, the fair value of interest-swap transactions is determined based on the prices quoted by counterparty financial institutions, and is classified as Level 2 fair value.

Notes and accounts receivable — trade

For those settled in a short period of time among notes and accounts receivable — trade, their fair value approximates their book value, and, therefore, the fair value is determined based on the book value.

The fair value of accounts receivable that take a long time to collect is calculated based on the present value discounted by the interest rate that takes into account the period to maturity and credit risks for each receivable classified by a certain period, and is classified as Level 2 fair value.

Long-term borrowings

For long-term borrowings, the fair value is based on the present value calculated by discounting the total amount of principal and interest at an interest rate that would be charged for similar new loans, and is classified as Level 2 fair value.

9. Investment Securities

Information on other securities as of March 31, 2022 was as follows:

	Yen (millions)			
	2022			
	Acquisition cost	Unrealized gains	Unrealized losses	Fair market value
Equity securities	¥ 16,905	¥ 21,129	¥ (18)	¥ 38,017
	¥ 16,905	¥ 21,129	¥ (18)	¥ 38,017

Equity securities and others that do not have market prices (¥78, 239 million as of March 31, 2022) are not included in the above table.

The proceeds from sales of other securities were ¥714 million for the fiscal year ended March 31, 2022. The gross realized gains on those sales were ¥631 million for the fiscal year ended March 31, 2022. The gross realized losses on those sales were ¥7 million for the fiscal year ended March 31, 2022.

Impairment losses recorded for unlisted stocks of other securities were ¥77 million for the fiscal year ended March 31, 2022.

Information on other securities as of March 31, 2023 was as follows:

	Yen (millions)			
	2023			
	Acquisition cost	Unrealized gains	Unrealized losses	Fair market value
Equity securities	**¥ 16,905**	**¥ 23,993**	**¥ (0)**	**¥ 40,899**
	¥ 16,905	**¥ 23,993**	**¥ (0)**	**¥ 40,899**

Equity securities and others that do not have market prices (¥85,452 million as of March 31, 2023) are not included in the above table.

The proceeds from sales of other securities were ¥40 million for the fiscal year ended March 31, 2023. The gross realized gains on those sales were ¥17 million for the fiscal year ended March 31, 2023.

Impairment losses recorded for unlisted stocks of other securities were ¥138 million for the fiscal year ended March 31, 2023.

10. Derivative Transactions

(a) Derivative transactions — hedge accounting not applied

Currency-related transactions

		Yen (millions)			
		2022			
Classification	Type of derivatives	Contract amount	Amount of contract due after one year	Fair value	Profit (loss) from valuation
Off-market transactions	Forward exchange contracts				
	Sell				
	U.S. dollar	¥ 23,097	¥ —	¥ (690)	¥ (690)
	Euro	3,370	—	(101)	(101)
	Canadian dollar	241	—	(16)	(16)
	Russian rouble	218	—	61	61
	New Zealand dollar	63	—	(3)	(3)
	Australian dollar	55	—	(3)	(3)
	Chinese yuan	0	—	0	0
	Buy				
	U.S. dollar	79,024	—	4,012	4,012
	Euro	10,480	—	186	186
	Pound sterling	4,572	—	109	109
	Singapore dollar	875	—	36	36
	Chinese yuan	50	—	1	1
Total		¥ 122,051	¥ —	¥ 3,591	¥ 3,591

		Yen (millions)			
		2023			
Classification	Type of derivatives	Contract amount	Amount of contract due after one year	Fair value	Profit (loss) from valuation
Off-market transactions	Forward exchange contracts				
	Sell				
	U.S. dollar	**¥ 35,985**	**¥ —**	**¥ (66)**	**¥ (66)**
	Euro	**2,541**	**—**	**(44)**	**(44)**
	Canadian dollar	**152**	**—**	**1**	**1**
	Australian dollar	**97**	**—**	**5**	**5**
	Chinese yuan	**6**	**—**	**(0)**	**(0)**
	New Zealand dollar	**5**	**—**	**0**	**0**
	Buy				
	U.S. dollar	**107,210**	**—**	**1,892**	**1,892**
	Euro	**13,462**	**—**	**416**	**416**
	Pound sterling	**5,586**	**—**	**330**	**330**
	Chinese yuan	**15**	**—**	**0**	**0**
Total		**¥ 165,062**	**¥ —**	**¥ 2,535**	**¥ 2,535**

(b) Derivative transactions — hedge accounting applied

(1) Currency-related transactions

Hedge accounting method	Type of derivatives	Main hedged item	Yen (millions) 2022 Contract amount	Amount of contract due after one year	Fair value
Principle-based accounting	Forward exchange contracts				
	Sell	Accounts receivable — trade			
	U.S. dollar		¥ 37,627	¥ —	¥ (1,407)
	Euro		16,111	—	(474)
	Pound sterling		1,344	—	12
	Canadian dollar		770	—	(63)
	Australian dollar		305	—	(34)
	Russian rouble		293	—	31
	Swedish krona		182	—	(1)
	Swiss franc		175	—	(1)
	New Zealand dollar		153	—	(15)
	Polish zloty		68	—	(0)
	Norwegian krone		50	—	(1)
	Czech koruna		47	—	(0)
	Danish krone		39	—	(0)
	Hungarian forint		25	—	(0)
	Chinese yuan		2	—	(0)
	Singapore dollar		2	—	(0)
	Buy	Accounts payable — trade			
	U.S. dollar		93,084	—	5,676
	Euro		6,665	—	44
	Japanese yen		2	—	(0)
	Pound sterling		1	—	(0)
	Singapore dollar		0	—	0
Allocation accounting	Forward exchange contracts				
	Sell	Accounts receivable — trade			
	U.S. dollar		94,239	—	(5,580)
	Euro		8,293	—	(380)
	Pound sterling		624	—	(19)
	Russian rouble		81	—	6
	Canadian dollar		0	—	(0)
	Buy	Accounts payable — trade			
	U.S. dollar		63,962	—	3,596
	Japanese yen		131	—	(2)
	Euro		104	—	2
	Singapore dollar		8	—	0
	Pound sterling		0	—	0
Total			¥ 324,398	¥ —	¥ 1,387

Hedge accounting method	Type of derivatives	Main hedged item	Yen (millions) 2023 Contract amount	Amount of contract due after one year	Fair value
Principle-based accounting	Forward exchange contracts				
	Sell	Accounts receivable — trade			
	Euro		**¥ 9,179**	**¥ —**	**¥ (68)**
	U.S. dollar		**7,424**	**—**	**29**
	Pound sterling		**860**	**—**	**(7)**
	Swiss franc		**152**	**—**	**1**
	Swedish krona		**145**	**—**	**(0)**
	Polish zloty		**132**	**—**	**(1)**
	Czech koruna		**67**	**—**	**(0)**
	Norwegian krone		**54**	**—**	**0**
	Danish krone		**53**	**—**	**0**
	New Zealand dollar		**26**	**—**	**0**
	Hungarian forint		**18**	**—**	**(0)**
	Canadian dollar		**2**	**—**	**(0)**
	Buy	Accounts payable — trade			
	U.S. dollar		**73,676**	**—**	**443**
	Euro		**7,185**	**—**	**138**
	Pound sterling		**18**	**—**	**0**
	Japanese yen		**2**	**—**	**(0)**
Allocation accounting	Forward exchange contracts				
	Sell	Accounts receivable — trade			
	U.S. dollar		**99,298**	**—**	**(562)**
	Euro		**2,610**	**—**	**(80)**
	Buy	Accounts payable — trade			
	U.S. dollar		**66,924**	**—**	**142**
	Euro		**815**	**—**	**56**
	Japanese yen		**86**	**—**	**(0)**
Total			**¥ 268,736**	**¥ —**	**¥ 90**

(2) Interest rate-related transactions

Hedge accounting method	Type of derivatives	Main hedged item	Yen (millions) 2022 Contract amount	Amount of contract due after one year	Fair value
Principle-based accounting	Interest rate swaps Pay fixed/receive floating	Long-term borrowings	¥ 20,000	¥ 20,000	¥ (52)
Total			¥ 20,000	¥ 20,000	¥ (52)

Hedge accounting method	Type of derivatives	Main hedged item	Yen (millions) **2023** Contract amount	Amount of contract due after one year	Fair value
Principle-based accounting	Interest rate swaps Pay fixed/receive floating	Long-term borrowings	**¥ 20,000**	**¥ —**	**¥ (10)**
Total			**¥ 20,000**	**¥ —**	**¥ (10)**

11. Bonds Payable, Borrowings and Lease liabilities

(a) Bonds payable

Not applicable for the fiscal years ended March 31, 2022 and 2023

(b) Borrowings and lease liabilities

Borrowings and lease liabilities as of March 31, 2022 and 2023 consisted of the following:

	Yen (millions) 2022	**2023**
Short-term borrowings with the following interest rates 0.5% as of March 31, 2022 and 1.1% as of March 31, 2023	¥ 47,095	**¥ 86,387**
Current portion of long-term borrowings with the following interest rates 0.9% as of March 31, 2022 and 2.5% as of March 31, 2023	7,204	**77,508**
Current portion of lease liabilities with the following interest rates 2.9% as of March 31, 2022 and 1.9% as of March 31, 2023	2,283	**18,966**
Long-term borrowings (except portion due within one year) with the following interest rates 0.5% as of March 31, 2022 and 0.5% as of March 31, 2023	572,270	**542,727**
Lease liabilities (except portion due within one year) with the following interest rates 1.7% as of March 31, 2022 and 2.2% as of March 31, 2023	4,907	**10,083**
	¥ 633,761	**¥ 735,674**

Notes: 1. Interest rates shown are weighted average interest rates for the balance outstanding as of March 31, 2022 and 2023 respectively.

2. The aggregate annual maturities of long-term borrowings due within 5 years (except portion due within one year) as of March 31, 2023 were as follows:

Years ending March 31	Yen (millions)
2025	¥ 18,715
2026	10,003
2027	513,994
2028	2

The aggregate annual maturities of lease liabilities due within 5 years (except portion due within one year) as of March 31, 2023 were as follows:

Years ending March 31	Yen (millions)
2025	¥ 4,726
2026	3,709
2027	570
2028	180

3. Current portion of lease liabilities and lease liabilities (excluding current portion) do not include those recorded on the consolidated balance sheets by the application of IFRS 16 "Leases" and US GAAP ASC 842 "Leases". The balance of those lease liabilities as of March 31, 2023 was as follows:
   Current portion of lease liabilities ¥4,286 million
   Lease liabilities (excluding current portion) ¥11,178 million

12. Pension Plans

(a) Overview of the applied pension plans

The Company and its domestic consolidated subsidiaries have primarily a trustee non-contributory defined benefit pension plan for their employees to supplement a governmental welfare pension plan. Certain overseas consolidated subsidiaries primarily have defined contribution pension plans and lump-sum retirement benefit plans.

(b) Defined benefit pension plans

(1) Reconciliations of the defined benefit obligations

Reconciliations of the defined benefit obligations of the Company and its consolidated subsidiaries as of March 31, 2022 and 2023 consisted of the following:

	Yen (millions)	
	2022	**2023**
Balance at beginning of year	¥ 347,069	**¥ 338,057**
Service cost	9,503	**9,093**
Interest cost	3,008	**3,365**
Actuarial loss (gain)	(2,959)	**(12,850)**
Benefits paid	(23,618)	**(27,223)**
Increase from newly consolidated subsidiaries	—	**4,878**
Other	459	**(4,825)**
Foreign currency exchange differences	4,594	**2,689**
Balance at end of year	¥ 338,057	**¥ 313,185**

(2) Reconciliations of the fair value of plan assets

Reconciliations of the fair value of plan assets of the Company and its consolidated subsidiaries as of March 31, 2022 and 2023 consisted of the following:

	Yen (millions)	
	2022	**2023**
Balance at beginning of year	¥ 269,094	**¥ 274,720**
Expected return on plan assets	6,759	**7,389**
Actuarial gain (loss)	1,014	**(28,826)**
Employer contribution	16,128	**14,603**
Benefits paid	(22,612)	**(25,783)**
Increase from newly consolidated subsidiaries	—	**7,079**
Other	45	**(4,717)**
Foreign currency exchange differences	4,290	**2,914**
Balance at end of year	¥ 274,720	**¥ 247,381**

(3) Reconciliations of the defined benefit obligations and the fair value of the plan assets and the amount recognized in the consolidated balance sheets

Reconciliations of the defined benefit obligations and the fair value of the plan assets and the amount recognized in the consolidated balance sheets as of March 31, 2022 and 2023 consisted of the following:

	Yen (millions)	
	2022	**2023**
Funded defined benefit obligations at end of year	¥ 331,487	**¥ 304,051**
Fair value of plan assets at end of year	(274,720)	**(247,381)**
Funded status at end of year	56,766	**56,669**
Unfunded defined benefit obligations at end of year	6,570	**9,134**
Total net retirement benefit liability	¥ 63,336	**¥ 65,804**
Retirement benefit liability	73,630	**72,019**
Retirement benefit asset	(10,293)	**(6,214)**
Total net retirement benefit liability	¥ 63,336	**¥ 65,804**

(4) Retirement benefit expenses

Retirement benefit expenses of the Company and its consolidated subsidiaries for the fiscal years ended March 31, 2022 and 2023 consisted of the following:

	Yen (millions)	
	2022	**2023**
Service cost	¥ 9,503	**¥ 9,093**
Interest cost	3,008	**3,365**
Expected return on plan assets	(6,759)	**(7,389)**
Amortization of net actuarial loss	12,819	**1,187**
Amortization of past service cost	73	**67**
Other	31	**774**
Total retirement benefit expenses	¥ 18,677	**¥ 7,098**

(5) Amounts recognized in remeasurements of defined benefit plans

Amounts recognized in remeasurements of defined benefit plans (other comprehensive income) for the fiscal years ended March 31, 2022 and 2023 before the effect of income taxes consisted of the following:

	Yen (millions)	
	2022	**2023**
Past service cost	¥ 169	**¥ (25)**
Net actuarial gain (loss)	15,831	**(14,515)**
Total	¥ 16,000	**¥ (14,541)**

(6) Amounts recognized in remeasurements of defined benefit plans

Amounts recognized in remeasurements of defined benefit plans (accumulated other comprehensive income) as of March 31, 2022 and 2023 before the effect of income taxes consisted of the following:

	Yen (millions)	
	2022	**2023**
Unrecognized past service cost	¥ 641	**¥ 667**
Unrecognized net actuarial loss	5,261	**19,777**
Total	¥ 5,903	**¥ 20,444**

(7) Classification of the fair value of plan assets

Classification of the fair value of plan assets of the Company and its consolidated subsidiaries as of March 31, 2022 and 2023 consisted of the following:

	2022	**2023**
Bonds	29%	**23%**
Equity securities	20%	**19%**
Cash and cash equivalents	4%	**4%**
Life insurance company general accounts	13%	**15%**
Alternatives	27%	**32%**
Other	7%	**7%**
Total	100%	**100%**

Note: Alternatives mainly consisted of investments in hedge funds

(8) Long-term expected rate of return

Current and target asset allocations, historical and expected returns on various categories of plan assets have been considered in determining the long-term expected rate of return.

(9) Actuarial assumptions

Major actuarial assumptions

	2022	**2023**
Discount rate	mainly 0.5%	**mainly 0.5%**
Expected long-term rate of return	mainly 2.4%	**mainly 2.4%**

(c) Defined contribution pension plans

The required contribution of certain consolidated subsidiaries for the defined contribution pension plans was ¥1,496 million for the fiscal year ended March 31, 2022 and ¥1,723 million for the fiscal year ended March 31, 2023.

13. Stock Options

(a) Expensed amount and account

The expensed amount and account for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Selling, general and administrative expenses	¥ 7	**¥ 1**

(b) Amount recorded as profit due to expiration of unexercised rights

The amount recorded as profit due to expiration of unexercised rights for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Gain on reversal of share acquisition rights	¥ —	**¥ 4**

(c) Description, size and changes of stock options

(1) Description of stock option

	First stock options (resolved on April 19, 2017)	Second stock options (resolved on September 26, 2017)	Third stock options (resolved on August 28, 2018)
Grantee categories and numbers of grantees	5 directors of the Company 43 employees of the Company	7 directors of the Company 22 employees of the Company	5 directors of the Company 15 employees of the Company
Number of stock options by class of shares (Note 1)	81,100 common shares	45,300 common shares	104,500 common shares
Grant date	April 21, 2017	September 28, 2017	September 3, 2018
Vesting conditions	See Note 2	See Note 2	See Note 2
Service period	From April 21, 2017 to April 20, 2019	From September 28, 2017 to September 27, 2019	From September 3, 2018 to September 2, 2020
Exercise period	From April 21, 2019 to April 21, 2024	From September 28, 2019 to September 28, 2024	From September 3, 2020 to September 3, 2025

Notes: 1. Equivalent number of shares has been described instead of the number of stock options.
The Company performed a share consolidation at a ratio of 10 shares to 1 share on October 1, 2017. With regard to first and second stock options, figures shown above are the number of shares after the conversion.
2. Eligible persons shall be directors, executives, audit & supervisory board members or employees of the Company, or the Company's subsidiaries and affiliates at the time of the exercise. However, the grantees can exercise their stock options without satisfying the above conditions in special cases when the Board of Directors permits in writing.

(2) Size and changes of stock options

Stock options that existed for the fiscal year ended March 31, 2023 were as follows:

i) Number of stock options

Equivalent number of shares has been described instead of the number of stock options.

	First stock options (resolved on April 19, 2017)	Second stock options (resolved on September 26, 2017)	Third stock options (resolved on August 28, 2018)
Unvested stock options (shares)			
Balance on March 31, 2022	—	—	12,000
Granted	—	—	—
Nullified	—	—	—
Vested	—	—	12,000
Balance on March 31, 2023	—	—	—
Vested stock options (shares)			
Balance on March 31, 2022	74,300	38,100	75,500
Vested	—	—	12,000
Exercised	—	—	—
Nullified	2,300	—	—
Balance on March 31, 2023	72,000	38,100	87,500

Note: The Company performed a share consolidation at a ratio of 10 shares to 1 share on October 1, 2017.
With regard to first and second stock options, figures shown above are the number of shares after the conversion.

ii) Unit price

	Yen		
	First stock options (resolved on April 19, 2017)	Second stock options (resolved on September 26, 2017)	Third stock options (resolved on August 28, 2018)
Exercise price	¥ 4,120	¥ 3,400	¥ 2,717
Weighted-average share price at exercise	—	—	—
Fair value at the grant date	(74,400 shares) 1,970 (7,000 shares) 2,110	1,570	(54,500 shares) 1,010 (35,000 shares) 1,041 (15,000 shares) 1,139

Note: The Company performed a share consolidation at a ratio of 10 shares to 1 share on October 1, 2017.
With regard to first and second stock options, figures shown above are the number of shares after the conversion.

(d) Estimation method of the number of vested stock options

The method used is to deduct only the number of actual nullified stock options as the estimation method of the number of vested stock options since a reasonable estimation of the number of stock options nullified in the future is difficult.

14. Income Taxes

The Company is subject to a number of different income taxes, which in the aggregate indicate a statutory tax rate in Japan of approximately 30.4% for the fiscal years ended March 31, 2022 and 2023.

The Company and its wholly owned domestic subsidiaries have adopted the Group Tax Relief System in Japan from the fiscal year ended March 31, 2023.

(a) Significant differences between the statutory tax rate and the effective tax rate for financial statement purposes

The significant differences between the statutory tax rate and the effective tax rate for financial statement purposes for the fiscal years ended March 31, 2022 and 2023 were as follows:

	2022	**2023**
Statutory tax rate	30.4%	—
Foreign withholding tax	3.0	—
Tax credit	(3.2)	—
Net Increase (Decrease) in valuation allowance and other	(10.4)	—
Differences in normal tax rates of overseas consolidated subsidiaries	(3.0)	—
Other	1.1	—
Effective tax rate	17.9%	—

Note: Information for the fiscal year ended March 31, 2023 is omitted since the Group recorded a loss before income taxes.

(b) Significant components of deferred tax assets and deferred tax liabilities

The significant components of deferred tax assets and deferred tax liabilities as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Deferred tax assets:		
Inventories	¥ 11,868	**¥ 18,433**
Allowance for doubtful accounts	7,444	**40,898**
Accrued expenses	14,047	**16,917**
Provision for bonuses	4,643	**3,971**
Provision for sales promotion expenses	1,603	**1,519**
Retirement benefit liability	21,646	**20,704**
Buildings and structures	18,582	**53,727**
Machinery, equipment and vehicles	2,122	**17,666**
Software	3,534	**3,770**
Long-term prepaid expenses	5,635	**5,263**
Shares of subsidiaries and associates	110,593	**136,129**
Tax loss carried forward*2	143,364	**163,229**
Other	41,672	**73,132**
Gross deferred tax assets	386,759	**555,365**
Valuation allowance for tax loss carried forward*2	(143,272)	**(163,137)**
Valuation allowance for future deductible temporary difference and other	(217,171)	**(369,860)**
Total valuation allowance*1	(360,444)	**(532,998)**
Total deferred tax assets	¥ 26,314	**¥ 22,367**
Deferred tax liabilities:		
Retained earnings appropriated for tax allowable reserves	¥ (1,055)	**¥ (997)**
Valuation difference on available-for-sale securities	(8,907)	**(11,776)**
Other	(4,106)	**(6,530)**
Total deferred tax liabilities	¥ (14,069)	**¥ (19,305)**
Net deferred tax assets	¥ 12,245	**¥ 3,062**

*1 Valuation allowance increased by ¥172,553 million in the fiscal year ended March 31, 2023. This is primarily due to an increase in the future deductible temporary difference arising from posting an impairment loss of non-current assets and an increase in tax loss carried forward arising from the increase of newly consolidated subsidiaries.

*2 Tax loss carried forward and its deferred tax assets amount by carry forward period as of March 31, 2023 were as follows:

	Yen (millions)		
	2023		
	Tax loss carried forward*	Valuation allowance	Deferred tax assets
Expire within one year	¥ 26,645	¥ (26,645)	¥ —
Expire after one year, within two years	42,759	(42,759)	—
Expire after two years, within three years	54,293	(54,262)	31
Expire after three years, within four years	7,313	(7,313)	—
Expire after four years, within five years	667	(667)	—
Expire after five years	31,550	(31,489)	61
Total	¥ 163,229	¥ (163,137)	¥ 92

* Tax loss carried forward shown is the amount which is multiplied by effective statutory tax rate.

(Change in presentation method)

"Allowance for doubtful accounts" and "Shares of subsidiaries and associates," which were included in "Other" under "Deferred tax assets" in the fiscal year ended March 31, 2022, are separately presented since their materiality has increased. In order to reflect this change in presentation method, notes to the fiscal year ended March 31, 2022 have been reclassified.

As a result, ¥159,710 million in "Other" that was presented under "Deferred tax assets" has been reclassified as ¥7,444 million in "Allowance for doubtful accounts," ¥110,593 million in "Shares of subsidiaries and associates," and ¥41,672 million in "Other."

(c) Accounting treatment for corporate tax and local corporate tax, and tax effect accounting treatment thereof

From the fiscal year ended March 31, 2023, the Company and some of its domestic consolidated subsidiaries transitioned from the consolidated taxation system to the group tax relief system. Accounting treatment and disclosure of corporate tax, local corporate tax, and tax effect accounting are in accordance with the "Practical Solution to Accounting and Disclosures Under the Group Tax Relief System" (Practical Issues Task Force No. 42, August 12, 2021, hereinafter "PITF No. 42").

In addition, based on PITF No. 42, Paragraph 32-1, changes in accounting policy due to the application of the PITF No. 42 are treated as they have no impact.

15. Business Combinations

The main business combinations conducted during the fiscal year ended March 31, 2023 were as follows:

Business combination through acquisition

(Making Sakai Display Products Corporation a wholly owned subsidiary through a share exchange)

On March 3, 2022, the Company entered into a share purchase agreement with World Praise Limited (hereinafter, "WPL"), a shareholder of Sakai Display Products Corporation (hereinafter, "SDP"), that sets out the Company's acquisition of SDP shares by way of a share exchange under which the Company became a wholly owing parent company and SDP became a wholly owned subsidiary company (hereinafter, the "Share Exchange").

After that, the Company obtained all the approvals and licenses required by competition laws, etc. necessary for the execution of this transaction. Based on the Board of Directors resolution on the Share Exchange made on May 11, 2022, the Company signed a share exchange agreement with SDP on May 31, 2022. The procedures of the Share Exchange were completed, effective June 27, 2022.

Business combination through the Share Exchange is outlined below.

(a) Overview of the business combination

(1) Name and field of business of the acquired company

Name of the acquired company: Sakai Display Products Corporation (SDP)

Field of business: Development, manufacture, sales, import and export of liquid crystal displays and other display devices

(2) Main reasons for the business combination

From 2009, when SDP started its operations, the Company had procured large-size LCD panels for its main lineup of products in TV and commercial display business, from SDP. Based on the judgment that complete subsidiarization of SDP (rejoining the Group) would bring the following benefits to the Company's business, the Share Exchange was executed with WPL, a shareholder of SDP.

i) As the Company strives to expand its TV and commercial display business on a global scale, stable and advantageous procurement of high-definition panels, which accounts for a large proportion of the cost structure, is critical.

ii) This business combination would help the Company's Display Device unit expand applications, improve production capacity, and strengthen competitiveness in the future when demand for displays is expected to increase further driven by the current New Normal, digital transformation, automotive, metaverse, and other new trends.

iii) While China, which holds onto high share of the large-size LCD market, has been in the midst of the trade conflict with the U.S.A., SDP is expected to have an advantage in supplying panels to the markets in the Americas, as it is the only 10th generation (2,880 mm x 3,130 mm mother glass) or larger LCD panel plant outside China.

(3) Date of business combination

June 27, 2022 (Deemed acquisition date: June 30, 2022)

(4) Legal form of business combination

Share exchange

(5) Company name after business combination

The company's name is unchanged.

(6) Ratio of voting rights acquired

Voting rights held immediately before the business combination:	20%
Voting rights additionally acquired through the share exchange:	80%
Voting rights after the acquisition:	100%

(7) Main reason for identifying the acquired company

Due to the fact that the Company acquired 100% of SDP's voting rights though the share exchange and made it a wholly owned subsidiary.

(b) Period of performance of the acquired company included in the consolidated financial statements

From July 1, 2022 to March 31, 2023

In addition, the portion of SDP's performance attributable to the Company for the period from April 1, 2022 to June 30, 2022 was recorded as a share of losses of entities accounted for using the equity method since SDP was an equity-method affiliate of the Company.

(c) Cost of acquisition of the acquired company and breakdown thereof by type of consideration

	Yen (millions)
Market value of shares held immediately before the business combination as of the date of the business combination	¥ 10,084
Market value of common shares of the Company issued on the date of the business combination:	40,337
Total acquisition costs:	¥ 50,422

(d) Exchange ratio by class of shares and calculation method thereof, and number of shares issued

(1) Exchange ratio by class of shares

The Company allotted and issued 11.45 shares of its common shares for each SDP common share. However, 839,600 SDP shares, which the Company owned, was not allocated by the Share Exchange.

(2) Calculation method of share exchange ratio

The Company requested a third-party institution independent from both companies, to calculate the share exchange ratio. The exchange ratio was determined based on the submitted report and discussions between both parties.

(3) Number of shares delivered

38,453,680 shares

(e) Major component of acquisition-related expenses and the amount thereof

Advisory fee, etc. ¥74 million

(f) Difference between the acquisition cost of the acquired company and total amount of individual investment costs leading to the acquisition

Gain on step acquisitions ¥12,422 million

(g) Amount of goodwill recognized, reason for recognition, amortization method and amortization period

(1) Amount of goodwill recognized

¥69,240 million

(2) Reason for recognition

Goodwill was recognized in relation to the excess earning power anticipated at the time of the business combination.

(3) Amortization method and amortization period

The Company started to amortize the goodwill using the straight-line method with an amortization period of 10 years, but recorded an impairment loss at the end of the fiscal year ended March 31, 2023. For details, please refer to "(j) Impairment losses" under "3. Notes to Consolidated Statements of Operations."

(h) Amount of assets accepted and liabilities assumed on the date of business combination and major breakdown thereof

	Yen (millions)
Current assets	¥ 40,365
Non-current assets	207,701
Total assets	248,067
Current liabilities	163,079
Non-current liabilities	103,806
Total liabilities	¥ 266,885

(i) Estimated amounts of impact on the consolidated statements of operations for the fiscal year ended March 31, 2023 assuming the business combination was completed on the first day of the fiscal year and calculation method thereof

	Yen (millions)
Net sales	¥ 6,831
Operating loss	(23,626)
Ordinary loss	(27,492)
Loss before income taxes	(22,301)

(Calculation method of estimated amounts)

The estimated amounts of impact indicate the difference between net sales and profit/loss information with the assumption that the business combination had been completed on the first day of the fiscal year ended March 31, 2023 and with adjustments for the elimination of internal transactions, and net sales and profit/loss information reported in the consolidated statements of operations of the acquiring company. In addition, the goodwill recognized upon the business combination was assumed to be booked at the first day of the fiscal year ended March 31, 2023, and was included in the estimated amounts.

This note is not subject to audit.

16. Revenue Recognition

(a) Information on disaggregated revenue from contracts with customers

The Group's net sales mainly consist of revenue recognized from contracts with customers. The components of the Group's reportable segments disaggregated by type of goods or services were as follows. With the organizational changes made in the fiscal year ended March 31, 2023, the Digital Imaging Solutions business, which was included in Other under the 8K Ecosystem in the fiscal year ended March 31, 2022, is now included in the Smart Business Solutions business. The components for the fiscal year ended March 31, 2022 have been prepared based on the information that reflects the organizational changes, etc.

	Yen (millions)
	2022
Reportable Segment:	
Smart Life:	
Smart Appliances & Solutions business	¥ 356,682
Other	89,357
Sales to external customers	446,039
8K Ecosystem:	
Smart Business Solutions business	341,086
Smart Display Systems business	207,121
Other	9,737
Sales to external customers	557,945
ICT:	
Mobile Communication business	139,803
PC business	177,003
Sales to external customers	316,807
Display Device:	
Display Device business	817,082
Sales to external customers	817,082
Electronic Device:	
Electronic Device business	357,713
Sales to external customers	357,713
Total	¥ 2,495,588

	Yen (millions)
	2023
Reportable Segment:	
Smart Life:	
Smart Appliances & Solutions business	**¥ 374,628**
Other	**93,923**
Sales to external customers	**468,552**
8K Ecosystem:	
Smart Business Solutions business	**392,668**
Smart Display Systems business	**186,215**
Other	**6,544**
Sales to external customers	**585,428**
ICT:	
Mobile Communication business	**147,639**
PC business	**163,712**
Sales to external customers	**311,351**
Display Device:	
Display Device business	**736,224**
Sales to external customers	**736,224**
Electronic Device:	
Electronic Device business	**446,560**
Sales to external customers	**446,560**
Total	**¥ 2,548,117**

The Smart Life segment consists of the Smart Appliances & Solutions business and the other business. The Smart Appliances & Solutions business includes white goods such as refrigerators, washing machines and air conditioners.

The 8K Ecosystem segment consists of the Smart Business Solutions business, the Smart Display Systems business and other businesses. The Smart Business Solutions business includes digital multifunction printers. The Smart Display Systems business includes televisions.

The ICT segment consists of the Mobile Communication business and the PC business. The Mobile Communication business includes mobile phones.

The Display Device segment includes display modules.

The Electronic Device segment includes camera modules.

(b) Basic information for understanding revenue from contracts with customers

(1) Product sales

The Group manufactures and sells telecommunications equipment, electrical equipment, and electronic application equipment as "brand business" (white goods such as refrigerators, washing machines, and air conditioners in the Smart Life segment; digital multi-function printers, televisions, etc. in the 8K Ecosystem segment; and mobile phones, personal computers, etc. in the ICT segment). The Group also manufactures and sells electronic components as "device business" (display modules, etc. in the Display Device segment; and camera modules, etc. in the Electronic Device segment).

In principle, revenue from these transactions is recognized at the point when the customer obtains control of products delivered by the Group as the performance obligation is deemed to have been satisfied then. At that point in time, the legal title to the products, physical possession, and significant risks and rewards of the ownership of the products are transferred to the customer, and the Group is entitled to receive payment for the transaction. For some domestic sales, revenue is recognized upon shipment if the period of time from the shipment to the transfer of control of the products to the customer is considered to be normal.

Revenue is measured at the amount of consideration that the Group expects to be entitled (hereinafter, "transaction price") in return for transfer of products or services to customers. The Group deducts sales rebates paid primarily to retailers from revenue. In this way, in determining a transaction price, if the consideration promised to the customer includes a variable component (hereinafter, "variable consideration"), the transaction price is estimated by subtracting any variable considerations. The amount of a variable consideration is included in the transaction price only to the extent that it is highly probable that the subsequent resolution of uncertainty concerning the amount of the variable consideration will not result in a significant reversal in revenue.

In addition, the Group has product warranty obligations under product sales agreements to repair or replace defective products free of charge within a certain period of time. Such warranty obligations provide assurance to the customer that the product will perform as intended in accordance with the specifications set forth in the agreement with the customer, and are therefore recognized as a provision for product warranties.

(2) Construction contracts

In the energy solution business ("Other" in the Smart Life segment), the Group enters into construction contracts that include design and construction of solar power plants. In such contracts, the performance obligation is deemed to be satisfied over time as the construction progresses, and revenue is recognized according to the degree of progress made in satisfying that performance obligation. The degree of progress is measured by the percentage-of-completion method, which uses the ratio of the cost incurred to the estimated total cost of each contract.

However, for construction contracts that have a very short period of time from the contract commencement date to the date when the performance obligation is expected to be fully satisfied, the Group does not recognize revenue over time, but upon a completion of an acceptance inspection because the performance obligation is deemed to have been satisfied at that point in time.

(3) Services

The Group offers maintenance contracts and product warranty services associated with (1) Product sales contracts and (2) Construction contracts. For maintenance contracts, the Group provides maintenance services over the contract period and recognizes revenue according to the contract period. In some cases, an extended warranty contract is concluded as product warranty services, separately from the normal product warranties provided in accordance with agreed-upon specifications. In such cases, the Group recognizes revenue over the extended warranty period because the performance obligation of the product warranty services is satisfied over time.

(4) Licensing

The Group receives consideration for patent licensing by entering into an agreement that permits a customer to manufacture or sell the Group's products or use its technologies.

Revenue from licensing is recognized over time if the nature of the Group's promise in granting the license to the customer is the right to access the intellectual property over the term of the license. If it is the right to use the intellectual property at the point of time when the license is granted, revenue is recognized at that point.

In addition, for sales-based or usage-based royalties, revenue is measured based on sales etc. of the licensee while the timing of recognition is decided based on when sales, etc. are generated at the licensee side.

(c) Information on the relationship between satisfaction of performance obligations based on contracts with customers and cash flows arising from such contracts, and the amount and timing of revenue expected to be recognized in the next fiscal year and beyond from the contracts with customers outstanding at the end of the current fiscal year

(1) Balance of contract assets and contract liabilities, etc.

	Yen (millions)	
	2022	**2023**
Balance at beginning of year:		
Receivables arising from contracts with customers	¥ 457,649	**¥ 477,269**
Contract assets	12,210	**9,890**
Contract liabilities	74,843	**76,682**

	Yen (millions)	
	2022	**2023**
Balance at end of year:		
Receivables arising from contracts with customers	¥ 477,269	**¥ 433,106**
Contract assets	9,890	**4,951**
Contract liabilities	76,682	**86,838**

Notes: 1. Contract assets are, mainly generated from construction contracts, those related to the rights of the Company and its consolidated subsidiaries regarding the consideration for promised goods or services where performance obligations have been satisfied or partially satisfied as of the end of the fiscal year but have not yet been invoiced. Contract assets are transferred to receivables arising from contracts with customers once the right to consideration becomes unconditional.
Contract liabilities mainly consist of advances received from customers for products and consideration received for performance obligation of promised services that will be satisfied on a continuous basis.
2. Of the amount of revenue recognized in the fiscal year ended March 31, 2023, ¥26,504 million was transferred from the beginning balance of contract liabilities.
3. There were no significant changes in the balances of contract assets and liabilities for the fiscal year ended March 31, 2023.
4. The amount of revenue generated from performance obligations satisfied (or partially satisfied) in prior periods and recognized in the fiscal year ended March 31, 2023 (e.g., change in transaction price) was immaterial.

(2) Transaction price allocated to remaining performance obligations

Applying practical expedients to notes to the transaction price allocated to the remaining performance obligations, contracts with an initially expected contract period of one year or less and sales-based or usage-based royalties from intellectual property license agreements of the Company and its consolidated subsidiaries are not stated. Transaction price allocated to the remaining performance obligations as of March 31, 2023 totals ¥48,085 million. These performance obligations are mainly related to construction contracts, but also include maintenance and warranty services and intellectual property license agreements, etc.

Approximately 48% of this transaction price is expected to be recognized as revenue within one year after March 31, 2023, approximately 40% within a timeframe of more than one year and less than five years, and the rest, approximately 12%, is expected to be recognized after five years.

17. Segment Information

(a) General information about reportable segments

The Group's reportable segments are components of the Group for which discrete financial information is available and whose operating results are reviewed regularly by the Board of Directors. The Board uses this information to make decisions about resources to be allocated among the segments and to assess segment performance.

The Group is working to establish business structure centering brand businesses, while at the same time promoting ESG-focused management to achieve sustainable growth. Specifically, the Group is focusing on the four major goals of (1) Further strengthening healthcare-related business, (2) Contributing to carbon neutrality, (3) HITO (people)-based management and (4) Becoming a true global company. To achieve these goals, the Group defined three brand business domains: Smart Life, 8K Ecosystem, and ICT, as well as two device business domains: Display Device and Electronic Device, as reportable segments.

(b) Basis of measurement of reportable segment sales, income or loss, segment assets and other material items

The accounting policies for the reportable segments are consistent with the Group's accounting policies used in the preparation of its consolidated financial statements. Intersegment sales and income (loss) are recognized based on properly negotiated prices.

Depreciable assets of the administration groups of the Company's headquarters are not allocated to reportable segments. However, depreciation and amortization of these assets are properly allocated to reportable segments.

Additionally, as stated in "(s) Changes in accounting policies" under "1. Summary of Significant Accounting and Reporting Policies" beginning from the fiscal year ended March 31, 2023, the US GAAP ASC 842 "Leases" has been applied to the Group's overseas consolidated subsidiaries that have adopted the US GAAP.

As a result, segment assets as of March 31, 2023 increased by ¥5,636 million for 8K Ecosystem, ¥206 million for ICT, and ¥189 million for Display Device, respectively.

(c) Information on reportable segment sales, income or loss, segment assets and other material items

Segment information as of and for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Net sales:		
Smart Life:		
Customers	¥ 446,039	**¥ 468,552**
Intersegment	152	**191**
Total	446,192	**468,743**
8K Ecosystem:		
Customers	557,945	**585,428**
Intersegment	9,745	**6,404**
Total	567,690	**591,832**
ICT:		
Customers	316,807	**311,351**
Intersegment	7,210	**14,521**
Total	324,017	**325,873**
Display Device:		
Customers	817,082	**736,224**
Intersegment	42,592	**23,729**
Total	859,674	**759,953**
Electronic Device:		
Customers	357,713	**446,560**
Intersegment	39,120	**29,028**
Total	396,834	**475,589**
Adjustments	(98,822)	**(73,875)**
Consolidated net sales	¥ 2,495,588	**¥ 2,548,117**
Segment income (loss):		
Smart Life	¥ 48,291	**¥ 28,209**
8K Ecosystem	24,966	**13,421**
ICT	4,038	**(5,530)**
Display Device	20,316	**(66,482)**
Electronic Device	6,988	**14,799**
Adjustments	(19,884)	**(10,137)**
Consolidated operating profit (loss)	¥ 84,716	**¥ (25,719)**
Segment assets:		
Smart Life	¥ 168,996	**¥ 147,982**
8K Ecosystem	301,192	**309,655**
ICT	120,272	**108,239**
Display Device	480,925	**355,103**
Electronic Device	199,087	**198,078**
Adjustments	685,814	**653,901**
Consolidated assets	¥ 1,956,288	**¥ 1,772,961**

	Yen (millions)	
	2022	**2023**
Other material items		
Depreciation:		
Smart Life	¥ 3,546	**¥ 3,678**
8K Ecosystem	13,766	**15,881**
ICT	8,606	**8,207**
Display Device	18,182	**27,508**
Electronic Device	18,372	**18,972**
Adjustments	3,750	**4,892**
The amount presented in consolidated financial statements	¥ 66,225	**¥ 79,141**
Amortization of goodwill:		
Smart Life	¥ 35	**¥ 39**
8K Ecosystem	1,906	**1,856**
ICT	119	**135**
Display Device	—	**5,193**
Electronic Device	—	**—**
Adjustments	—	**—**
The amount presented in consolidated financial statements	¥ 2,062	**¥ 7,224**
Investments in nonconsolidated subsidiaries and affiliates accounted for using equity method:		
Smart Life	¥ 434	**¥ 478**
8K Ecosystem	2,964	**3,133**
ICT	—	**—**
Display Device	6,753	**42,971**
Electronic Device	—	**—**
Adjustments	40,139	**42,189**
The amount presented in consolidated financial statements	¥ 50,291	**¥ 88,772**
Increase in property, plant, equipment and intangible assets:		
Smart Life	¥ 2,322	**¥ 5,236**
8K Ecosystem	9,535	**17,147**
ICT	8,164	**6,119**
Display Device	18,243	**14,753**
Electronic Device	25,277	**14,717**
Adjustments	4,785	**2,893**
The amount presented in consolidated financial statements	¥ 68,328	**¥ 60,867**

Adjustments of segment income were ¥(19,884) million and ¥(10,137) million for the fiscal years ended March 31, 2022 and 2023, respectively, including elimination of intersegment transactions and corporate expenses not allocated to each reportable segment.

Elimination of intersegment transactions for segment income were ¥(4) million and ¥(0) million, respectively. Corporate expenses not allocated to each reportable segment were ¥(17,235) million and ¥(15,929) million for the fiscal years ended March 31, 2022 and 2023, respectively.

Corporate expenses were mainly attributable to basic R&D expenses and expenses related to the administrative groups of the Company's headquarters.

Adjustments of segment assets were ¥685,814 million and ¥653,901 million as of March 31, 2022 and 2023, respectively, and comprised elimination of intersegment transactions and corporate assets not allocated to each reportable segment.

Elimination of intersegment transactions for segment assets were ¥(8,516) million and ¥(5,086) million, respectively. Corporate assets not allocated to each reportable segment were ¥694,330 million and ¥658,987 million as of March 31, 2022 and 2023, respectively.

Corporate assets not allocated to each reportable segment were attributable mainly to cash and deposits, the Company's investment securities, and depreciable assets related to the Company's R&D groups as well as the administrative groups of the Company's headquarters.

Adjustments of investments in nonconsolidated subsidiaries and affiliates accounted for using equity method were ¥40,139 million and ¥42,189 million as of March 31, 2022 and 2023, respectively, and mainly comprised investments in Sharp Finance Corporation.

Adjustments of increase in property, plant, equipment and intangible assets were ¥4,785 million and ¥2,893 million for the fiscal years ended March 31, 2022 and 2023, respectively, and mainly comprised increases in the Company's R&D groups and the administrative groups of the Company's headquarters.

Depreciation includes the amortization of long-term prepaid expenses.

Increase in property, plant, equipment and intangible assets includes the increase in long-term prepaid expenses.

(d) Related information

(1) Net sales by product/service

Net sales by product/service for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Net sales to outside customers:		
Display modules	¥ 817,082	**¥ 736,224**
Sensing devices	315,919	**415,717**
Other	1,362,586	**1,396,174**
Total	¥ 2,495,588	**¥ 2,548,117**

Note: From the fiscal year ended March 31, 2023, the product/service name of "LCD display modules" has been changed to "Display modules." This change of name does not affect the information of each product/service. As was done with the information for the fiscal year ended March 31, 2023, "LCD display modules" have been renamed "Display modules" for the fiscal year ended March 31, 2022.

(2) Net sales by region/country

Net sales by region/country for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Net sales:		
Japan	¥ 817,794	**¥ 800,315**
China	1,001,698	**988,194**
Asia	240,445	**258,004**
Other	435,649	**501,601**
Total	¥ 2,495,588	**¥ 2,548,117**

Net sales are classified according to regions or countries where customers are located.

(Change in presentation method)

From the fiscal year ended March 31, 2023, "Asia" has been separately presented since its materiality as a region has increased. As a result, ¥676,095 million, which was presented as "Other" in the fiscal year ended March 31, 2022, has been reclassified as ¥240,445 million for "Asia" and ¥435,649 million for "Other."

(3) Property, plant and equipment by region/country

Property, plant and equipment by region/country as of March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Property, plant and equipment, at cost less accumulated depreciation:		
Japan	¥ 301,956	**¥ 275,737**
Asia	71,093	**70,121**
Other	45,211	**43,397**
Total	¥ 418,260	**¥ 389,257**

(4) Major customers and related sales amount

Major customers and related sales amount for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Net sales:		
APPLE INC.	¥ 427,824	**¥ 509,959**
Related segments:		
Display Device and Electronic Device for the years ended March 31, 2022 and 2023		
Net sales:		
General Interface Solution Limited	¥ 345,123	**¥ 315,668**
Related segment:		
Display Device for the years ended March 31, 2022 and 2023		

(e) Impairment losses on non-current assets by reportable segment

Impairment losses on non-current assets by reportable segment for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Impairment losses:		
Smart Life	¥ —	**¥ —**
8K Ecosystem	—	**3,729**
ICT	—	**456**
Display Device	14,791	**213,384**
Electronic Device	7,912	**2,983**
Corporate Assets and Elimination	—	**—**
Total	¥ 22,703	**¥ 220,553**

(f) Goodwill amortization and unamortized balance by reportable segment

Goodwill amortization and the unamortized balance by reportable segment as of and for the fiscal years ended March 31, 2022 and 2023 were as follows:

	Yen (millions)	
	2022	**2023**
Amortization of goodwill:		
Smart Life	¥ 35	**¥ 39**
8K Ecosystem	1,906	**1,856**
ICT	119	**135**
Display Device	—	**5,193**
Electronic Device	—	**—**
Corporate Assets and Elimination	—	**—**
Total	¥ 2,062	**¥ 7,224**
Balance at end of year:		
Smart Life	¥ 56	**¥ 19**
8K Ecosystem	8,191	**6,199**
ICT	191	**66**
Display Device	—	**—**
Electronic Device	—	**—**
Corporate Assets and Elimination	—	**—**
Total	¥ 8,439	**¥ 6,284**

Note: An impairment loss was recorded for ¥745 million of goodwill attributable to the 8K Ecosystem segment and ¥64,047 million of goodwill attributable to the Display Device segment.

(g) Gain on bargain purchase by reportable segment

Fiscal year ended March 31, 2022

The information is omitted as it was immaterial.

Fiscal year ended March 31, 2023

Not applicable

18. Transactions with Related Parties

(a) Transactions with related parties

(1) Transactions between the Company and related parties

i) Parent company and major corporate shareholders, etc. of the Company

Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

ii) Nonconsolidated subsidiaries and affiliates, etc. of the Company

Principal transactions with related parties for the fiscal year ended March 31, 2022 were as follows:

Category	Company name	Location	Share capital	Details of business	Holding or held ratio	Relationship with the related party	Detail of transaction	Transaction amount (millions of yen)	Account	Ending balance (millions of yen)
Affiliate	Sakai Display Products Corporation	Sakai City, Osaka	32,485 million yen	Development, manufacture, distribution, export and import of LCD and other displays	20.0% holding directly	Manufacture of the Company's products and lease of real estate, etc.	Payment of costs and expenses on behalf of the affiliate	42,418	Accounts receivable - other	40,844
							Collection of lease receivables	2,240	Other (Current assets)	2,463
									Other (Investments and other assets)	39,200

Note: Transaction prices and other transaction terms are determined appropriately upon negotiation.

Principal transactions with related parties for the fiscal year ended March 31, 2023 are omitted as they were immaterial.

iii) Subsidiaries owned by the same parent company as the Company and subsidiaries of other related companies of the Company, etc.

Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

iv) Directors and major individual shareholders, etc. of the Company
Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

(2) Transactions between the consolidated subsidiaries of the Company and related parties

i) Parent company and major corporate shareholders, etc. of the Company
Principal transactions with related parties for the fiscal year ended March 31, 2022 are omitted as they were immaterial.

Principal transactions with related parties for the fiscal year ended March 31, 2023 were as follows:

Category	Company name	Location	Share capital	Details of business	Holding or held ratio	Relationship with the related party	Detail of transaction	Transaction amount (millions of yen)	Account	Ending balance (millions of yen)
Parent	Hon Hai Precision Industry Co., Ltd.	New Taipei City, Taiwan	NT $138,629 million	Electronic equipment contract manufacturing service	(Held) 22.3% Directly 11.8% Indirectly [23.2%]	Contract manufacturing, sale of products, purchase of raw materials and products	Contract manufacturing, sale of products	12,029	Accounts receivable	21,048
							Purchase of raw materials and products	25,600	Accounts payable	20,523

Notes: 1. Transaction prices and other transaction terms are determined appropriately through negotiation.
2. The holding or held ratio in brackets is not included in the figures above it and indicates the ratio held by the entities which are regarded to exercise their voting rights in the same manner as Hon Hai Precision Industry Co., Ltd. due to their close relationship.
3. The transaction amount of contract manufacturing is the net of product price less the amount of raw materials supplied.

ii) Nonconsolidated subsidiaries and affiliates, etc. of the Company
Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

iii) Subsidiaries owned by the same parent company as the Company and subsidiaries of other related companies of the Company, etc.
Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

iv) Directors and major individual shareholders, etc. of the Company
Principal transactions with related parties for the fiscal years ended March 31, 2022 and 2023 are omitted as they were immaterial.

(b) Information on the parent company and significant affiliates

(1) Information on the parent company

Hon Hai Precision Industry Co., Ltd. (Listed on the Taiwan Stock Exchange)

(2) Summary of financial statements of significant affiliated company

For the fiscal year ended March 31, 2022, the significant affiliated company was Sakai Display Products Corporation.

Summary of its financial statements was as follows:

	Yen (millions)
	2022
Current assets	¥ 250,385
Non-current assets	839,793
Current liabilities	270,524
Non-current liabilities	591,146
Net assets	228,507
Net sales	308,541
Profit before income taxes	11,891
Profit attributable to owners of parent	4,444

For the fiscal year ended March 31, 2023, the significant affiliated company was SDP Global (China) Co., Ltd.

Summary of its financial statements was as follows:

	Yen (millions)
	2023
Current assets	**¥ 155,107**
Non-current assets	**765,944**
Current liabilities	**187,975**
Non-current liabilities	**510,337**
Net assets	**222,738**
Net sales	**110,901**
Loss before income taxes	**(65,939)**
Loss	**(65,939)**

19. Per Share Data

Per share data as of March 31, 2022 and 2023 were as follows:

	Yen	
	2022	**2023**
Net assets per share	¥ 743.70	**¥ 321.05**
Income (loss) per share	121.14	**(407.31)**
Fully diluted income per share	—	**—**
	"Fully diluted income per share" is not stated because potentially dilutive shares existed but they had no dilutive effects.	**"Fully diluted income per share" is not stated because potentially dilutive shares existed but a loss per share was recorded.**

Income (loss) per share and fully diluted income per share as of March 31, 2022 and 2023 were calculated on the following basis:

	2022	**2023**
Income (loss) per share		
Profit (loss) attributable to owners of parent (millions of yen)	¥ 73,991	**¥ (260,840)**
Amounts not allocated to common shares (millions of yen)	—	**—**
Profit (loss) attributable to owners of parent allocated to common shares (millions of yen)	73,991	**(260,840)**
Average number of common shares outstanding during each year (thousands of shares)	610,799	**640,400**
Details of potentially dilutive shares that were not included in the calculation of fully diluted income per share because they have no dilutive effects	743 share acquisition rights resolved by the Board of Directors meeting on April 19, 2017 (First Share acquisition rights)	**720 share acquisition rights resolved by the Board of Directors meeting on April 19, 2017 (First Share acquisition rights)**
	381 share acquisition rights resolved by the Board of Directors meeting on September 26, 2017 (Second Share acquisition rights)	**381 share acquisition rights resolved by the Board of Directors meeting on September 26, 2017 (Second Share acquisition rights)**
	875 share acquisition rights resolved by the Board of Directors meeting on August 28, 2018 (Third Share acquisition rights)	**875 share acquisition rights resolved by the Board of Directors meeting on August 28, 2018 (Third Share acquisition rights)**
	A brief summary is in Note 13. Stock Options.	**A brief summary is in Note 13. Stock Options.**

20. Significant Subsequent Events

(a) Segment reclassification

In the fiscal year ended March 31, 2023, the Group operated in five reportable business segments: Smart Life, 8K Ecosystem, ICT, Display Device, and Electronic Device. Starting from the fiscal year ending March 31, 2024, the reportable business segments have been changed to the following five: Smart Life & Energy, Smart Office, Universal Network, Display Device, and Electronic Device.

This change is intended to reorganize the group structure of the brand businesses to clarify areas of focus and maximize synergies among businesses. The Company will speed up business transformation for renewed growth toward early materialization of new businesses.

With this segment reclassification, the Smart Appliances & Solutions business and Energy Solution business (formerly under Smart life) are now included in the Smart Life & Energy business segment. The Smart Business Solutions business (formerly under 8K Ecosystem) and the PC business (formerly under ICT) are included in the Smart Office business segment. The Smart Display Systems business (formerly under 8K Ecosystem) and the Mobile Communication business (formerly under ICT) are included in the Universal Network business segment. Additionally, the Smart Display Systems business is renamed as TV Systems business along with this segment reclassification.

Information on net sales, income (loss) of each reclassified reportable segment for the fiscal year ended March 31, 2023 was as follows.

	Yen (millions)
	2023
Net sales:	
Smart Life & Energy:	
Customers	**¥ 475,096**
Intersegment	**1,736**
Total	**476,832**
Smart Office:	
Customers	**556,380**
Intersegment	**5,388**
Total	**561,768**
Universal Network:	
Customers	**333,855**
Intersegment	**261**
Total	**334,116**
Display Device:	
Customers	**736,224**
Intersegment	**23,729**
Total	**759,953**
Electronic Device:	
Customers	**446,560**
Intersegment	**29,028**
Total	**475,589**
Adjustments	**(60,144)**
Consolidated net sales	**¥ 2,548,117**
Segment income (loss):	
Smart Life & Energy	**¥ 29,381**
Smart Office	**14,526**
Universal Network	**(7,807)**
Display Device	**(66,482)**
Electronic Device	**14,799**
Adjustments	**(10,137)**
Consolidated operating loss	**¥ (25,719)**

Adjustments of segment income (loss) of ¥(10,137) million included elimination of intersegment transactions of ¥(0) million and corporate expenses not allocated to each reportable segment of ¥(15,929) million. Corporate expenses were mainly attributable to basic R&D expenses and expenses related to the administrative groups of the Company's headquarters.

(b) Allotment of stock options (share acquisition rights)

The Company adopted a resolution at the Board of Directors meeting held on May 11, 2023, to submit a proposal at the Ordinary General Meeting of Shareholders held on June 27, 2023, that the Company be authorized to allot share acquisition rights as stock options to directors, executive officers and employees (hereinafter collectively called "Officers and Employees") of the Company and its subsidiaries and to delegate to its Board of Directors the determination of the subscription requirements of such share acquisition rights.

The proposal was approved at the same Ordinary General Meeting of Shareholders.

(1) Purpose of adopting the stock option plan

The Company implemented the stock option plan that would help the Company retain and recruit human resources required for the Company's revitalization and growth, and would serve as an incentive to increase their motivation to participate in the Group's business management and contribute to higher performance, as well as the increased corporate value of the Company. The Company will issue share acquisition rights as stock options as one of the types of remuneration for Officers and Employees of the Group.

(2) Class and number of shares to be issued upon exercise of share acquisition rights

The class of shares to be issued upon the exercise of share acquisition rights shall be common stock of the Company, and the maximum number of shares to be issued shall be 9,750,000.

If the Company splits or consolidates its common stock, the number of shares to be issued upon the exercise of share acquisition rights shall be adjusted.

(3) Total number of share acquisition rights to be allotted

The maximum number of share acquisition rights to be allotted shall be 97,500.

100 shares shall be issued per unit of share acquisition rights; provided that, in the event of any adjustment of the number of shares stipulated in (2) above, the number of shares to be issued per unit of share acquisition rights shall be adjusted accordingly. The date of allotment of share acquisition rights shall be determined by the Board of Directors, and the Board of Directors may make multiple allotments within the allotments up to the aforementioned maximum number of share acquisition rights.

(4) Cash payment for share acquisition rights

No cash payment is required for share acquisition rights.

(5) Value of assets to be contributed upon the exercise of share acquisition rights

The value of assets to be contributed upon the exercise of each share acquisition right shall be the value per share to be issued by the exercise of each share acquisition right (hereinafter, "Exercise Value") multiplied by the number of shares to be issued upon the exercise of one unit of share acquisition rights.

The Exercise Value shall be the closing price on the Tokyo Stock Exchange on the day immediately prior to the date of the resolution by the Board of Directors of the Company determining the subscription requirements of the share acquisition rights or the closing price on the date of the allotment, whichever is higher. If the Company splits or consolidates its common stock after the issuance of share acquisition rights, the Exercise Value shall be adjusted.

(6) Exercise period of share acquisition rights

The exercise period shall be from the second anniversary to the tenth anniversary of the allotment date. If the last day of the exercise period falls on a Company holiday, the final day shall be the working day immediately preceding the last day.

(7) Increase in capital due to the issuance of shares arising from the exercise of share acquisition rights

Amount of increase in capital as a result of issuing shares upon exercise of share acquisition rights shall be half of the upper limit of capital increase as calculated pursuant to the provisions of Article 17, Paragraph 1 of the Ordinance on Accounting of Companies, where any resultant fraction less than one yen shall be rounded up.

Consolidated Subsidiaries

(As of March 31, 2023)

Domestic

Sharp Marketing Japan Corporation
Sharp Energy Solutions Corporation
Sharp Yonago Corporation
Sharp Display Manufacturing Corporation
Sakai Display Products Corporation
Sharp Support & Service Corporation
ScienBiziP Japan Co., Ltd.
Dynabook Inc.
Kantatsu Co., Ltd.
Sharp Semiconductor Innovation Corporation
Sharp Fukuyama Laser Co., Ltd.
Sharp Cocoro Life Inc.
Sharp Display Technology Corporation
Sharp NEC Display Solutions, Ltd.
Sharp Sensing Technology Corporation

Overseas

<Countries and Areas>

Sharp Electronics Corporation <New Jersey, U.S.A.>
Sharp Laboratories of America, Inc. <Washington, U.S.A.>
Dynabook Americas, Inc. <Delaware, U.S.A.>
Sharp NEC Display Solutions of America, Inc. <Illinois, U.S.A.>
Sharp Electronics of Canada Ltd. <Ontario, Canada>
Sharp Corporation Mexico S.A. de C.V. <Mexico City, Mexico>
Sharp Electronics (Europe) Limited <Middlesex, U.K.>
Sharp Business Systems UK Plc. <Wakefield, U.K.>
Sharp International Finance (U.K.) Plc. <Middlesex, U.K.>
Sharp Electronics (Europe) GmbH <Hamburg, Germany>
Sharp Devices Europe GmbH <Munich, Germany>
Sharp NEC Display Solutions Europe GmbH <Munich, Germany>
Sharp Business Systems Deutschland GmbH <Cologne, Germany>
Dynabook Europe GmbH <Neuss, Germany>
Sharp Business Systems Sverige AB <Bromma, Sweden>
Sharp Electronics (Schweiz) AG <Rüschlikon, Switzerland>
Sharp Business Systems France S.A.S. <Toulouse, France>
Sharp Manufacturing France S.A. <Soultz, France>
Sharp Electronics Benelux B.V. <Utrecht, the Netherlands>
Sharp Consumer Electronics Poland Sp. z o.o. <Toruń, Poland>
Sharp Middle East Free Zone Establishment <Dubai, U.A.E.>
Sharp Universal Technology (Shenzhen) Co., Ltd. <Shenzhen, China>
Sharp NEC Display Solutions (China), Ltd. <Shenzhen, China>
Sharp Universal Technology (Shanghai) Co., Ltd. <Shanghai, China>
Shanghai Sharp Electronics Co., Ltd. <Shanghai, China>
Sharp Electronics Sales (China) Co., Ltd. <Shanghai, China>
Nanjing Sharp Electronics Co., Ltd. <Nanjing, China>
Sharp Office Equipments (Changshu) Co., Ltd. <Changshu, China>
Wuxi Sharp Electronic Components Co., Ltd. <Wuxi, China>
Wuxi Sharp Display Technology Co., Ltd. <Wuxi, China>
Pinghu Kantatsu Fine Technology Co., Ltd. <Pinghu, China>
Dynabook Technology (Hangzhou) Inc. <Hangzhou, China>
Yantai Xia Ye Electrons Co., Ltd. <Yantai, China>
Sharp Hong Kong Limited <Hong Kong>
Sharp (Taiwan) Electronics Corporation <New Taipei, Taiwan>
Dynabook Technology (Taiwan) Co., Ltd. <Taoyuan, Taiwan>
Cocorolife Co., Ltd. <New Taipei, Taiwan>
Sharp Electronics (Malaysia) Sdn. Bhd. <Selangor, Malaysia>
Sharp Manufacturing Corporation (M) Sdn. Bhd. <Johor, Malaysia>
Sharp North Malaysia Sdn. Bhd. <Kedah, Malaysia>
Sharp Singapore Electronics Corporation Pte. Ltd. <Singapore>
Sharp Appliances (Thailand) Ltd. <Chachoengsao, Thailand>
Sharp Manufacturing (Thailand) Co., Ltd. <Nakornpathom, Thailand>
Sharp Solar Solution Asia Co., Ltd. <Bangkok, Thailand>
P.T. Sharp Electronics Indonesia <West Jawa, Indonesia>
P.T. Sharp Semiconductor Indonesia <West Jawa, Indonesia>
SAIGON STEC Co.,LTD. <Thu Dau Mot, Vietnam>
Sharp Manufacturing Vietnam CO., LTD. <Tan Uyen, Vietnam>
Sharp Business Systems (India) Private Ltd. <New Delhi, India>
Sharp Corporation of Australia Pty. Ltd. <New South Wales, Australia>

* There are 53 other consolidated subsidiaries in addition to the companies listed above.

Corporate Information

(As of March 31, 2023)

Corporate Overview

Corporate Name	Sharp Corporation
Incorporation	May 1935 (Founding: September 1912)
Head Office	1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan
Capital Stock	5 billion yen
Employees	Consolidated: 46,200 Japan: 18,099 / Overseas: 28,101

Stock Information

Number of Shares Authorized	1,000,000,000
Number of Shares Issued	650,406,538
Number of Shareholders	180,212
Stock Exchange Listings	Tokyo

Principal Shareholders

	Number of shares held	Percentage of total shares (%)
HON HAI PRECISION INDUSTRY CO., LTD.	144,900,000	22.32
SIO INTERNATIONAL HOLDINGS LIMITED	85,884,845	13.23
FOXCCONN (FAR EAST) LIMITED	76,655,069	11.81
FOXCCONN TECHNOLOGY PTE. LTD.	64,640,000	9.96
CLEARSTREAM BANKING S. A.	38,864,993	5.99
The Master Trust Bank of Japan, Ltd. (Trust Account)	34,253,100	5.28
LGT BANK LTD	15,626,514	2.41
Custody Bank of Japan, Ltd. (Trust Account)	8,794,100	1.35
Nippon Life Insurance Company	4,731,738	0.73
Meiji Yasuda Life Insurance Company	4,578,100	0.71

Note: Percentage of total shares is calculated by the number of shares issued excluding 1,133,210 treasury shares.

Share Distribution (Proportion of total issued shares)

External recognitions

As of August 2023, Sharp has been included in the following indexes and recognitions.

- FTSE4Good Index Series
- FTSE Blossom Japan Index
- FTSE Blossom Japan Sector Relative Index
- S&P/JPX Carbon Efficient Index
- MSCI ESG Leaders Indexes
- MSCI Japan ESG Select Leaders Index

THE INCLUSION OF Sharp Corporation IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Sharp Corporation BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCIAND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

- EcoVadis Sustainability Rating

EcoVadis evaluates the sustainability performance of supplier companies. Its aim is to improve those companies' environmental and social practices by taking into account the impact that global supply chains have on the environment and society. Sharp has received a Silver rating from EcoVadis.

Investor Relations

Sharp Corporation Investor Relations Department

Tokyo Seavans South Building, 1-2-3 Shibaura, Minato-ku, Tokyo 105-0023, Japan
Phone: +81-50-5358-0980

Osaka 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan

Websites
Japanese https://corporate.jp.sharp/ir/index.html
English https://global.sharp/corporate/ir/index.html

Attachment 7
Sharp's Experience Modification Rating

Mina Cho
Vice President

Marsh USA Inc.
1166 Avenue of the Americas
New York, NY 10036-2774
+1 212 345 3653
Mina.cho@marsh.com
www.marsh.com

Sharp Electronics Corporation
100 Paragon Drive
Montvale, NJ 07645

5/30/2024

Subject:
Experience Modification
Rating

To Whom It May Concern:

Please see below for Sharp Electronics Corporation's Experience Ratings:

Effective 6/1/2024
NCCI – .80
CA – 1.01
MI - .85
NJ - .825

Effective 6/1/2023
NCCI – .90
CA – 1.14
MI- .85
NJ- .898

Effective 6/1/2022
NCCI – .91
CA – 1.11
NJ – 1.021

Effective 6/1/2021
NCCI - 1.45
CA - .79
MI - .95
NJ - .994

Should you have any questions, or comments please do not hesitate to contact us.

Sincerely,
Mina Cho
Vice President

Attachment 8
MWBE Texas Dealer List

Attachment 1 M-W-B-DV Dealers

Account Name	DV	W	SB	M	State
Allen Young Office Machines	x				TX
ARCHER BUSINESS SYSTEMS INC			x		TX
AUSTIN TECHNOLOGY GROUP			x		TX
COMPLETE OFFICE TECHNOLOGIES		x	x	x	TX
HOGLAND OFFICE EQUIPMENT			x		TX
Integrated Business Technologies, Incorporated	x				TX
KNIGHT OFFICE SOLUTIONS INC			x		TX
MF Dallas LLC		x		x	TX
PLATINUM COPIER SOLUTIONS INC		x		x	TX
Smart Office Automation		x			TX
SOUTHWEST OFFICE SYSTEMS INC		x		x	TX
SPECTRUM TECHNOLOGIES INC			x	x	TX
Tascosa Office Solutions			x		TX
TEXAS BUSINESS SYSTEMS INC			x		TX
TEXAS DOCUMENT SOLUTIONS INC			x		TX

Attachment 9
MWBE National
Dealer List

Account Name	DV	W	SB	M	State
A OK OFFICE SYSTEMS INC	x		X		OK
ABERDEEN OFFICE EQUIPMENT INC			x		WA
ACTIVE OFFICE SOLUTIONS LLC				x	IL
AD SOLUTIONS		x		x	FL
ADVANCED COPIERS & PRINTERS INC			x	x	CA
AE TOUCH TECHNOLOGIES				x	LA
Alexander Printing Co., Inc.		x			GA
Allen Young Office Machines	x				TX
AM COPIER SERVICE		x		x	CA
ARCHER BUSINESS SYSTEMS INC			x		TX
ATLANTIC OFFICE AUTOMATION				x	CA
AUSTIN TECHNOLOGY GROUP			x		TX
Axis Business Consultants		x			PA
B & C Business Products		x		x	OK
BARLOP BUSINESS SYSTEMS INC		x		x	FL
BBE SOLUTIONS	x				TN
BMC INC			x		CA
C3 TECH		x		x	CA
CALTRONICS BUSINESS SYSTEMS				x	CA
Century Business Technologies		x			KS
CHATTANOOGA BUSINESS MACHINES INC		x			TN
Choice Technical Services, Inc	x				CA
COASTAL BUSINESS SYSTEMS INC			x		CA
COMMON SENSE BUSINESS SOLUTIONS INC		x		x	CA
COMPLETE OFFICE TECHNOLOGIES		x	x	x	TX
COPIER EXPO INC				x	CA
COPYWRITE OF NORTH MISSISSIPPI INC	x				MS
Definitive Technology Solutions, Inc.			x		MN
Delaware Business Systems		x			NY
DIGITAL IMAGING SOLUTIONS (WA)		x	x		WA
DIGITAL OFFICE SOLUTIONS INC				x	MI
DOCUMENT SOLUTIONS INC		x	x	x	NM
DOING BETTER BUSINESS, INC.		x			PA
Eastern Office Supply of Upstate NY, Inc		x			NY
EBE OFFICE SOURCE		x			NY
Forrest Office Machines Inc		x			AR
FRONTIER BUSINESS PRODUCTS		x			CO
HEARTLAND OFFICE SYSTEMS		x			KS
HOGLAND OFFICE EQUIPMENT			x		TX
Integrated Business Technologies, Incorporated	x				TX
INTEGRATED TECHOLOGIES			x		ID
Intrinsic Technology Solutions, Inc.		x			NY
KNIGHT OFFICE SOLUTIONS INC			x		TX
LOGAN BUSINESS MACHINES	x		x		KS
MF Dallas LLC		x		x	TX
MOS OFFICE SYSTEMS		x			OH
NUBE Group		x		x	NM
Office Machines Company		x			MI
ONE OFFICE SOLUTION		x	x		NE
OZARK BUSINESS SYSTEMS			x		MO
Piazza Office Supply Inc	x				LA
PIKE BUSINESS MACHINES INC		x			MS
PLATINUM COPIER SOLUTIONS INC		x		x	TX
POWERS BUSINESS MACHINES INC		x	x		VA
PRECISION COPY PRODUCTS INC		x			PA
RITE TECHNOLOGY INC		x			FL
SCHOON CORPORATION		x			CA
Smart Office Automation		x			TX
SOUTHERN OFFICE SUPPLY			x		KS
Southern Office Support Corporation		x			TN
SOUTHWEST COPY SYSTEMS INC			x		NM
SOUTHWEST OFFICE SYSTEMS INC		x		x	TX
SPECTRUM TECHNOLOGIES INC			x	x	TX
STERLING BUSINESS MACHINES		x			IL
Tascosa Office Solutions			x		TX
TEXAS BUSINESS SYSTEMS INC			x		TX
TEXAS DOCUMENT SOLUTIONS INC			x		TX
THE OFFICE PEOPLE		x			SC
THE OFFICE TECHNOLOGY GROUP INC		x			WI
THE PERFORMANCE GROUP			x		CA
THE WILSON GROUP LLC		x		x	PA
TOTAL CORPORATE SOLUTIONS				x	CA
VELOCITY IMAGING PRODUCTS INC		x	x	x	CA
WATTS COPY SYSTEMS INC		x			IL
Williams Office Products	x	x			IL
XCEL BUSINESS SOLUTIONS			x		OK
YOUNG SYSTEMS CORPORATION				x	CA

MFP Retail Price List

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-B350P / MX-B450P	
	MX Monochrome Series Document Systems	
MX-B350P	35 PPM Desktop Monochrome Printer Base models include 5 Line LCD operation panel, wireless and wired connectivity, PCL® 6 and Adobe® PostScript® 3™ printing systems, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 images/cartridge). **LIMITED AVAILABILITY.**	$1,240.00
	Options*	
MX-CS14N	1 x 600-sheet Paper Drawer	$255.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP BP-B540WR / BP-B550WD	
	MX Monochrome Series Document Systems	
BP-B540WR	40 PPM Desktop Monochrome Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 50-sheet RSPF, PCL 6 and Adobe PostScript® 3™ printing systems, network scanning, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 images/cartridge).	$4,545.00
BP-B550WD	50 PPM Desktop Monochrome Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 100-sheet DSPF, PCL 6 and Adobe PostScript® 3™ printing systems, network scanning, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 images/cartridge).	$5,665.00
	Options*	
BP-CS12	1 x 600-sheet Paper Drawer	$255.00
BP-FN17	Inner Finisher	$1,510.00
MX-FWX1L	Internet Fax Expansion Kit	$570.00
MX-PF10	Bar Code Font Kit	$660.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-B427W / MX-B427PW	
	MX Monochrome Series Document Systems	
MX-B427W	42 PPM Desktop Monochrome Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 50-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 1 x 250-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 3,000 images/cartridge).	$2,020.00
MX-B427PW	42 PPM Desktop Monochrome Printer Base models include 2-line LCD control panel, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 250-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 3,000 images/cartridge).	$965.00
	Options*	
MX-CS26	550-Sheet Tray	$490.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-B468F / MX-B468P	
	MX Monochrome Series Document Systems	
MX-B468F	46 PPM Desktop Monochrome Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 100-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 1 x 550-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 5,000 images/cartridge).	$2,805.00
MX-B468P	46 PPM Desktop Monochrome Printer Base models include 2.4-inch control panel, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 250-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 5,000 images/cartridge).	$1,399.00
	Options*	
MX-CS31	250-Sheet Tray	$405.00
MX-CS32	550-Sheet Tray	$620.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-B557P / MX-B707P	
	MX Monochrome Series Document Systems	
MX-B557P	55 PPM Desktop Monochrome Printer Base models include multitasking controller, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 550-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 11,000 images/cartridge).	$2,980.00
MX-B707P	70 PPM Desktop Monochrome Printer Base models include multitasking controller, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 550-sheet paper drawer, 100-sheet bypass tray. Drum and starter toner included (starter toner estimated yield: 11,000 images/cartridge).	$5,085.00
	Options*	
MX-CS21	250-Sheet Tray	$555.00
MX-CS23	550-Sheet Tray	$790.00
MX-CS25	2,100-Sheet Tray	$1,385.00
MX-FN38	Staple Finisher	$830.00
MX-FN39	Staple, Hole Punch Finisher	$1,830.00
MX-MS10	4-Bin Mailbox	$830.00
MX-TR22	Output Expander	$415.00
MX-TR23	High Capacity Output Expander	$1,395.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-B557F	
	MX Monochrome Series Document System	
MX-B557F	55 PPM Desktop Monochrome Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 200-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 2 x 550-sheet paper drawer, 100-sheet bypass tray, and caster base. Drum and starter toner included (starter toner estimated yield: 11,000 images/cartridge).	$9,820.00
	Options*	
MX-CS22	550-Sheet Tray	$760.00
MX-CS24	2,100-Sheet Tray	$1,525.00
MX-FN38	Staple Finisher	$830.00
MX-FN39	Staple, Hole Punch Finisher	$1,830.00
MX-MS10	4-Bin Mailbox	$830.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP BP-C535WR / BP-C535WD / BP-C545WD	
	A4 BP Color Series Document Systems	
BP-C535WR	35 PPM A4 Color Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 50-sheet RSPF, PCL 6 and Adobe PostScript® 3™ printing systems, network scanning, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 impressions).	$5,799.00
BP-C535WD	35 PPM A4 Color Multi-Function Document System (optional finisher) Copier, Printer, Scanner, Fax Base models include multitasking controller, 100-sheet DSPF, PCL 6 and Adobe PostScript® 3™ printing systems, network scanning, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 impressions).	$5,999.00
BP-C545WD	45 PPM A4 Color Multi-Function Document System (optional finisher) Copier, Printer, Scanner, Fax Base models include multitasking controller, 100-sheet DSPF, PCL 6 and Adobe PostScript® 3™ printing systems, network scanning, auto duplexing, 1 x 500-sheet paper drawer, 50-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 1,200 impressions).	$6,999.00
	Options*	
BP-CS12	1 x 600-sheet Paper Drawer	$255.00
BP-FN17	Inner Finisher	$1,510.00
BP-XB10	Anti Tip Kit	$115.00
MX-FWX1L	Internet Fax Expansion Kit	$570.00
MX-PF10	Bar Code Font Kit	$660.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
MX-EB19L	Compact PDF Enhanced Compression Kit (for BP-B535WR ONLY)	$600.00
MX-EB20L	OCR Expansion Kit (for BP-B535WR ONLY)	$300.00
MX-PU10L	Direct Print Expansion Kit (for BP-B535WR ONLY)	$1,000.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-C358F / MX-C428P	
	MX Color Series Document Systems	
MX-C358F	35 PPM Desktop Color Multi-Function Document System Copier, Printer, Scanner, Fax Base models include multitasking controller, 100-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 1 x 250-sheet paper drawer, 1-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 3,000 images/cartridge color/ 5,000 images/cartridge black).	$4,205.00
MX-C428P	42 PPM Desktop Color Printer Base models include multitasking controller, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 250-sheet paper drawer, 1-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 3,000 images/cartridge color/ 5,000 images/cartridge black).	$2,439.00
	Options*	
MX-CS29	550 Sheet Tray	$590.00
MX-CS30	650 Sheet Duo Tray	$590.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-C428F / MX-C528F / MX-C528P	
	MX Color Series Document Systems	
MX-C428F	42 PPM Desktop Color Multifunction Document System Copier, Printer, Scanner, Fax Base models include a multitasking controller, 100-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 1 x 550-sheet paper drawer, and 100-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 5,000 images/cartridge).	$4,699.00
MX-C528F	52 PPM Desktop Color Multifunction Document System Copier, Printer, Scanner, Fax Base models include a multitasking controller, 100-sheet DSPF, PCL 6 and PostScript® 3™ compatible printing systems, network scanning, auto duplexing, 1 x 550-sheet paper drawer, and a 100-sheet bypass tray. Hard Drive Standard. Drum, developer and starter toner included (starter toner estimated yield: 5,000 images/cartridge).	$7,249.00
MX-C528P	52 PPM Desktop Color Printer Base models include multitasking controller, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 550-sheet paper drawer, 100-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 5,000 images/cartridge).	$2,979.00
	Options*	
MX-CS17	550-sheet Tray	$905.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP MX-C607P	
	MX Color Series Document System	
MX-C607P	60 PPM Desktop Color Printer Base models include multitasking controller, PCL® 6 and PostScript® 3™ compatible printing systems, auto duplexing, 1 x 550-sheet paper drawer, 100-sheet bypass tray. Drum, developer and starter toner included (starter toner estimated yield: 8,000 images/cartridge).	$4,540.00
	Options*	
MX-CS16	550-Sheet Tray	$905.00
MX-CS19	2,200-Sheet Tray	$2,690.00
MX-FN37	Inline Staple Finisher	$1,045.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP BP-50M26 / BP-50M31 / BP-50M36 / BP-50M45 / BP-50M55 / BP-50M65	
	Essentials Series Monochrome Document Systems	
BP-50M26	26 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$7,270.00
BP-50M31	31 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$8,915.00
BP-50M36	36 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$11,000.00
BP-50M45	45 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$11,580.00
BP-50M55	55 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$12,445.00
BP-50M65	65 PPM B&W Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature.	$14,475.00
	Options*	
BP-DE12	Stand/1 x 550-sheet Paper Drawer	$975.00
BP-DE13	Stand/2 x 550-sheet Paper Drawers	$1,250.00
BP-DE14	Stand/3 x 550-sheet Paper Drawers	$1,740.00
BP-DE15	Stand/1 x 550 + 2,100-sheet Split Tandem Paper Drawers	$2,210.00
BP-LC10	3,000-sheet Large Capacity Cassette (letter, requires BP-DE12/DE13/DE14/DE15)	$1,740.00
MX-LT10	Long Paper Feeding Tray (for use with banner paper)	$220.00
BP-FN11	50-sheet Staple Inner Finisher (for 26/31/36/45/55 ppm models)	$2,210.00
BP-FN12	50-sheet Staple Inner Finisher (for 65 ppm model)	$2,210.00
BP-FN13	1K Stacking 50-sheet Staple Finisher	$2,870.00
BP-FN14	1K Stacking 50-sheet Staple/Saddle Stitch Finisher	$3,370.00
BP-FN15	3K Stacking 65-sheet Staple Finisher	$3,370.00
BP-FN16	3K Stacking 65-sheet Staple/Saddle Stitch Finisher	$6,630.00
BP-FD10	Inner Folding Unit (can be combined with BP-FN13/FN14/FN15/FN16)	$2,100.00
MX-PN14B	3-Hole Punch Unit (requires BP-FN11/FN12)	$775.00
MX-PN15B	3-Hole Punch Unit (requires BP-FN13/FN14)	$775.00
MX-PN16B	3-Hole Punch Unit (requires BP-FN15/FN16)	$775.00
BP-RB10	Paper Pass Unit (required for BP-FN13/FN14/FN15/FN16)	$495.00
BP-TR12	Right Side Exit Tray	$180.00
MX-TR20N	Job Separator	$60.00
BP-TU10	Center Exit Tray (required if no finisher installed)	$90.00
BP-UT10	Utility Table (recommended for Sharp MFP Voice function)	$180.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-EB10	Wireless LAN Adapter	$440.00
MX-EB19L	Compact PDF Kit	$600.00
MX-EB20L	OCR Expansion Kit	$300.00
BP-FX11	Fax Expansion Kit	$1,500.00
MX-FWX1L	Internet Fax Expansion Kit (Fax-to-Email)	$570.00
MX-PF10	Bar Code Font Kit	$660.00
MX-PK13L	Adobe® PostScript® 3™ Expansion Kit	$780.00
MX-PU10L	Direct Print Expansion Kit (for Microsoft® Office file formats)	$1,000.00
BP-AM10L	Application Communication Module	$385.00
BP-AM11L	External Account Module	$210.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Description	Suggested Retail Price
	SHARP BP-70M31 / BP-70M36 / BP-70M45 / BP-70M55 / BP-70M65	
	Advanced Series Monochrome Document Systems	
BP-70M31	31 PPM B&W Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray.	$10,510.00
BP-70M36	36 PPM B&W Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray.	$12,590.00
BP-70M45	45 PPM B&W Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray.	$14,300.00
BP-70M55	55 PPM B&W Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray.	$14,760.00
BP-70M65	65 PPM B&W Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray.	$19,105.00
	Options*	
BP-DD10	Double Feed Detection Unit	$325.00
BP-DE12	Stand/1 x 550-sheet Paper Drawer	$975.00
BP-DE13	Stand/2 x 550-sheet Paper Drawers	$1,250.00
BP-DE14	Stand/3 x 550-sheet Paper Drawers	$1,740.00
BP-DE15	Stand/1 x 550 + 2,100-sheet Split Tandem Paper Drawers	$2,210.00
BP-LC10	3,000-sheet Large Capacity Cassette (letter, requires BP-DE12/DE13/DE14/DE15)	$1,740.00
MX-LT10	Long Paper Feeding Tray (for use with banner paper)	$220.00
BP-FN11	50-sheet Staple Inner Finisher (for 31/36/45/55 ppm models)	$2,210.00
BP-FN12	50-sheet Staple Inner Finisher (for 65 ppm model)	$2,210.00
BP-FN13	1K Stacking 50-sheet Staple Finisher	$2,870.00
BP-FN14	1K Stacking 50-sheet Staple/Saddle Stitch Finisher	$3,370.00
BP-FN15	3K Stacking 65-sheet Staple Finisher	$3,370.00
BP-FN16	3K Stacking 65-sheet Staple/Saddle Stitch Finisher	$6,630.00
BP-FD10	Inner Folding Unit (can be combined with BP-FN13/FN14/FN15/FN16)	$2,100.00
MX-PN14B	3-Hole Punch Unit (requires BP-FN11/FN12)	$775.00
MX-PN15B	3-Hole Punch Unit (requires BP-FN13/FN14)	$775.00
MX-PN16B	3-Hole Punch Unit (requires BP-FN15/FN16)	$775.00
BP-RB10	Paper Pass Unit (required for BP-FN13/FN14/FN15/FN16)	$495.00
BP-TR12	Right Side Exit Tray	$180.00
MX-TR20N	Job Separator	$60.00
BP-TU10	Center Exit Tray (required if no finisher installed)	$90.00
BP-UT10	Utility Table (recommended for Sharp MFP Voice function)	$180.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-FX11	Fax Expansion Kit	$1,500.00
MX-FWX1L	Internet Fax Kit	$570.00
MX-PF10	Bar Code Font Kit	$660.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

SHARP

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Product Code	Description	Suggested Retail Price
	SHARP BP-70M75 / BP-70M90	
	High Volume Monochrome Workgroup Document System	
BP-70M75	75 PPM Monochrome Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe PostScript 3 printing systems, network printing, network scanning, 300-sheet duplexing single pass feeder, auto duplexing, 3,200-sheet paper capacity (2,100-sheet tandem tray/2 x 500-sheet trays/100-sheet bypass tray). Standard security with End-of-Lease feature.	$31,435.00
BP-70M90	90 PPM Monochrome Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe PostScript 3 printing systems, network printing, network scanning, 300-sheet duplexing single pass feeder, auto duplexing, 3,200-sheet paper capacity (2,100-sheet tandem tray/2 x 500-sheet trays/100-sheet bypass tray). Standard security with End-of-Lease feature.	$35,750.00
	Options*	
BP-DD10	Double Feed Detection Unit	$325.00
BP-LC11	3,500-sheet Large Capacity Cassette (Letter)	$1,740.00
MX-LC19	3,000-sheet Large Capacity Cassette (Letter, Letter-R, Legal, Ledger or 12" x 18")	$3,210.00
MX-LT10	Long Paper Feeding Tray (for use with Banner Paper)	$220.00
MX-FN34	3K Stacking 65-sheet Staple Finisher (requires MX-RB26)	$3,210.00
MX-FN35	3K Stacking 65-sheet Staple/20-sheet Saddle Stitch Finisher (requires MX-RB26)	$6,315.00
MX-FN21	4K Stacking 100-sheet Staple Finisher (requires MX-RB26 and MX-RB27)	$7,945.00
MX-FN22	4K Stacking 100-sheet Staple/20-sheet Saddle Stitch Finisher (requires MX-RB26 and MX-RB27)	$11,285.00
MX-CF11	2-tray Inserter Unit (requires optional equipment - please refer to Configuration Chart)	$4,065.00
MX-FD10	Multi-folding Unit (requires MX-RB26 and MX-RB27; and MX-FN21 or MX-FN22)	$16,525.00
MX-RB13	Relay Unit (requires optional equipment - please refer to Configuration Chart)	$1,200.00
MX-RB26	Paper Pass Unit (required for all configurations with external finishers)	$470.00
MX-RB27	Curl Correction Unit (required for MX-FN21 and MX-FN22)	$1,200.00
MX-TM10	Trimmer Unit (requires MX-FN22)	$7,055.00
MX-PN16B	3-Hole Punch Unit (for use with MX-FN34 and MX-FN35)	$775.00
MX-PN13B	3-Hole Punch Unit (for use with MX-FN21 and MX-FN22)	$995.00
MX-TR21	Right Side Exit Tray	$170.00
MX-TU15	Center Exit Tray (required if no finishing options are selected)	$85.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
MX-PF10	Barcode Font Kit	$660.00
BP-FX11	Facsimile Expansion Kit	$1,500.00
MX-FWX1L	Internet Fax (i-Fax) Expansion Kit	$570.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

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Product Code	Description	Suggested Retail Price
	SHARP MX-M1056 / MX-M1206	
	Pro Series Monochrome Document Systems	
MX-M1056	105 PPM High Speed Monochrome Document System Base models include 15.4" control panel, 300-sheet/150-business card DSPF, 3,000-sheet paper capacity (2,000-sheet tandem drawer/2 x 500-sheet drawers), swing out keyboard, 1TB hard disk drive, PCL 6/Adobe PostScript 3 network printing, color network scanning, and Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules. Standard security with End-of-Lease data erase feature.	$44,250.00
MX-M1206	120 PPM High Speed Monochrome Document System Base models include 15.4" control panel, 300-sheet/150-business card DSPF, 3,000-sheet paper capacity (2,000-sheet tandem drawer/2 x 500-sheet drawers), swing out keyboard, 1TB hard disk drive, PCL 6/Adobe PostScript 3 network printing, color network scanning, and Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules. Standard security with End-of-Lease data erase feature.	$55,900.00
	Options*	
MX-LC12	3,500-sheet Large Capacity Cassette (Letter; requires MX-MFX1)	$1,655.00
MX-LC13N	5,000-sheet Large Capacity 2-Drawer Air Feed Tray (Letter, Letter-R, Legal or Ledger; requires MX-RB16)	$7,055.00
MX-MFX1	100-sheet Multi-bypass Tray (for machine)	$1,545.00
MX-MF11	500-sheet Multi-bypass Tray (requires MX-LC13N)	$1,855.00
MX-FN21	100-sheet Staple Finisher (4,000-sheet output capacity; requires MX-RB18)	$7,945.00
MX-FN22	100-sheet Staple/20-sheet Saddle Stitch Finisher (4,000-sheet output capacity; requires MX-RB18)	$11,285.00
MX-CF11	2-tray Inserter Unit (requires optional equipment - please refer to Configuration Chart)	$4,065.00
MX-FD10	Multi-folding Unit (requires MX-RB18, and MX-FN21 or MX-FN22)	$16,525.00
MX-RB13	Relay Unit (requires optional equipment - please refer to Configuration Chart)	$1,200.00
MX-RB16	LCT Mounting Kit (required for MX-LC13N)	$370.00
MX-RB17	LCT Tandem Connecting Kit (required for connecting 2 MX-LC13Ns)	$2,105.00
MX-RB18	Curl Correction Unit (required for MX-FN21 and MX-FN22)	$1,200.00
MX-TM10	Face Trimmer Unit (requires MX-FN22)	$7,055.00
MX-PN13B	3-Hole Punch Unit (for use with MX-FN21 and MX-FN22)	$995.00
MX-GBCP3	GBC SmartPunch Plus (requires Die Set and MX-RB13)	$18,750.00
MX-GBCP19	Comb Bind Die (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP51HD	Comb Bind HD Die (for GBC SmartPunch Plus)	$4,325.00
MX-GBCP32SQ	Twin Loop Die 32 SQ (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP21SQ	Twin Loop Die 21 SQ (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP32RND	Twin Loop Die 32 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP21RND	Twin Loop Die 21 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP44RND	Color Coil Die 44 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP52HD	Color Coil Die 44 RND HD (for GBC SmartPunch Plus)	$4,100.00
MX-GBCP44OVL	Color Coil Die 44 OVL (for GBC SmartPunch Plus)	$3,150.00
MX-GBCP11	Velobind Die 11 Hole (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP03	3-Hole Punch Die (for GBC SmartPunch Plus)	$1,350.00
MX-GBCP53HD	3-Hole Punch Die HD (for GBC SmartPunch Plus)	$2,500.00
MX-GBCP357	3/5/7-Hole Punch Die (for GBC SmartPunch Plus)	$1,350.00
MX-GBCPCR	Creasing Die (for GBC SmartPunch Plus)	$3,900.00
MX-GBCPPF12	Perforation Die 12 TPI (for GBC SmartPunch Plus)	$3,400.00
MX-GBCPPF9	Perforation Die 9 TPI (for GBC SmartPunch Plus)	$3,400.00
MX-BM50	Plockmatic Booklet Maker + Interface Kit (requires MX-FN21)	$20,315.00
MX-TM50	Plockmatic Face Trimmer Module	$14,210.00
MX-FD50	Plockmatic Square Fold Module (requires MX-TM50)	$14,210.00
MX-CF50	Plockmatic Cover Feeder	$5,475.00
MX-XB50	Plockmatic Rail Unit	$525.00
MX-PF10	Barcode Font Kit	$660.00
MX-FR66U	Data Security Kit	$775.00
MX-SL10N	Status Indicator	$710.00
MX-PE16	Fiery Print Server (requires MX-PX16)	$9,900.00
MX-PX16	Fiery Interface Kit (required for MX-PE16)	$3,475.00
MX-PEFIS	Fiery Impose Software	$3,400.00
MX-PEFC	Fiery Compose Software	$1,550.00
MX-PEIC	Fiery Impose + Fiery Compose Software Bundle	$4,330.00
MX-PEJM1	Fiery JobMaster Software (includes MX-PEJMM 1-year SMSA)	$6,240.00
MX-PEJI1	Fiery JobMaster + Fiery Impose Software Bundle (includes MX-PEJIM 1-year SMSA)	$8,810.00
MX-PEJF1	Fiery JobFlow Software (includes MX-PEJFM 1-year SMSA)	$8,140.00
MX-PEIVB	Fiery Image Viewer for Black and White Software	$3,400.00
MX-PEJMM	Fiery JobMaster 1-year Software Maintenance and Support Agreement (SMSA) (available for MX-PEJM1)	$1,370.00
MX-PEJIM	Fiery JobMaster + Impose 1-year Software Maintenance and Support Agreement (SMSA) (avail. for MX-PEJI1)	$1,895.00
MX-PEJFM	Fiery JobFlow 1-year Software Maintenance and Support Agreement (SMSA) (available for MX-PEJF1)	$1,895.00
MX-PEAAEP	Adobe Acrobat Pro 2017 + Enfocus PitStop Edit 2019 - **NO LONGER AVAILABLE.**	~~$670.00~~
MX-PESP3	EFI ES-3000 Spectrophotometer	$1,855.00
MX-PEHD16	EFI Removable Hard Disk Drive Kit for MX-PE16	$2,680.00
	* Please refer to the product configuration chart before placing your order.	

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Product Code	Description	Suggested Retail Price
	SHARP BP-50C26 / BP-50C31 / BP-50C36 / BP-50C45 / BP-50C55 / BP-50C65	
	Essentials Series Color Document Systems	
BP-50C26	26 PPM B&W / 26 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$7,740.00
BP-50C31	31 PPM B&W / 31 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$10,635.00
BP-50C36	36 PPM B&W / 36 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$13,675.00
BP-50C45	45 PPM B&W / 45 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$16,715.00
BP-50C55	55 PPM B&W / 55 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$19,145.00
BP-50C65	65 PPM B&W / 65 PPM Full-Color Workgroup Document System Base models include multitasking 128 GB SSD with document filing system, PCL 6 printing system, network printing, network scanning, 100-sheet reversing single-pass feeder, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Standard Security with End-of-Lease feature. Black and color developer is preinstalled in the machine.	$21,585.00
	Options*	
BP-DE12	Stand/1 x 550-sheet Paper Drawer	$975.00
BP-DE13	Stand/2 x 550-sheet Paper Drawers	$1,250.00
BP-DE14	Stand/3 x 550-sheet Paper Drawers	$1,740.00
BP-DE15	Stand/1 x 550 + 2,100-sheet Split Tandem Paper Drawers	$2,210.00
BP-LC10	3,000-sheet Large Capacity Cassette (letter, requires BP-DE12/DE13/DE14/DE15)	$1,740.00
MX-LT10	Long Paper Feeding Tray (for use with banner paper)	$220.00
BP-FN11	50-sheet Staple Inner Finisher (for 26/31/36/45/55 ppm models)	$2,210.00
BP-FN12	50-sheet Staple Inner Finisher (for 65 ppm model)	$2,210.00
BP-FN13	1K Stacking 50-sheet Staple Finisher	$2,870.00
BP-FN14	1K Stacking 50-sheet Staple/Saddle Stitch Finisher	$3,370.00
BP-FN15	3K Stacking 65-sheet Staple Finisher	$3,370.00
BP-FN16	3K Stacking 65-sheet Staple/Saddle Stitch Finisher	$6,630.00
BP-FD10	Inner Folding Unit (can be combined with BP-FN13/FN14/FN15/FN16)	$2,100.00
MX-PN14B	3-Hole Punch Unit (requires BP-FN11/FN12)	$775.00
MX-PN15B	3-Hole Punch Unit (requires BP-FN13/FN14)	$775.00
MX-PN16B	3-Hole Punch Unit (requires BP-FN15/FN16)	$775.00
BP-RB10	Paper Pass Unit (required for BP-FN13/FN14/FN15/FN16)	$495.00
BP-TR12	Right Side Exit Tray	$180.00
MX-TR20N	Job Separator	$60.00
BP-TU10	Center Exit Tray (required if no finisher installed)	$90.00
BP-UT10	Utility Table (recommended for Sharp MFP Voice function)	$180.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-EB10	Wireless LAN Adapter	$440.00
MX-EB19L	Compact PDF Kit	$600.00
MX-EB20L	OCR Expansion Kit	$300.00
BP-FX11	Fax Expansion Kit	$1,500.00
MX-FWX1L	Internet Fax Expansion Kit (Fax-to-Email)	$570.00
MX-PF10	Bar Code Font Kit	$660.00
MX-PK13L	Adobe® PostScript® 3™ Expansion Kit	$780.00
MX-PU10L	Direct Print Expansion Kit (for Microsoft® Office file formats)	$1,000.00
BP-AM10L	Application Communication Module	$385.00
BP-AM11L	External Account Module	$210.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

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Product Code	Description	Suggested Retail Price
	SHARP BP-70C31 / BP-70C36 / BP-70C45 / BP-70C55 / BP-70C65	
	Advanced Series Color Document Systems	
BP-70C31	31 PPM B&W / 31 PPM Full-Color Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Black and color developer is preinstalled in the machine.	$14,285.00
BP-70C36	36 PPM B&W / 36 PPM Full-Color Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Black and color developer is preinstalled in the machine.	$17,325.00
BP-70C45	45 PPM B&W / 45 PPM Full-Color Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Black and color developer is preinstalled in the machine.	$20,365.00
BP-70C55	55 PPM B&W / 55 PPM Full-Color Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Black and color developer is preinstalled in the machine.	$22,795.00
BP-70C65	65 PPM B&W / 65 PPM Full-Color Workgroup Document System Base models include walk-up motion sensor, wireless connectivity, multitasking controller, retractable keyboard, Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting modules, 256 GB SSD with document filing system, PCL 6 and Adobe® PostScript® 3™ network printing systems, network scanning, 300-sheet DSPF, auto duplexing, 550-sheet paper drawer and 100-sheet bypass tray. Black and color developer is preinstalled in the machine.	$25,225.00
	Options*	
BP-DD10	Double Feed Detection Unit	$325.00
BP-DE12	Stand/1 x 550-sheet Paper Drawer	$975.00
BP-DE13	Stand/2 x 550-sheet Paper Drawers	$1,250.00
BP-DE14	Stand/3 x 550-sheet Paper Drawers	$1,740.00
BP-DE15	Stand/1 x 550 + 2,100-sheet Split Tandem Paper Drawers	$2,210.00
BP-LC10	3,000-sheet Large Capacity Cassette (letter, requires BP-DE12/DE13/DE14/DE15)	$1,740.00
MX-LT10	Long Paper Feeding Tray (for use with banner paper)	$220.00
BP-FN11	50-sheet Staple Inner Finisher (for 31/36/45/55 ppm models)	$2,210.00
BP-FN12	50-sheet Staple Inner Finisher (for 65 ppm model)	$2,210.00
BP-FN13	1K Stacking 50-sheet Staple Finisher	$2,870.00
BP-FN14	1K Stacking 50-sheet Staple/Saddle Stitch Finisher	$3,370.00
BP-FN15	3K Stacking 65-sheet Staple Finisher	$3,370.00
BP-FN16	3K Stacking 65-sheet Staple/Saddle Stitch Finisher	$6,630.00
BP-FD10	Inner Folding Unit (can be combined with BP-FN13/FN14/FN15/FN16)	$2,100.00
MX-PN14B	3-Hole Punch Unit (requires BP-FN11/FN12)	$775.00
MX-PN15B	3-Hole Punch Unit (requires BP-FN13/FN14)	$775.00
MX-PN16B	3-Hole Punch Unit (requires BP-FN15/FN16)	$775.00
BP-RB10	Paper Pass Unit (required for BP-FN13/FN14/FN15/FN16)	$495.00
BP-TR12	Right Side Exit Tray	$180.00
MX-TR20N	Job Separator	$60.00
BP-TU10	Center Exit Tray (required if no finisher installed)	$90.00
BP-UT10	Utility Table (recommended for Sharp MFP Voice function)	$180.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-FX11	Fax Expansion Kit	$1,500.00
MX-FWX1L	Internet Fax Kit	$570.00
MX-PF10	Bar Code Font Kit	$660.00
BP-FR12UL	Data Security Kit	$635.00
BP-VD10L	Virus Detection Kit	$400.00
	* Please refer to the product configuration chart before placing your order.	

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Product Code	Description	Suggested Retail Price
	SHARP MX-7081 / MX-8081	
	MX Series High Speed Color Document Systems	
MX-7081	75 PPM B&W / 70 PPM Color - High Speed Color Document System Base models include multi-processor controller, 300-sheet/150-business card DSPF, 3,100-sheet paper capacity (2,000-sheet tandem tray/2 x 500-sheet trays/MX-MF10 100-sheet multi-bypass tray), wireless connectivity, 1 TB hard disk drive with Document Filing System, PCL 6/Adobe® PostScript® 3™ printing systems, network printing, scanning, retractable keyboard and Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting Modules. Standard Security including End-of-Lease data erase feature. Black and color developer is included.	$31,055.00
MX-8081	80 PPM B&W / Color - High Speed Color Document System Base models include multi-processor controller, 300-sheet/150-business card DSPF, 3,100-sheet paper capacity (2,000-sheet tandem tray/2 x 500-sheet trays/MX-MF10 100-sheet multi-bypass tray), wireless connectivity, 1 TB hard disk drive with Document Filing System, PCL 6/Adobe® PostScript® 3™ printing systems, network printing, scanning, retractable keyboard and Sharp OSA® technology (Cloud Ready) - Application Communication and External Accounting Modules. Standard Security including End-of-Lease data erase feature. Black and color developer is included.	$36,315.00
	Options*	
MX-LC12	3,500-sheet Large Capacity Cassette (Letter)	$1,655.00
MX-LCX3N	3,000-sheet Large Capacity Cassette (Letter, Letter-R, Legal or Ledger)	$3,210.00
MX-LC13N	5,000-sheet Large Capacity 2-Drawer Air Feed Tray (Letter, Letter-R, Legal or Ledger; requires MX-RB14)	$7,055.00
MX-LT10	Long Paper Feeding Tray (for use with Banner Paper)	$220.00
MX-MF11	500-sheet Multi-bypass Tray (requires MX-LC13N)	$1,855.00
MX-FN34	3K 65-sheet Staple Finisher (requires MX-RB12N)	$3,210.00
MX-FN35	3K 65-sheet Staple/20-sheet Saddle Stitch Finisher (requires MX-RB12N)	$6,315.00
MX-FN21	4K 100-sheet Staple Finisher (requires MX-RB12N and MX-RB27)	$7,945.00
MX-FN22	4K 100-sheet Staple/20-sheet Saddle Stitch Finisher (requires MX-RB12N and MX-RB27)	$11,285.00
MX-CF11	2-tray Inserter Unit (requires optional equipment - please refer to Configuration Chart)	$4,065.00
MX-FD10	Multi-folding Unit (requires MX-RB12N and MX-RB27; and MX-FN21 or MX-FN22)	$16,525.00
MX-RB12N	Paper Pass Unit (for machine; required for all configurations with finishers)	$580.00
MX-RB13	Relay Unit (requires MX-RB12N and MX-RB27; and MX-FN21 or MX-FN22)	$1,200.00
MX-RB14	Paper Pass Unit (required for MX-LC13N)	$1,200.00
MX-RB27	Curl Correction Unit (required for MX-FN21 and MX-FN22)	$1,200.00
MX-TM10	Trimmer Unit (requires MX-FN22)	$7,055.00
MX-PN16B	3-Hole Punch Unit (for use with MX-FN34 and MX-FN35)	$775.00
MX-PN13B	3-Hole Punch Unit (for use with MX-FN21 and MX-FN22)	$995.00
MX-TR14	Right Side Exit Tray	$200.00
MX-TU14	Center Exit Tray (required if no finishing options are selected)	$145.00
MX-SL10N	Status Indicator Light	$710.00
MX-GBCX2	GBC SmartPunch Pro (requires Die Set and MX-RB13)	$18,540.00
MX-GBC03	3-Hole Die Set (for GBC SmartPunch Pro)	$1,060.00
MX-GBC11	11-Hole VeloBind Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC19	19-Hole CombBind Die Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC21	21-Hole WireBind Die Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC32	32-Hole WireBind Die Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC44	44-Hole Color Coil Die Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC32PRO	32-Hole ProClick Die Set (for GBC SmartPunch Pro)	$1,260.00
MX-GBC51	19-Hole Heavy Duty CombBind Die Set (for GBC SmartPunch Pro)	$4,320.00
MX-GBC52	44-Hole Heavy Duty Color Coil Die Set (for GBC SmartPunch Pro)	$4,080.00
MX-GBC53	3-Hole Heavy Duty Die Set (for GBC SmartPunch Pro)	$2,400.00
MX-PF10	Barcode Font Kit	$660.00
MX-FX15	Fax Expansion Kit	$1,430.00
MX-FWX1L	Internet Fax (i-Fax) Expansion Kit	$570.00
MX-FR65U	Data Security Kit	$800.00
MX-PE15	Fiery Color Embedded Print Server (requires MX-PX15)	$7,000.00
MX-PX15	Fiery Interface Kit (required for MX-PE15)	$2,105.00
MX-PEHF12	Fiery Hot Folders/Virtual Printers Production Features	$1,340.00
MX-PECR1Y	Fiery ColorRight 1 Year Subscription	$1,600.00
MX-PECR2Y	Fiery ColorRight 2 Year Subscription	$3,020.00
MX-PECR3Y	Fiery ColorRight 3 Year Subscription	$4,300.00
MX-PECR4Y	Fiery ColorRight 4 Year Subscription	$5,090.00
MX-PECR5Y	Fiery ColorRight 5 Year Subscription	$5,950.00
MX-PEAM1Y	Fiery Automation 1 Year Subscription	$1,340.00
MX-PEAM2Y	Fiery Automation 2 Year Subscription	$2,550.00
MX-PEAM3Y	Fiery Automation 3 Year Subscription	$3,600.00
MX-PEAM4Y	Fiery Automation 4 Year Subscription	$4,290.00
MX-PEAM5Y	Fiery Automation 5 Year Subscription	$5,020.00
MX-PEFIS	Fiery Impose Software	$3,400.00
MX-PEFC	Fiery Compose Software	$1,550.00
MX-PEIC	Fiery Impose + Fiery Compose Software Bundle	$4,330.00
MX-PESP3	EFI ES-3000 Spectrophotometer	$1,855.00
MX-PECPS1	Fiery Color Profiler Suite (includes MX-PECPM 1-year SMSA)	$3,300.00
MX-PECPSP1	Fiery Color Profiler Suite + EFI ES-3000 Spectrophotometer (includes MX-PECPM 1-year SMSA)	$4,740.00
MX-PECPM	Fiery Color Profiler Suite 1-year Software Maintenance and Support Agreement (SMSA) (avail. for MX-PECPS1/P1)	$720.00
	* Please refer to the product configuration chart before placing your order.	

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Retail Price List
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Product Code	Description	Suggested Retail Price
	SHARP BP-90C70 / BP-90C80	
	Pro Series High Speed Color Document Systems	
BP-90C70	75 PPM B&W / 70 PPM Color - High Speed Color Document System Base models include multi-processing controller, 300-sheet DSPF, 3,000-sheet standard paper capacity (2,000-sheet tandem tray and two 500-sheet trays). 256-GB solid state drive, PCL®6 and Adobe® PostScript® 3™ network printing, color network scanning, swing-out keyboard, Sharp OSA® technology (Cloud-ready). Standard Security including End-of-Lease Data Erase feature. Black and color developer included.	$50,850.00
BP-90C80	80 PPM B&W / Color - High Speed Color Document System Base models include multi-processing controller, 300-sheet DSPF, 3,000-sheet standard paper capacity (2,000-sheet tandem tray and two 500-sheet trays). 256-GB solid state drive, PCL®6 and Adobe® PostScript® 3™ network printing, color network scanning, swing-out keyboard, Sharp OSA® technology (Cloud-ready). Standard Security including End-of-Lease Data Erase feature. Black and color developer included.	$66,250.00
	Options*	
MX-LC12	3,500-sheet Large Capacity Cassette (Letter; requires MX-MF10)	$1,655.00
MX-LCX3N	3,000-sheet Large Capacity Cassette (Letter, Letter-R, Legal or Ledger; requires MX-MF10)	$3,210.00
MX-LC13N	5,000-sheet Large Capacity 2-Drawer Air Feed Tray (Letter, Letter-R, Legal or Ledger; requires MX-RB14)	$7,055.00
MX-LT10	Long Paper Feeding Tray (requires MX-MF10, or MX-MF11 and MX-FN21 or MX-FN22)	$220.00
BP-LTKT	Long Paper Feeding Tray Support Kit (requires MX-LT10)	$260.00
MX-MF10	100-sheet Multi-bypass Tray (for machine; required for MX-LC12 and MX-LCX3N)	$1,545.00
MX-MF11	500-sheet Multi-bypass Tray (requires MX-LC13N)	$1,855.00
MX-CF11	2-tray Inserter Unit (requires optional equipment - please refer to Configuration Chart)	$4,065.00
MX-FD10	Multi-folding Unit (requires MX-RB12N, MX-RB15, and MX-FN21 or MX-FN22)	$16,525.00
MX-FN21	4K 100-sheet Staple Finisher (requires MX-RB12N and MX-RB15)	$7,945.00
MX-FN22	4K 100-sheet Staple/20-sheet Saddle Stitch Finisher (requires MX-RB12N and MX-RB15)	$11,285.00
MX-PN13B	3-hole Punch Unit (for use with MX-FN21 and MX-FN22)	$995.00
MX-RB12N	Paper Pass Unit (for machine; required for all configurations with finishers)	$580.00
MX-RB13	Relay Unit (requires optional equipment - please refer to Configuration Chart)	$1,200.00
MX-RB14	Paper Pass Unit (required for MX-LC13N)	$1,200.00
MX-RB17	LCT Tandem Connecting Kit (required for connecting 2 MX-LC13Ns)	$2,105.00
MX-RB27	Curl Correction Unit (required for all configurations with finishers or stackers)	$1,200.00
MX-SL10N	Status Indicator	$710.00
MX-TM10	Face Trimmer Unit (requires MX-FN22)	$7,055.00
MX-TR14	Right Side Exit Tray (requires MX-MF10)	$200.00
MX-TU14	Center Exit Tray (required if no finishing options are selected)	$145.00
MX-GBCP3	GBC SmartPunch Plus (requires Die Set and MX-RB13)	$18,750.00
MX-GBCP19	Comb Bind Die (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP51HD	Comb Bind HD Die (for GBC SmartPunch Plus)	$4,325.00
MX-GBCP32SQ	Twin Loop Die 32 SQ (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP21SQ	Twin Loop Die 21 SQ (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP32RND	Twin Loop Die 32 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP21RND	Twin Loop Die 21 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP44RND	Color Coil Die 44 RND (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP52HD	Color Coil Die 44 RND HD (for GBC SmartPunch Plus)	$4,100.00
MX-GBCP44OVL	Color Coil Die 44 OVL (for GBC SmartPunch Plus)	$3,150.00
MX-GBCP11	Velobind Die 11 Hole (for GBC SmartPunch Plus)	$1,395.00
MX-GBCP03	3-Hole Punch Die (for GBC SmartPunch Plus)	$1,350.00
MX-GBCP53HD	3-Hole Punch Die HD (for GBC SmartPunch Plus)	$2,500.00
MX-GBCP357	3/5/7-Hole Punch Die (for GBC SmartPunch Plus)	$1,350.00
MX-GBCPCR	Creasing Die (for GBC SmartPunch Plus)	$3,900.00
MX-GBCPPF12	Perforation Die 12 TPI (for GBC SmartPunch Plus)	$3,400.00
MX-GBCPPF9	Perforation Die 9 TPI (for GBC SmartPunch Plus)	$3,400.00
MX-GBCBK	Banner Kit (for GBC SmartPunch Plus)	$435.00
MX-BM50	Plockmatic Booklet Maker + Interface Kit (requires MX-FN21)	$20,315.00
MX-CF50	Plockmatic Cover Feeder	$5,475.00
MX-FD50	Plockmatic Square Fold Module (requires MX-TM50)	$14,210.00
MX-TM50	Plockmatic Face Trimmer Module	$14,210.00
MX-XB50	Plockmatic Rail Unit	$525.00
MX-PF10	Barcode Font Kit	$660.00
BP-SD10	High Capacity SSD (512 GB)	$550.00
BP-VD10L	Virus Detection Kit	$400.00
BP-FR12UL	Data Security Kit	$635.00
BP-PE10	Fiery External Color Print Server (requires BP-PX10)	$23,070.00
BP-PX10	Fiery Interface Kit (required for BP-PE10)	$3,475.00
BP-PE11	Fiery Embedded Color Print Server (requires BP-PX11)	$10,720.00
BP-PX11	Fiery Interface Kit (required for BP-PE11)	$2,105.00
MX-PEHF12	Fiery Hot Folders/Virtual Printers Production Features (option for BP-PE11)	$1,340.00
MX-PEFIS	Fiery Impose Software	$3,400.00
MX-PEFC	Fiery Compose Software	$1,550.00
MX-PEIC	Fiery Impose + Fiery Compose Software Bundle	$4,330.00
MX-PEJM1	Fiery JobMaster Software (includes MX-PEJMM 1-year SMSA)	$6,240.00
MX-PEJI1	Fiery JobMaster + Fiery Impose Software Bundle (includes MX-PEJIM 1-year SMSA)	$8,810.00
MX-PECR1Y	Fiery ColorRight 1 Year Subscription (option for BP-PE11 only)	$1,600.00
MX-PECR2Y	Fiery ColorRight 2 Year Subscription (option for BP-PE11 only)	$3,020.00
MX-PECR3Y	Fiery ColorRight 3 Year Subscription (option for BP-PE11 only)	$4,300.00
MX-PECR4Y	Fiery ColorRight 4 Year Subscription (option for BP-PE11 only)	$5,090.00
MX-PECR5Y	Fiery ColorRight 5 Year Subscription (option for BP-PE11 only)	$5,950.00
MX-PEAM1Y	Fiery Automation 1 Year Subscription (option for BP-PE11 only)	$1,340.00
MX-PEAM2Y	Fiery Automation 2 Year Subscription (option for BP-PE11 only)	$2,550.00
MX-PEAM3Y	Fiery Automation 3 Year Subscription (option for BP-PE11 only)	$3,600.00
MX-PEAM4Y	Fiery Automation 4 Year Subscription (option for BP-PE11 only)	$4,290.00
MX-PEAM5Y	Fiery Automation 5 Year Subscription (option for BP-PE11 only)	$5,020.00
BP-PEAA20	Adobe Acrobat Pro 2020 (for use with Fiery Impose/Compose/JobMaster Software)	$880.00

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Product Code	Description	Suggested Retail Price
BP-PEGAP1Y	Fiery Graphic Arts Pro Package, 1 Year Term (option for BP-PE10 only)	$2,990.00
BP-PEGAP2Y	Fiery Graphic Arts Pro Package, 2 Year Term (option for BP-PE10 only)	$5,670.00
BP-PEGAP3Y	Fiery Graphic Arts Pro Package, 3 Year Term (option for BP-PE10 only)	$8,050.00
BP-PEGAP4Y	Fiery Graphic Arts Pro Package, 4 Year Term (option for BP-PE10 only)	$9,530.00
BP-PEGAP5Y	Fiery Graphic Arts Pro Package, 5 Year Term (option for BP-PE10 only)	$11,170.00
BP-PEJE	Fiery JobExpert and PDF Processing Kit (option for BP-PE11 only)	$4,190.00
MX-PEJF1	Fiery JobFlow Software (includes MX-PEJFM 1-year SMSA)	$8,140.00
BP-PEHD10	Fiery Removable Hard Disk Drive (option for BP-PE10 only)	$3,925.00
MX-PESP3	EFI ES-3000 Spectrophotometer	$1,855.00
MX-PECPS1	Fiery Color Profiler Suite (includes MX-PECPM 1-year SMSA)	$3,300.00
MX-PECPSP1	Fiery Color Profiler Suite + EFI ES-3000 Spectrophotometer (includes MX-PECPM 1-year SMSA)	$4,740.00
MX-PEJMM	Fiery JobMaster 1-year Software Maintenance and Support Agreement (SMSA) (available for MX-PEJM1)	$1,370.00
MX-PEJIM	Fiery JobMaster + Impose 1-year Software Maintenance and Support Agreement (SMSA) (avail. for MX-PEJI1)	$1,895.00
MX-PEJFM	Fiery JobFlow 1-year Software Maintenance and Support Agreement (SMSA) (available for MX-PEJF1)	$1,895.00
MX-PECPM	Fiery Color Profiler Suite 1-year Software Maintenance and Support Agreement (SMSA) (avail. for MX-PECPS1/P1)	$720.00
	* Please refer to the product configuration chart before placing your order.	

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-B350P		
	MX Monochrome Series Document Systems		
MX-DS22N	High Stand (1 door with storage)	Each	$265
MX-DS23N	Low Stand	Each	$170
MX-B45NT	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 30,000 images @ 5% Image Area/Cartridge	Each	$91
MX-B45NV	Black Developer (Recommend ordering in multiples of 10) Estimated Yield - 100,000 Images/Package	Each	$29
MX-SCX1	Staple Cartridge (3 Cartridges per carton) (5,000 Staples/Cartridge)	Per	$98
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-B540WR / BP-B550WD		
	MX Monochrome Series Document Systems		
BP-DS14	High Stand (1 door with storage)	Each	$265
BP-DS15	Low Stand	Each	$170
BP-B50NT-A	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 30,000 images @ 5% Image Area/Cartridge	Each	$91
BP-B50NV	Black Developer (Recommend ordering in multiples of 10) Estimated Yield - 100,000 Images/Package	Each	$29
MX-SCX1	Staple Cartridge (3 Cartridges per carton) (5,000 Staples/Cartridge)	Per	$98
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-B427W / MX-B427PW		
	MX Monochrome Series Document Systems		
MX-B42T	Toner Cartridge (Recommend ordering in multiples of 12) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$400
MX-B42DU	Imaging Unit (Drum) Estimated Yield - 40,000 Images/Package	Each	$110
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-B468F / MX-B468P		
	MX Monochrome Series Document Systems		
MX-B47T	Black Toner Cartridge (for MX-B468F and MX-B468P) (Recommend ordering in multiples of 12) Estimated 31,000 images @ 5% Image Area/Cartridge	Each	$340
MX-B47DU	Black Imaging Kit (includes drum/developer) Estimated Yield - 75,000 Images/Package	Each	$76
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-B557P / MX-B707P		
	MX Monochrome Series Document Systems		
MX-B70T	Toner Cartridge (Recommend ordering in multiples of 12) Estimated 45,000 images @ 5% Image Area/Cartridge	Each	$324
MX-B70DU	Drum Estimated Yield - 150K Images/Package	Each	$108
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-B557F		
	MX Monochrome Series Document System		
MX-B70T	Toner Cartridge (Recommend ordering in multiples of 12) Estimated 45,000 images @ 5% Image Area/Cartridge	Each	$324
MX-B70DU	Drum Estimated Yield - 150K Images/Package	Each	$108
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-C535WR / BP-C535WD / BP-C545WD		
	A4 BP Color Series Document Systems		
BP-DS14	High Stand (1 door with storage)	Each	$265
BP-DS15	Low Stand	Each	$170
BP-C50NT-BA	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area/Cartridge	Each	$127
BP-C50NT-CA	Cyan Toner Cartridge (Recommend ordering in multiples of 10) Estimated 8,000 images @ 5% Image Area/Cartridge	Each	$129
BP-C50NT-MA	Magenta Toner Cartridge (Recommend ordering in multiples of 10) Estimated 8,000 images @ 5% Image Area/Cartridge	Each	$129
BP-C50NT-YA	Yellow Toner Cartridge (Recommend ordering in multiples of 10) Estimated 8,000 images @ 5% Image Area/Cartridge	Each	$129
BP-C50NV-BA	Black Developer (Recommend ordering in multiples of 10) Estimated Yield - 175,000 Images/Package	Each	$240
BP-C50NV-CA	Cyan Developer (Recommend ordering in multiples of 10) Estimated Yield - 55,000 Images/Package	Each	$240
BP-C50NV-MA	Magenta Developer (Recommend ordering in multiples of 10) Estimated Yield - 55,000 Images/Package	Each	$240
BP-C50NV-YA	Yellow Developer (Recommend ordering in multiples of 10) Estimated Yield - 55,000 Images/Package	Each	$240
MX-SCX1	Staple Cartridge (3 Cartridges per carton) (5,000 Staples/Cartridge)	Each	$98
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-C358F / MX-C428P		
	MX Color Series Document Systems		
MX-C36TB	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$212
MX-C36TC	Cyan Toner Cartridge (Recommend ordering in multiples of 12) Estimated 11,700 images @ 5% Image Area/Cartridge	Each	$212
MX-C36TM	Magenta Toner Cartridge (Recommend ordering in multiples of 12) Estimated 11,700 images @ 5% Image Area/Cartridge	Each	$212
MX-C36TY	Yellow Toner Cartridge (Recommend ordering in multiples of 12) Estimated 11,700 images @ 5% Image Area/Cartridge	Each	$212
MX-C36DU-B	Black Imaging Unit (includes drum/developer) Estimated Yield - 150,000 Images/Package	Each	$279
MX-C36DU-S	Black and Color Imaging Unit (includes drum/developer) Estimated Yield - 150,000 Images/Package	Each	$369
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-C428F / MX-C528F / MX-C528P		
	MX Color Series Document Systems		
MX-C52TB	Black Toner Cartridge (**for MX-C428F and MX-C528F**) (Recommend ordering in multiples of 12) Estimated 25,000 images @ 5% Image Area/Cartridge	Each	$100
MX-C52TC	Cyan Toner Cartridge (**for MX-C428F and MX-C528F**) (Recommend ordering in multiples of 12) Estimated 14,200 images @ 5% Image Area/Cartridge	Each	$250
MX-C52TM	Magenta Toner Cartridge (**for MX-C428F and MX-C528F**) (Recommend ordering in multiples of 12) Estimated 14,2000 images @ 5% Image Area/Cartridge	Each	$250
MX-C52TY	Yellow Toner Cartridge (**for MX-C428F and MX-C528F**) (Recommend ordering in multiples of 12) Estimated 14,200 images @ 5% Image Area/Cartridge	Each	$250
MX-C53TB	Black Toner Cartridge (**for MX-C528P**) (Recommend ordering in multiples of 12) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$226
MX-C53TC	Cyan Toner Cartridge (**for MX-C528P**) (Recommend ordering in multiples of 12) Estimated 11,500 images @ 5% Image Area/Cartridge	Each	$286
MX-C53TM	Magenta Toner Cartridge (**for MX-C528P**) (Recommend ordering in multiples of 12) Estimated 11,500 images @ 5% Image Area/Cartridge	Each	$286
MX-C53TY	Yellow Toner Cartridge (**for MX-C528P**) (Recommend ordering in multiples of 12) Estimated 11,500 images @ 5% Image Area/Cartridge	Each	$286
MX-C52DU-BS	Black Imaging Kit (includes drum/developer) Estimated Yield - 150,000 Images/Package	Each	$118
MX-C52DU-SS	Cyan/Magenta/Yellow Imaging Kit (includes drum/developer) Estimated Yield - 150,000 Images/Package	Each	$392
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-C607P		
	MX Color Series Document System		
MX-C55TB	Black Toner Cartridge (Recommend ordering in multiples of 12) Estimated 25,000 images @ 5% Image Area/Cartridge	Each	$254
MX-C55TC	Cyan Toner Cartridge (Recommend ordering in multiples of 12) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$560
MX-C55TM	Magenta Toner Cartridge (Recommend ordering in multiples of 12) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$560
MX-C55TY	Yellow Toner Cartridge (Recommend ordering in multiples of 12) Estimated 20,000 images @ 5% Image Area/Cartridge	Each	$560
MX-C60DU-B	Black Drum Estimated Yield - 175,000 Images/Package	Each	$116
MX-C60DU-S	Color Drum Estimated Yield - 175,000 Images/Package	Each	$346
MX-C60DV-B	Black Developer Estimated Yield - 300,000 Images/Package	Each	$122
MX-C60DV-S	Cyna/Magenta/Yellow Developer Estimated Yield - 300,000 Images/Package	Each	$368
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

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Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-50M26 / BP-50M31 / BP-50M36 / BP-50M45 / BP-50M55 / BP-50M65		
	Essentials Series Monochrome Document Systems		
BP-70ABD	Deluxe Copier Cabinet Base (with front door)	Each	$400
BP-NT700	Toner Cartridge (Recommend ordering in multiples of 10) Estimated 40,000 images @ 6% Image Area	Each	$132
BP-NV700	Developer (Recommend ordering in multiples of 10) Estimated Yield - 26 ppm model: 400,000 Images/Package, 31 ppm model: 500,000 Images/Package, 36 ppm model: 560,000 Images/Package, 45/55/65 ppm models: 600,000 Images/Package	Each	$190
MX-SCX1	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN11/FN12/FN13	Per Carton	$98
AR-SC2	Saddle Stitch Staple Cartridge (3 Cartridges/Carton) (5,000 Staples/Cartridge) For use with BP-FN14	Per Carton	$98
MX-SC11	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN15/16	Per Carton	$98
MX-SC12	Saddle Stitch Staple Cartridge (4 Cartridges/Carton) (2,000 staples/Cartridge) For use with BP-FN16	Per Carton	$60
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-70M31 / BP-70M36 / BP-70M45 / BP-70M55 / BP-70M65		
	Advanced Series Monochrome Document Systems		
BP-70ABD	Deluxe Copier Cabinet Base (with front door)	Each	$400
BP-NT700	Toner Cartridge (Recommend ordering in multiples of 10) Estimated 40,000 images @ 6% Image Area	Each	$132
BP-NV700	Developer (Recommend ordering in multiples of 10) Estimated Yield - 26 ppm model: 400,000 Images/Package, 31 ppm model: 500,000 Images/Package, 36 ppm model: 560,000 Images/Package, 45/55/65 ppm models: 600,000 Images/Package	Each	$190
MX-SCX1	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN11/FN12/FN13	Per Carton	$98
AR-SC2	Saddle Stitch Staple Cartridge (3 Cartridges/Carton) (5,000 Staples/Cartridge) For use with BP-FN14	Per Carton	$98
MX-SC11	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN15/16	Per Carton	$98
MX-SC12	Saddle Stitch Staple Cartridge (4 Cartridges/Carton) (2,000 staples/Cartridge) For use with BP-FN16	Per Carton	$60
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Designed for Digital Technology.	Each	$180

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-70M75 / BP-70M90		
	High Volume Monochrome Workgroup Document System		
BP-NT705	Toner Cartridge (Recommend ordering in multiples of 10) Estimated 83,000 images @ 6% Image Area/Cartridge	Each	$150
BP-NV705	Developer (Recommend ordering in multiples of 10) Estimated Yield - 800,000 Images/Package	Each	$200
MX-SC11	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN34 and MX-FN35	Per Carton	$98
MX-SC12	Saddle Stitch Staple Cartridge (4 Cartridges/Carton) (2,000 staples/Cartridge) For use with MX-FN35	Per Carton	$60
MX-SCX1	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN22	Per Carton	$98
MX-SCX2	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN21 and MX-FN22	Per Carton	$98
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Recommended MX-FN21 and MX-FN22.	Each	$180
AR-D5143NT	Digital Power Filter - 120 Volt, 20 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Recommended for main unit.	Each	$205

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-M1056 / MX-M1206		
	Pro Series Monochrome Document Systems		
MX-900NT	Toner Cartridge (Recommend ordering in multiples of 4) Estimated 120,000 images @ 6% Image Area/Cartridge	Each	$251
MX-900NV	Developer (Recommend ordering in multiples of 5) Estimated Yield - 1,000,000 Images/Package	Each	$166
MX-SCX1	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN22	Per Carton	$98
MX-SCX2	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN21 and MX-FN22	Per Carton	$98
MX-SC50	Plockmatic Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-BM50	Per Carton	$140
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Recommended for MX-BM50, MX-FN21, MX-FN22, and MX-LC13N.	Each	$180
MX-E524ZNT	Digital Power Filter - 208/230 Volt, 20 Amps Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5e Certified Surge Protection. Recommended for MX-M1056/M1206 main unit.	Each	$320

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-50C26 / BP-50C31 / BP-50C36 / BP-50C45 / BP-50C55 / BP-50C65		
	Essentials Series Color Document Systems		
BP-70ABD	Deluxe Copier Cabinet Base (with front door) (available summer 2022)	Each	$400
BP-NT70BA	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 40,000 images @ 5% Image Area	Each	$130
BP-NT70CA	Cyan Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
BP-NT70MA	Magenta Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
BP-NT70YA	Yellow Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
MX-SCX1	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN11/FN12/FN13	Per Carton	$98
AR-SC2	Saddle Stitch Staple Cartridge (3 Cartridges/Carton) (5,000 Staples/Cartridge) For use with BP-FN14	Per Carton	$98
MX-SC11	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN15/16	Per Carton	$98
MX-SC12	Saddle Stitch Staple Cartridge (4 Cartridges/Carton) (2,000 staples/Cartridge) For use with BP-FN16	Per Carton	$60
AR-D5133NT	Digital Power Filter (for 26/31/36/45 ppm models) - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection.	Each	$180
AR-D5143NT	Digital Power Filter (for 55/65 ppm models) - 120 Volt, 20 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection.	Each	$205

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-70C31 / BP-70C36 / BP-70C45 / BP-70C55 / BP-70C65		
	Advanced Series Color Document Systems		
BP-70ABD	Deluxe Copier Cabinet Base (with front door) (available summer 2022)	Each	$400
BP-NT70BA	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 40,000 images @ 5% Image Area	Each	$130
BP-NT70CA	Cyan Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
BP-NT70MA	Magenta Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
BP-NT70YA	Yellow Toner Cartridge (Recommend ordering in multiples of 10) Estimated 24,000 images @ 5% Image Area	Each	$277
MX-SCX1	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN11/FN12/FN13	Per Carton	$98
AR-SC2	Saddle Stitch Staple Cartridge (3 Cartridges/Carton) (5,000 Staples/Cartridge) For use with BP-FN14	Per Carton	$98
MX-SC11	Staple Cartridge (3 Cartridges/Carton) (5,000 staples/Cartridge) For use with BP-FN15/16	Per Carton	$98
MX-SC12	Saddle Stitch Staple Cartridge (4 Cartridges/Carton) (2,000 staples/Cartridge) For use with BP-FN16	Per Carton	$60
AR-D5133NT	Digital Power Filter (for 31/36/45ppm models) - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection.	Each	$180
AR-D5143NT	Digital Power Filter (for 55/65 ppm models) - 120 Volt, 20 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection.	Each	$205

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP MX-7081 / MX-8081		
	MX Series High Speed Color Document Systems		
MX-80NTBA	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 70,000 images @ 5% Image Area/Cartridge	Each	$158
MX-80NTCA	Cyan Toner Cartridge (Recommend ordering in multiples of 10) Estimated 50,000 images @ 5% Image Area/Cartridge	Each	$461
MX-80NTMA	Magenta Toner Cartridge (Recommend ordering in multiples of 10) Estimated 50,000 images @ 5% Image Area/Cartridge	Each	$461
MX-80NTYA	Yellow Toner Cartridge (Recommend ordering in multiples of 10) Estimated 50,000 images @ 5% Image Area/Cartridge	Each	$461
MX-SC11	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN34 and MX-FN35	Per Carton	$98
MX-SC12	Staple Cartridge 4 Cartridges/Carton (2,000 Staples/Cartridge) For use with MX-FN35	Per Carton	$60
MX-SCX1	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN22	Per Carton	$98
MX-SCX2	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN21 and MX-FN22	Per Carton	$98
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified. Network/Phone Line Protection. Recommended for MX-FN21, MX-FN22, and MX-LC13N.	Each	$180
MX-E524ZNT	Digital Power Filter - 208/230 Volt, 20 Amps Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5e Certified Surge Protection. Recommended for MX-7081/8081 main unit.	Each	$320

SHARP

Retail Price List
Effective - June 13, 2024

Product Code	Supplies & Accessories	Order Quantity	Suggested Retail Price
	SHARP BP-90C70 / BP-90C80		
	Pro Series High Speed Color Document Systems		
BP-NT90BA	Black Toner Cartridge (Recommend ordering in multiples of 10) Estimated 70,000 images @ 5% Image Area/Cartridge	Each	$158
BP-NT90CA	Cyan Toner Cartridge (Recommend ordering in multiples of 10) Estimated 60,000 images @ 5% Image Area/Cartridge	Each	$220
BP-NT90MA	Magenta Toner Cartridge (Recommend ordering in multiples of 10) Estimated 60,000 images @ 5% Image Area/Cartridge	Each	$220
BP-NT90YA	Yellow Toner Cartridge (Recommend ordering in multiples of 10) Estimated 60,000 images @ 5% Image Area/Cartridge	Each	$220
MX-SCX1	Staple Cartridge 3 Cartridges/Carton - (5,000 Staples/Cartridge) For use with MX-FN22	Per Carton	$98
MX-SCX2	Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-FN21 and MX-FN22	Per Carton	$98
MX-SC50	Plockmatic Staple Cartridge 3 Cartridges/Carton (5,000 Staples/Cartridge) For use with MX-BM50	Per Carton	$140
AR-D5133NT	Digital Power Filter - 120 Volt, 15 Amps, 2 Outlets Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5 Certified Network/Phone Line Protection. Recommended for MX-BM50, MX-FN21, MX-FN22, and MX-LC13N.	Each	$180
MX-E524ZNT	Digital Power Filter - 208/230 Volt, 20 Amps Maximum Power Surge Suppression, Ground Noise Elimination, CAT 5e Certified Surge Protection. Recommended for BP-90C70/90C80 main unit.	Each	$320

Security Guide

IT Reference Guide

SHARP®

SECURITY SUITE REFERENCE GUIDE

sharp security
safeguards your business

version 2.4

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INCREASED SECURITY THREATS AND COMPLEXITY

Organizations of all sizes rely on a vast array of technologies to help make daily activities and communication more efficient. Adoption of new platforms such as mobile and cloud, can increase the frequency and complexity of security challenges. The more open and intricate these platforms become, the more corporations and organizations face constant threats that could put sensitive information and business continuity at risk. However, **implementing new technology is essential** to keep up with the speed of business.

Protecting sensitive data is crucial for business continuity.

Threat Types

Insider Security Breach

- Wrongful distribution or viewing of confidential information
- Improper routing of sensitive information
- Unauthorized access to data stored on the MFPs, folders and other services
- Lost laptops and mobile devices

Cyber Attacks

- Email containing malware and bots
- Email Phishing
- DDoS attacks
- Password hacks
- Malware and ransomware attacks through network and system vulnerability

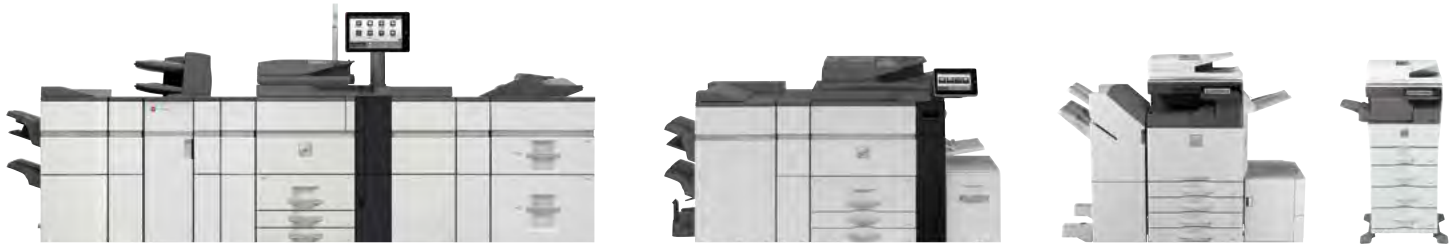
New Risks – Third Platform

Mobile Adoption

- Data and network security vulnerability from BYOD
- Mobile OS vulnerability
- Malicious apps
- Infect mobile devices for monetization
- Misplaced mobile devices

Cloud Services

- Uncontrolled use of cloud services
- Business continuity and vulnerability challenges
- DoS attacks
- Cloud service hijack for ransom



INFORMATION SECURITY IN KEY VERTICAL MARKETS

New technologies such as mobile and cloud services are also transforming numerous vertical markets. However, when organizations adopt new communication platforms, data security and maintaining regulatory compliance become more challenging.

College Campuses, Libraries, Public Organizations

Education – The need for student privacy continues to grow as education records are digitized and shared electronically. Educational institutions must act responsibly, safeguarding students' personal data. Institutions must meet requirements of the Family Educational Rights and Privacy Act (FERPA) as well as the Health Insurance Portability and Accountability Act (HIPAA) on digitalized student information.

Critical Information: • Student Records • Social Security Numbers • Health Information

Defense Contractors, Government Agencies, Department of Defense, Local Governments

Local Government – Local government agencies maintain various types of data including social security numbers, credit card numbers, driver's license numbers, Federal Tax Information (FTI) and more. As the e-Government movement progresses, local government offices are under great pressure to protect sensitive information from hackers. Cybersecurity is one of the most critical components of IT for government agencies. Local government organizations, department entities, and courts, have strict data security mandates as outlined in several security standards, specifications and directives. Among the most stringent and applicable standards for MFPs and printers is ISO 15408/Common Criteria (CC) directed by National Information Assurance Partnership (NIAP).

Critical Information: • Social Security Numbers • Resident Information • Driver's License • Local Government Documents • Police Reports • Contracts

Lawyers, Law Offices, Service Organizations

Legal Services – Lawyers and law firms need to protect their client's data and information. In reaction to the rate of cloud and mobile adoption as well as the growing trend in data conversion requirements for e-discovery, companies offering legal services are forced to meet new regulations and compliances such as the EU General Data Protection Regulation (GDPR) and U.S. Personally Identifiable Information (PII). Proper data classification ensuring only authorized users access to the confidential data will be critical to minimize the impact on legal practices.

Critical Information: • Social Security Numbers • Contracts • Case Information • Client Information

Hospitals, Pharmacies, Healthcare Facilities

Healthcare – The Health Information Technology for Economic and Clinical Health Act (HITECH) and Meaningful Use execution enabled rapid adoption of Electronic Health Record (EHR) systems. The U.S. Department of Health and Human Service (HHS) recognized that advances in electronic technology and digitalized patient records could further risk the privacy and security of confidential health information. The privacy and security protections for individually identifiable health information are strengthened under the rule and national standards of the Health Insurance Portability and Accountability Act (HIPAA). Doctors, hospitals, insurance companies, nursing facilities and other care providers must follow HIPAA to protect patient information, health histories, medication records, billing and insurance information and other electronic healthcare transactions.

Critical Information: • Private Patient Records • Health Histories • Medication Records • Social Security Numbers

Private Companies, Financial Institutions

Financial/Corporate – Financial institutions and business organizations are constantly under threat of information leakage by internal and external sources. All organizations, regardless of size, that are “significantly engaged” in providing financial products or services, such as banks, mortgage lenders, brokerage houses and investment organizations, are guided by the Gramm-Leach-Bliley (GLB) Act to protect confidential records, transactions and customer information. In addition, all public companies need to comply with the Sarbanes-Oxley Acts (SOX). SOX mandates that organizations must store and track business information including electronic communications as well as hard copy documents. In addition, due to increased adoption of online transactions, corporations are required to meet new regulations such as GDPR. IT administrators are challenged to securely and cost-effectively store and manage all corporate and customer information.

Critical Information: • Customer Information • Employee Records • Bank Account Information • Corporate Accounting and Financial Records • Tax Documents • Credit Card Information • Social Security Numbers

PRINTER AND MFP SECURITY

Organizations are under constant threats from malicious attempts to steal and/or modify business data, or gain unauthorized access to their networks. Security threats as well as regulatory compliance requirements can be extended to the printers and multifunction printers (MFPs) that are commonly used in any organization.

Physical Security Threats

Typically, MFPs are located in common areas accessible by multiple people. Unauthorized personnel can potentially access and enter corporate networks when devices are not fully protected. In addition, any information stored on a local desktop computer or a server accessible through the network can be printed without authorization. Meanwhile, at the MFP device, confidential information can be accidentally or even purposely copied from stored documents, taken from the output tray or faxed without authorization.

Network Security Threats

Unsecured access to your company's stored data makes you vulnerable to having it stolen or altered. Furthermore, cyber criminals may obtain confidential information by unleashing a Denial-of-Service (DoS) attack, a phishing attack, or a virus via the network to launch an advanced cyberattack. Phone line communications or network data could easily be intercepted when proper security measures are not implemented. Even MFP data stored on a hard disk drive or in memory could be compromised or stolen if not protected.

Protecting sensitive data is crucial and the end goal.

Today's intelligent MFPs and printers have evolved to include advanced network communications and data storage capabilities. Failing to protect them may result in devastating damage to a company. Potential business impact includes:

- Loss of productivity
- Fines due to regulatory non-compliance
- Loss of access to data and network
- Loss of competitiveness due to stolen information
- Lawsuits

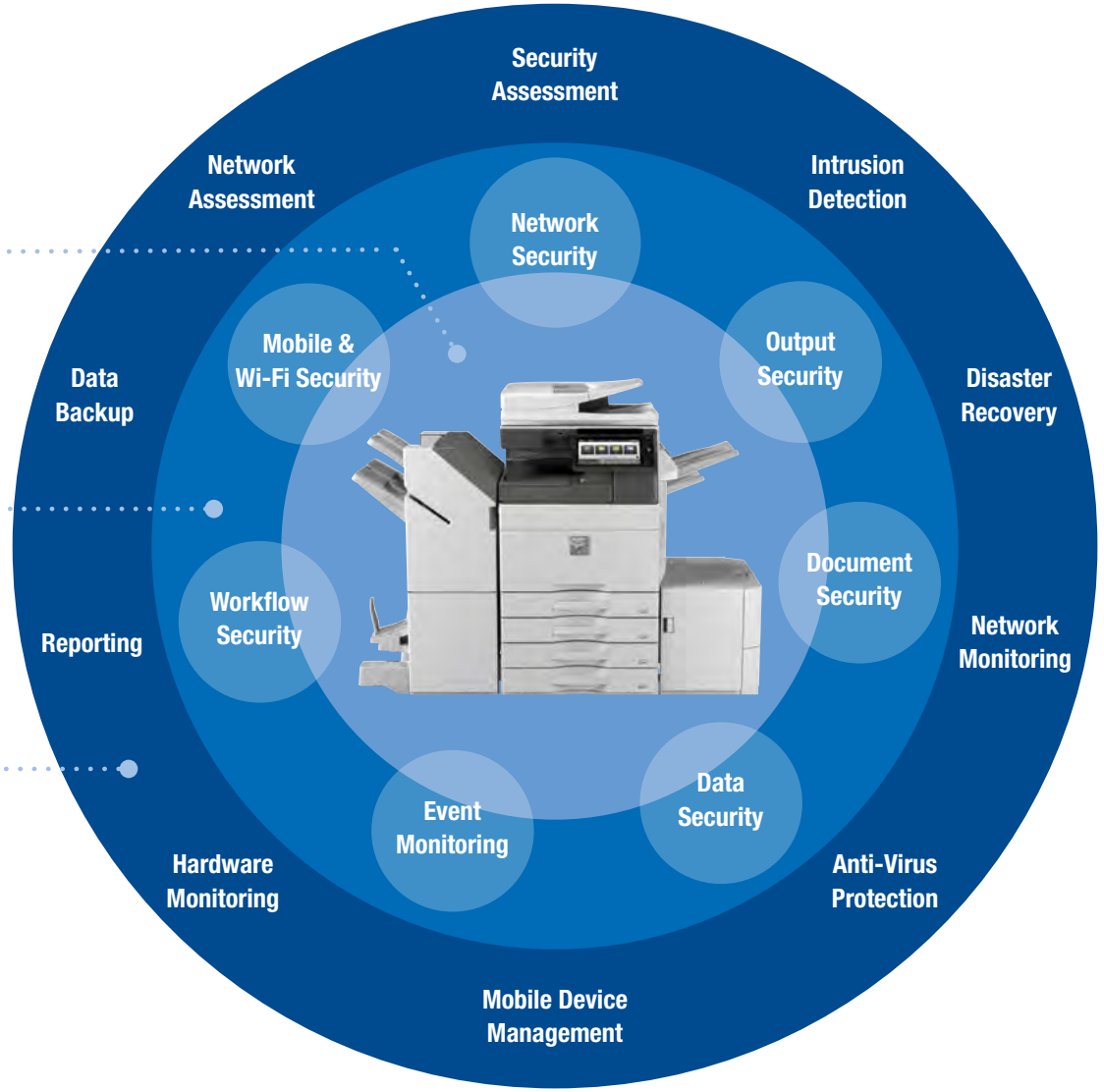
SHARP SECURITY SUITE

Sharp provides a multi-layered approach to help safeguard organizations against security threats. Sharp MFPs and printers are designed to help IT administrators and security officials plan, choose and implement proper risk prevention and control through the comprehensive Sharp Security Suite.

Standard MFP Security & Data Security Kit (DSK)*

Security Management Software

Third Party & IT Service Applications



sharp security
safeguards your business

* Data Security Kit option available on most models.

Security Features That Provide Comprehensive Protection

Sharp MFPs are armed with many advanced security features to help businesses safeguard their data and protect against unauthorized network intrusions and malware attacks. Businesses can achieve optimal protection by following good IT practices and utilizing these features.

Achieve Optimal Security: Check Your MFP's Security Configuration!*

- ✓ Implement secure user access control (Active Directory® or LDAP user authentication).
- ✓ Limit users who have administrator's rights.
- ✓ Apply more complex administrator password rules.
- ✓ Close unused ports and disable unneeded network services and protocols.
- ✓ Use IP and MAC address filtering to limit MFP access to only necessary PCs.
- ✓ Install a Data Security Kit (DSK) or configure built-in data security.
- ✓ Enable the TLS protocol to secure all communications.
- ✓ Ensure that users are assigned to properly configured Authority Groups.
- ✓ Disable unused device functions.
- ✓ Periodically check job and audit logs for suspicious activity.
- ✓ Enable POP3 and SMTP authentication if possible.
- ✓ Change the MFP's SNMP community name from its default "public."
- ✓ Do not "publish" an MFP's IP address outside your organization's firewall.
- ✓ Ensure Wi-Fi and mobile security are properly configured.

* Some features may not be available on all models.

Data Security in Transit or at Rest

Hassle-free erase/overwrite of data and settings completed securely.

Data security is a fundamental component for MFP and printer security. Sharp MFPs and printers include standard and/or optional security features that protect data stored on the device or in transit.

- **Data Encryption**

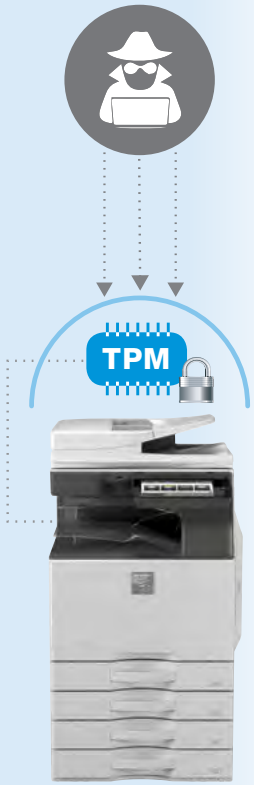
  When data encryption is enabled on select Sharp MFPs, Advanced Encryption Standard (AES) algorithm 256-bit method is used in communication and on the data before it is written to RAM and the hard disk drive.

- **Data Overwrite**

  Up to 10 times programmable overwrite is used to maximize the data erase efficiency. The data is overwritten by random numbers. In addition, the data overwrite method can be customized to meet each organization's security requirements or it can be set as it is specified in DoD 5220.22-M.

Data Security Kit (DSK) and Common Criteria Certification/ISO-15408

Organizations may require enhanced security features to meet regulatory requirements or mitigate specific threats. The optional Sharp Data Security Kit available on most models brings device security to a higher level with features such as manual data overwrite and auto data overwrite at power-up, hidden pattern printing and detection, and more. In addition, select DSK models are equipped with a Trusted Platform Module (TPM) chip which helps further prevent unwanted access to data storage areas including hard disk drive and solid-state drive.



- **Trusted Platform Module**

  Trusted Platform Module is an industry standard computer chip that uses **cryptoprocessor technology** to protect hardware such as hard disk drives and **solid-state drives** inside MFPs and printers. When a new Sharp MFP is installed with a data security kit, the TPM chip inside the machine initiates a cryptographic key that cannot be accessed by software. A matching cryptographic key is encoded during the boot-up process. If the two keys do not match, access to the device is denied. TPM is an important component of a customer's network strategy and can help protect them from data storage attacks.

The Common Criteria (CC) is a set of guidelines used to evaluate information technology equipment. It is the technical basis for an international agreement and the specification is tested by independent laboratories. Sharp has always aimed to achieve a secure and productive office environment through the development of our digital MFPs. Meeting evolving security standards, such as Common Criteria, is important to ensure organizations confidently handle the most sensitive data on Sharp devices. Recently Sharp achieved the industry's first Common Criteria certification against the latest **Protection Profile for Hardcopy Devices v1.0 (HCD-PP v1.0)**.

- **Protection Profile for Hardcopy Devices v1.0 (HCD-PP v1.0)**

  HCD-PP v1.0 (dated September 10, 2015) is the latest requirement for multifunction printers based on the security requirements specified by the U.S. and Japanese governments, providing the most up-to-date security validation for businesses, government and military offices. It aims to protect the information processed by an MFP from security threats and includes specifications for encryption and firewalls. The HCD-PP v1.0 was developed through the industry collaboration with the National Information Assurance Partnership (NIAP) and the Information-technology Promotion Agency, Japan (IPA). HCD-PP v1.0 now defines security for the MFP as a whole, and as such, reference to the Evaluation Assurance Level ("EAL") is no longer used.

Data and Information Security*

Sharp standard MFP security features coupled with the optional Data Security Kit protect and control the major MFP systems and subsystems (print, copy, scan, fax jobs, network settings, memory components and local user interface). The Sharp data encryption method uses the Advanced Encryption Standard (AES) algorithm 256-bit on all data before it is written to RAM and the hard disk drive. It also can provide up to 10 times data overwriting routines to minimize information leakage. Select Sharp MFPs support DoD 5220.22-M data overwrite for optimal data security.

SHARP STANDARD FEATURES		WITH OPTIONAL DATA SECURITY KIT (DSK)	
Level 1 **Standard Security Features**	**Level 2** **Advanced Security Mode**	**Level 3** **DSK Standard Security Mode**	**Level 4** **HDC Protection Mode**
Basic security including user authentication, network protection, logs, etc.	Basic security plus data overwrite and encryption.	Trusted Platform (TPM) based advanced security including manual data overwrite, firmware digital signature, optional feature restrictions.	Trusted Platform (TPM) based advanced security configured to comply HCD protection profile v1.0 enforcing security and forced feature restrictions.
<Additional Security Layer> Sharp Partner Program Member products and applications.	**<Additional Security Layer>** Sharp Partner Program Member products and applications.	**<Additional Security Layer>** Sharp Partner Program Member products and applications.	**<Additional Security Layer>** No ID card readers, Sharp OSA applications are allowed.

Access Control Security

To limit unwanted access to each device, Sharp MFPs can utilize account codes, user/group profiles, passwords, or external user accounts contained in the local device address book or global user directory. All user credentials are transferred using a proven combination of Kerberos, Transport Layer Security (TLS) or AES 256-bit encryption to help avoid interception. In addition, select Sharp MFPs can be registered as a computer with the Microsoft Active Directory® domain, providing strong Kerberos token-based authentication and authorization. IT administrators can securely and conveniently manage devices and access to “scan-to folders” and “scan-to emails” with an advanced level of control.

* Encryption level and security features vary per model. Please see the Security Compatibility Charts for more details.

Data Security at End-of-Lease

When the device is retired, it is important that the data retained within the device be removed or rendered in an unreadable format. Select Sharp document systems offer standard End-of-Lease features to ensure that all confidential data is overwritten before the device leaves the facility.

- **How is the data erased?**

  When the End-of-Lease feature is executed the data is overwritten up to 10 times. If a DSK is installed or standard MFP security feature is enabled, the data is overwritten with random numbers. The amount of times the data overwrite occurs and custom overwrite methods can be configured.

- **What happens at the completion of End-of-Lease data erase?**

  While data is being erased, the data deletion progress will be displayed. After erasing is completed, the MFP will be rebooted automatically. The data erase completion report will then be printed out.

The following data will be erased using End-of-Lease data overwrite feature:

Sharp helps protect your data and personal information from the first day of operation to the time of trade-in.

Setting Values	Job Image	User Input Data		System Data
• System Settings/Web Settings • Admin Password • Network Settings • Soft Switch	• Job (image) Data on Each Mode • Unprinted Fax/Internet Fax/Direct SMTP Data • Document Filing Data • Data Stored in NAS Area • Image Data in Memory Box • Print Release Job Data	• Address Book • User Information (including User Index/User Count) • Job Program • Organization/Group List/Page Limit Group List/ Authority Group List/ Favorite Operation Group List • Billing Codes • Words Registered in Software Keyboard • Scanner Default Sender • Scanner Default Destination • Fax/I-Fax Forwarding Destination/ Sender/ Allow/Reject Sender	• Polling Protection Number • Dial-in Number • Auto Forward Table • Destination for Document Admin • Fixed Phrase (Text/Image Printing/ Subject/File Name/Body Text/Email Footer/Tracking Information) • Metadata Set • Custom Links • Sharp OSA Embedded Application • Custom Stamp/Custom Watermark • Color Profile • Download Font	• Job Status Completion Queue Data • Job Log • Encrypted Communication Control Information • Keyboard Input Character Translation Information

Data Security During Operation

Organizations are under constant threat of increasingly menacing cyberattacks. To help prevent or better respond to such threats, select Sharp multifunction printers are armed with leading-edge, multi-layered security features, including **Firmware Attack Prevention and Self Recovery**, which can help identify a malicious intrusion and restore the machine firmware to its original state. The **Application Whitelisting** feature detects access attempts to the machine file system and denies access if the source data is not on the whitelist.

Manage your devices, control access, and protect your data.

Additionally, built-in **Authority Groups** help manage and restrict copying, printing and scanning features to safeguard data as well as control costs. Administrators can also apply **Active Directory® Group Policy** to the device on most models, which offers centralized configuration and control for select security and print driver settings. **Sharp Remote Device Manager** (SRDM) enables both IT administrators and service providers to monitor and centrally manage their MFP fleets by maintaining security policies, deploying scheduled admin password changes and more. Sharp MFPs can also help keep confidential documents secure with **Confidential Printing**, which requires users to enter a PIN code to print them. Also, **256-bit data encryption** combined with **up to 10-times data overwrite** helps ensure the customer's information is protected. When it is time to trade the machine in, most Sharp MFPs include an **End-of-Lease** feature that can erase all data and personal information, as well as print a confirmation report for verification.

Critical features that help organizations prevent threats.

- **Firmware Attack Prevention & Self Recovery**

The Firmware Attack Prevention and Self Recovery feature on select Sharp MFPs **helps protect the main unit firmware system files from malicious attacks**. The machine stores a backup copy of the main unit firmware in a hidden partition of the MFP hard disk drive. Each time the MFP is turned on, or wakes from auto-off mode, the main unit firmware running in the machine is compared to the backup copy stored on the hard disk drive using a hash value. If the two hash values do not match, the machine will be halted and display a message prompting the user to turn off the power and turn it back on. This action triggers the machine to restore the main unit firmware running in the machine with the backup copy stored on the hard disk drive. This event is recorded in the machine real-time event log and can also be sent to the administrator via email, as well as included in the customer's syslog or SIEM (system information and event management) system. This feature is standard on select Sharp MFPs and can be enabled through the MFP web user interface System Settings.

Note, if a data security kit is installed on the machine, a higher level of protection is available with the Trusted Platform Module, which supersedes the Firmware Attack Prevention and Self Recovery feature.

- **Application Whitelisting**

Combating IT threats is more challenging when devices are network-connected to offer advanced features. In order to mitigate risks, the Sharp Application Whitelisting feature, available on select Sharp MFPs, protects against unofficial software and application updates by detecting access attempts to the MFP's file system and denying access if the source data is not on the whitelist.

- IT administrators can be notified of whitelisting events via email or integrated with the organization's Syslog or SIEM (Security Information and Event Management) systems using the MFP's audit log feature.

Protect against unauthorized access to the MFP file system with Application Whitelisting.

User Authentication, Authorization and Restriction

Most Sharp MFPs can limit unwanted access with user authentication. All user credentials are transferred using a combination of Kerberos and Transport Layer Security (TLS) to help avoid interception. In addition, select models can be registered with Active Directory® domain offering Kerberos token-based Active Directory authentication. "Secure mode" to request a user password upon logon is also supported for ID card authentication, minimizing the risk of passwords being compromised.

User authentication types:

- Local user list
- LDAP
- Active Directory
- External authority with Sharp OSA®-enabled applications

User authentication methods:

- PIN number
- Username and password
- ID card

Once the user is authenticated, access to certain features are either granted or restricted. IT administrators can securely and conveniently manage devices and access to specific features with an advanced level of control.

Sharp Security Suite helps mitigate threats through authentication and restriction.

Key features for authorization and access restriction:

- Password protected admin access
- Print, scan, copy and fax function control
- Access control for the MFP's HDD
- Page limit control
- Color printing restriction
- Forced pull printing
- Destination entry restriction
- Domain restriction
- Forced scan to logged-in users' email address
- Forced scan to logged-in users' home folder
- Security control and default setting using Active Directory Group Policy with Sharp ADM template files (Device settings and Print Driver settings)

Single Sign-on (SSO) to Network and Cloud Resources

IT administrators often face challenges sustaining productivity while maintaining security. Select Sharp MFPs offer options for single sign-on to add operational convenience while validating user access to the device and network.

When an MFP joins a domain, the MFP establishes trusted relationships with network resources. IT administrators can provide secure Kerberos token-based SSO to network and home folders as well as Microsoft® exchange server.

For Google Drive™ online storage service, Gmail™ webmail service and select cloud services, an OAuth token is used to establish SSO. Sharp provides IT administrators greater flexibility and options to provide convenience to users while maintaining organization's data and information security.

Single sign-on supported resources:

- Network folders and home folders
- Exchange server
- Gmail webmail service
- Cloud services (such as Box™, Google Drive™, OneDrive® for Business and SharePoint® Online)
- Sharp OSA® applications

Network Security

Network security is fundamental in protecting organizations' network and resources from improper use, intrusions, denial-of-service (DoS) attacks and unauthorized access and modification. Sharp MFPs help IT administrators and security officers design comprehensive security environments to ensure only authorized parties and protocols are allowed to access their network with Sharp MFPs and printers.

- Network communication protection via TLS
- SHA-2 certificate
- Wireless LAN communication protection
- Secure protocols such as Kerberos, IPv6, and SMBv3
- IP address and MAC address filtering
- Port management
- Disable/enable features and functions
- SNMPv3 communication
- Device certificates
- CA Certificates
- IEEE802.1X™ authentication

Document Security

Protection for sensitive documents can be achieved through various document security features including encrypted Adobe® PDF files for scanning and printing, and document filing features, which allow files to be retained until they are needed – preventing unauthorized access to confidential information. Secure access to documents for printing and scanning can also be achieved with Synappx Go on your mobile device. This powerful application helps your content move with you throughout the workplace. To learn more about Synappx, please visit the Sharp USA website.

Document security at the device:

- Encrypted PDF
- Secure document filing features
- Pull printing/PIN printing
- Secure watermarks

Document security with Synappx Go:

- Secure print release
- Printing from cloud storage
- Scanning to self or the cloud
- NFC tag for optimized security

Email Security

Email is the most frequently used and critical business communication method at many organizations. Sharp MFPs offer various email security features to enhance data privacy capability to cultivate trust and reputation. For more integrated email security, select Sharp MFPs offer the Email Connect feature which establishes a direct connection for Exchange servers or Gmail. This also ensures the email is sent by the logged in user (not via the generic MFP address). The email containing the scanned document is then stored in user's sent folder. For the Exchange server, all server rules and security (e.g. size limit, destination restrictions) are automatically applied to scan-to-email maintaining the organization's email policy.

- Digital Signature and encryption with S/MIME
- Exchange server integration (authentication and restriction)
- Gmail webmail integration
- Send email from logged in user
- Store sent email on sent item folder
- Domain control
- Destination restriction

Enabling the mobile workforce safely and securely for on-the-go access.

Mobile and Wireless Security

Adoption of mobile technology is critical for organizations to be innovative and agile. However, IT administrators often face risks by allowing personal devices to access critical business information. Sharp provides optimal security for mobile users to connect with the corporate network via the MFPs and printers.

- User authentication (Active Directory, LDAP, Local User List, PIN number)
- SNMP security
- Print retention
- Serverless Print Release (select MFP models)

In addition, select Sharp MFPs support “Access Point” mode which allows mobile users to connect via Wi-Fi for printing from and scanning to their mobile devices – without having to connect through the corporate network. The Access Point mode prevents data exchange between Wi-Fi and wired interfaces.

Audit Trail

Tracking user activities and events are important and helpful to maintain proper security measures. Granular audit log and job log features from Sharp provide comprehensive auditing of all user activities and device events.

- **Job Log**

  Certain regulations require parameters, such as “to,” “from,” “when” and “file name” to be logged, reviewed and archived for conformance.

- **Event Log (Supports RFC 5424/3164 Standard Syslog Protocol)**

  With select Sharp MFPs, the IT team can monitor events such as when/what setting changes were made, which IP address have accessed the device, and when firmware is updated. The MFP’s real-time event log can be integrated with the organization’s syslog or SIEM (Security Information and Event Management) to trigger immediate security alerts to IT administrators.

Print Security and IT Environment Compatibility

Printing is the most common daily task in many workplaces. An optimized printing experience is critical to maintaining productivity. At the same time, IT departments face increased demand for print security and compliance such as HIPAA and FERPA.

• Printing Standard and Compatibility

MFP compatibility with key IT environments is important for many organizations. Sharp MFPs and printers are tested and validated by major technology providers.

- WHQL-certified print driver to ensure Microsoft compatibility to meet security standard in the Microsoft environment
- Citrix-ready evaluation to ensure Sharp MFP and printer performance in the Citrix environment
- Device types to ensure printing performance in the SAP® environment
- Healthcare application compatibility including Cerner® and McKesson

Both Serverless Print Release and print retention features are available to mobile users via the Sharpdesk® Mobile application to assist with mobile print security compliance.

• User Authentication and Print Retention

When user authentication is enabled, all print jobs are authenticated and only validated print jobs are accepted on the device. In addition, with Sharp document systems, users can send print jobs and store them on the MFP's hard disk drive, which can then be securely released using a PIN number or via user authentication. It also helps minimize waste from jobs abandoned at the printer.

• Serverless Print Release

To add more convenience with security, select Sharp MFPs can be designated as a print server, and have the job released on another supported machine that is on the same network. Users can simply walk up to the most convenient printer and securely release their print jobs. It is a standard feature on select MFPs and up to five client machines can be connected for this function.

OSA® Sharp Open Systems Architecture

• Sharp OSA-enabled Applications

For more advanced control, Sharp and the Sharp Partner Program community offer a broad selection of tightly integrated print release and output management software, as well as advanced security features such as user authentication, authorization, and accounting. For more information, please visit the Sharp USA website.

Fax Security

The architecture of **Sharp MFPs provides a logical separation** between the fax telephone line and LAN, helping to **prevent attackers from gaining access** to the internal systems of the MFP or the local network. Additional security features are incorporated such as disabling broadcasting, allowing and rejecting reception from specific numbers, user authentication and more.

- Logical separation between the fax telephone line and LAN
- Only fax protocol is permitted in the fax modem
- MFP architecture is designed to minimize the risk of transmitting malicious data (virus, etc.) to the main system.
  - UART (Universal Asynchronous Receiver/Transmitter) communication on fax controller cannot control MFP controller.
  - Image transmission between fax controller and MFP controller is also separated from UART communication.

CENTRALIZED FLEET MANAGEMENT

Sharp continues to provide optimal security to its customers, immediately assessing newly discovered security threats and their impact. Security measures are often released through firmware or application updates to maximize security. In addition, intelligent management tools help monitor and optimize security and operation settings on Sharp devices.

SRDM enables administrators to take control of system features and simplify installation and management.

Sharp Remote Device Manager (SRDM)

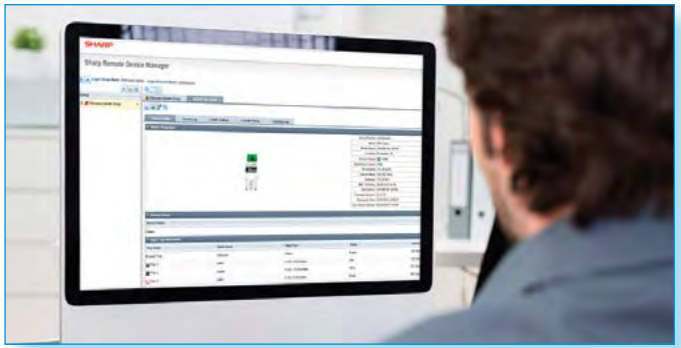
SRDM is the ideal tool for IT administrators to centrally manage, monitor and configure their Sharp MFP and printer fleets to optimize device uptime. SRDM also helps maintain optimal MFP and printer security. With this application, IT administrators can create and centrally force a custom security policy to devices on their network. If security settings are altered, SRDM will notify the administrator(s) or client incident management systems for them to immediately respond to potential security risks. SRDM can also intelligently reset security settings to the defined security policy when changes are detected. In addition, select Sharp display products can be remotely managed and monitored with SRDM V2.11 and later.*

Key Features For MFPs and Printers:

- Manual or automated device discovery
- Device status and consumable monitoring
- Security policy management
- Scheduled power management
- Centralized administrator password management
- Remote Front Panel access for quick user assistance
- Email notifications
- Firmware management
- Device cloning and storage backup
- Centralized SIEM integration
- Pre-configured driver distribution

Key Features For Display Products:

- Display device registration
- Access to device web pages
- Scheduled power management
- Remote input management
- Remote device status monitoring
- Additional device information, such as serial number



* For a complete list of supported models, please visit the SharpUSA website.

SECURITY FEATURES AT-A-GLANCE*

DATA AND INFORMATION SECURITY

Sharp MFPs provide a wide range of data security capabilities as an integral part of the device's architecture, or as a function of an optional Data Security Kit (DSK).

- Automatic Data Overwrite
- Manual Data Overwrite**
- Custom and DoD 5200.22-m
- End-of-Lease Data Erase
- Power-Up Data Overwrite**
- Up To 10-Times Data Overwrite
- 256-Bit AES Data Encryption
- Trusted Platform Module (TPM)**
- Application Whitelisting
- Self-recovery Firmware
- Data Back Up

ACCESS CONTROL SECURITY

Sharp MFPs can be configured to help provide iron-clad user access control.

- User Authentication (Local/LDAP/Active Directory)
- Group Authorization
- Active Directory Group Policy
- Page Limit Control
- Password Protected Access to Device Home Page (Administrator and User)
- User Authority Setting
- Single-Sign-On (Kerberos and OAuth Token)
- Management of Currently Logged-In Users
- USB Card Reader Support
- ID Card User Authentication
- Scan-to-Home and Scan-to-Me
- Restrict List Printing**
- Disable Destination Selection
- Disable Address Book Registration
- Receipt Rejection from Specified Sender(s)

NETWORK SECURITY

Network security with MFPs and printers is one of the most critical concerns. Sharp offers various features to help protect organizations' IT network.

- TLS Encryption (2048 bit Key supported)
- Security Policy Management
- SNMPv3 Support
- SNMP Community Name Support
- Kerberos
- IPv6 and IPsec
- Device Certificates
- IP Address Filtering
- MAC Address Filtering
- Port Control
- IEEE 802.1X™ Authentication

EMAIL SECURITY

Send to email is one of the most common tasks for document scanning. Organizations can ensure secure send to email with Sharp MFPs.

- User Authentication
- S/MIME
- Send Only to Logged in User's Email Address
- Send from Logged in User (Email Connect)
- Store Sent Email on Sent Item Folder
- Apply Exchange Email Rules to Send to Email
- Single-Sign-On (SSO) (Kerberos and OAuth token)

FAX SECURITY

(Fax option may be required)

Customers who have Sharp MFPs equipped with the fax option can be assured that the architecture of the MFP provides a logical separation between the fax telephone line and the Local Area Network (LAN).

- Segregated Fax Line
- Prevention of Junk Fax
- Confidential Fax

MOBILE AND WIFI SECURITY

Embrace mobile printing and scanning by eliminating unauthorized access to corporate network.

- User Authentication
- Print Retention
- PIN Number Printing
- Access Point WiFi Mode

DOCUMENT SECURITY

Protecting data on an MFP is only part of what's required to ensure complete end-to-end document security. Sharp MFPs employ a number of means, that if implemented, can help assure customers that their document data will remain confidential.

- Secure Print Release with a PIN Number
- Encrypted PDF (AES 256 bit Encryption)
- Encrypted PDF Lockout
- Tracking Information Print
- Hidden Pattern Print and Detection**

PRINT SECURITY

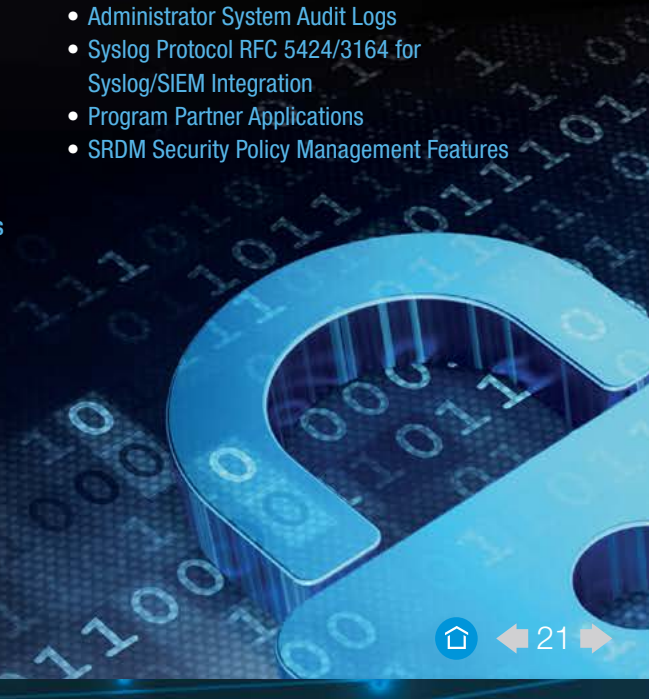
Printing is the most common use of MFPs and printers. Sharp helps protect and secure print jobs during transition and at the printer.

- User Authentication
- TLS Encryption
- Secure Print Release with a PIN Number
- Serverless Print Release
- Sharp OSA Applications

AUDIT TRAIL SECURITY

Sharp MFPs offer extensive internal logging. Audit tracking is often a critical component to monitor user and device activity. Sharp MFPs can also provide the following information:

- Job Log and Usage Tracking
- Image Job Log
- Reporting and Data Export
- Administrator System Audit Logs
- Syslog Protocol RFC 5424/3164 for Syslog/SIEM Integration
- Program Partner Applications
- SRDM Security Policy Management Features



*Color Advanced and Essentials Series MFPs. **Optional Data Security Kit Feature.

Sharp Security Suite Compatibility (**Monochrome**)

	MX-B376W/B476W MX-B376WH/B476WH	MX-M2651/M3051/ M3551/M4051/M5051/M6051	MX-M3071/M3571/ M4071M5071/M6071 MX-M3071S/M3571S/ M4071S/M5071S/M6071S	MX-M7570	MX-M905	MX-M1056/M1206 (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS						
Speed	37/47 ppm	26/30/35/40/50/60 ppm	30/35/40/50/60 ppm	75 ppm	90 ppm	105/120 ppm
Hard Disk Drive	Std	Std	Std	Std	Std	Std
Data Security Kit (DSK) & Common Criteria Certification						
Data Security Kit (optional)	MX-FR63U	MX-FR64U	MX-FR64U	MX-FR60U HCD PP (Protection Profile for Hardcopy Devices) v1.0 support	MX-FR54U HCD PP (Protection Profile for Hardcopy Devices) v1.0 support	MX-FR66U
Common Criteria Certification	Certified HCD V1.0 Dated 2015 (non-H models only)	Certified HCD V1.0 Dated 2015	Certified HCD V1.0 Dated 2015 (non-S models only)	Certified HCD V1.0 Dated 2015	-	-
Data and Information Security						
Data Overwrite (Auto)	Std	Std	Std	Std	Std	Std
Data Overwrite (Manual)	Yes	Yes	Yes	Yes	Yes	Yes
Data Overwrite At Power-up	Yes	Yes	Yes	Yes	Yes	Yes
Up To 10-times Overwrite	Up to 10 times	Up to 10 times	Up to 10 times	Up to 10 times	Up to 10 Times	Up to 7 times
Custom Overwrite Pattern	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	-
256-bit Data Encryption	Std	Std	Std	Std	Std	Std
End-of-Lease Data Erase	Std	Std	Std	Std	Std	Std
Trusted Platform Module (TPM)	Yes	Yes	Yes	Yes	Yes	Std
Application Whitelisting	Std	Std	Std	-	-	Std
Firmware Attack Prevention & Self Recovery	Std	Std	Std	-	-	Std
Access Control Security						
User Authentication (Local Address Book)	Std	Std	Std	Std	Std	Std
User Authentication (LDAP)	Std	Std	Std	Std	Std	Std
User Authentication (Active Directory)	Std Group Policy	Std Group Policy	Std Group Policy	Std	Std	-
Group Authorization	Std	Std	Std	Std	Std	Std
Page Limit Control	Std	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	Std	Std	Std	Std	Std	Std
Restrict List Printing	Yes	Yes	Yes	Yes	Yes	Yes
Scan To Home Directory	Std	Std	Std	Std	Std	-
Scan Only To Logged-in User's Email	Std	Std	Std	Std	Std	Std
Disable Destination Method Selection	Std	Std	Std	Std	Std	Std
Disable Address Book Registration	Std	Std	Std	Std	Std	Std
Receipt Rejection From Specified User(s)	Std	Std	Std	Std	Std	Std
Lock Users After 3 Tries	Std	Std	Std	Std	Std	Std
USB Card Reader Support	Std	Std	Std	Std	Std	Std

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Items indicated with "Yes" in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Monochrome**) *continued*

	MX-B376W/B476W MX-B376WH/B476WH	MX-M2651/M3051/ M3551/M4051/M5051/M6051	MX-M3071/M3571/ M4071M5071/M6071 MX-M3071S/M3571S/ M4071S/M5071S/M6071S	MX-M7570	MX-M905	MX-M1056/M1206 (without Fiery option)
Network Security						
Active Directory Integration	Std Group Policy	Std Group Policy	Std Group Policy	Std	Std	-
TSL Encryption	Std	Std	Std	Std	Std	Std
2048 Certificate	Std	Std	Std	Std	Std	-
Security Policy Management	Std	Std	Std	Std	Std	Std
SNMPv3 Support	Std	Std	Std	Std	Std	Std
SNMP Community String Support	Std	Std	Std	Std	Std	Std
Kerberos	Std	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std	Std
Device Certificates	Std	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std	Std
MAC Address Filtering	Std	Std	Std	Std	Std	Std
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std	Std
CSRF Measure	Std	Std	Std	Std	Std	Std
Admin Password Protection*	Std	Std	Std	Std	Std	Std
IEEE 802.1X	Std	Std	Std	Std	Std	Std
SHA-2 Secure Hash Algorithm	Std	Std	Std	Std	Std	Std
S/MIME Public Key Encryption	Std	Std	Std	Std	Std	-
Fax Security (Fax Option May Be Required)						
Separation Between Fax and Network	Std	Std	Std	Std	Std	-
Confidential Fax	Std	Std	Std	Std	Std	-
Filter Junk Fax	Std	Std	Std	Std	Std	-
Document Security						
Job Status Display Only Logged-in User	Std	Std	Std	Std	Std	Std
Secure Pull Print FTP/SMB	Std	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	Std	Std	Std	Std	Std	Std
Serverless Print Release	Std	Std	Std	Std	Std	-
Encrypted PDF Transmission	Std	Std	Std	Std	Std	Std
Encrypted PDF Direct Printing	Std	Std	Std	Std	Std	Std
Hidden Security Pattern Print	Yes	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Detection	Yes	Yes	Yes	Yes	Yes	Yes
Audit Trail and Other Security						
Job Log and Usage Tracking	Std	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	Std	Std	Std	Std	Std	Std
Digitally Signed Firmware	Std	Std	Std	Std	Std	-

* Admin password can be protected when a Sharp MFP is accessed from FTP, preventing password leakage.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Color**)

	MX-C300P	MX-C250/C300W	MX-C303W/C304W MX-C303WH/C304WH	MX-2651/3051/ 3551/4051/5051/6051	MX-3071/3571/ 4071/5071/6071 MX-3071S/3571S/ 4071S/5071S/6071S	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS							
Speed	30ppm	25/30 ppm	30 ppm	26/30/35/40/50/60 ppm	30/35/40/50/60 ppm	70/80 ppm	70/80 ppm
Hard Disk Drive	-	-	Std	Std	Std	Std	Std
Data Security Kit (DSK) & Common Criteria Certification							
Data Security Kit (optional)	-	-	MX-FR61U	MX-FR62U	MX-FR62U	MX-FR55U	MX-FR58U
Common Criteria Certification	-	-	Certified HCD V1.0 Dated 2015 (non-H models only)	Certified HCD V1.0 Dated 2015	Certified HCD V1.0 Dated 2015 (non-S models only)	-	-
Data and Information Security							
Data Overwrite (Auto)	-	-	Std	Std	Std	Std	Std
Data Overwrite (Manual)	-	-	Yes	Yes	Yes	Yes	Yes
Data Overwrite At Power-up	-	-	Yes	Yes	Yes	Yes	Yes
Up To 10-times Overwrite	-	-	Up to 10 times	Up to 10 times	Up to 10 times	Up to 10 times	Up to 10 times
Custom Overwrite Pattern	-	-	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset
256-bit Data Encryption	-	-	Std	Std	Std	Std	Std
End-of-Lease Data Erase	-	-	Std	Std	Std	Std	Std
Trusted Platform Module (TPM)	-	-	Yes	Yes	Yes	Yes	Yes
Application Whitelisting	-	-	Std	Std	Std	Std	-
Firmware Attack Prevention & Self Recovery	-	-	Std	Std	Std	Std	-
Access Control Security							
User Authentication (Local Address Book)	Std	Std	Std	Std	Std	Std	Std
User Authentication (LDAP)	-	Std	Std	Std	Std	Std	Std
User Authentication (Active Directory)	-	-	Std Group Policy	Std Group Policy	Std Group Policy	Std	Std
Group Authorization	-	-	Std	Std	Std	Std	Std
Page Limit Control	Std	Std	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	-	-	Std	Std	Std	Std	Std
Restrict List Printing	-	-	Yes	Yes	Yes	Yes	Yes
Scan To Home Directory	-	-	Std	Std	Std	Std	Std
Scan Only To Logged-in User's Email	-	-	Std	Std	Std	Std	Std
Disable Destination Method Selection	-	-	Std	Std	Std	Std	Std
Disable Address Book Registration	-	-	Std	Std	Std	Std	Std
Receipt Rejection From Specified User(s)	-	Std	Std	Std	Std	Std	Std
Lock Users After 3 Tries	-	-	Std	Std	Std	Std	Std
USB Card Reader Support	-	-	Std	Std	Std	Std	Std

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Color**) *continued*

	MX-C300P	MX-C250/C300W	MX-C303W/C304W MX-C303WH/C304WH	MX-2651/3051/ 3551/4051/5051/6051	MX-3071/3571/ 4071/5071/6071 MX-3071S/3571S/ 4071S/5071S/6071S	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
Network Security							
Active Directory Integration	-	-	Std Group Policy	Std Group Policy	Std Group Policy	Std	Std
TSL Encryption	-	-	Std	Std	Std	Std	Std
2048 Certificate	Std	-	Std	Std	Std	Std	Std
Security Policy Management	-	Std	Std	Std	Std	Std	Std
SNMPv3 Support	-	-	Std	Std	Std	Std	Std
SNMP Community String Support	-	Std	Std	Std	Std	Std	Std
Kerberos	-	Std	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std	Std	Std
Device Certificates	Std	Std	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std	Std	Std
MAC Address Filtering	Std	Std	Std	Std	Std	Std	Std
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std	Std	Std
CSRF Measure	Std	-	Std	Std	Std	Std	Std
Admin Password Protection*	-	Std	Std	Std	Std	Std	Std
IEEE 802.1X Support	-	-	Std	Std	Std	Std	Std
SHA-2 Secure Hash Algorithm	-	-	Std	Std	Std	Std	Std
S/MIME Public Key Encryption	-	-	Std	Std	Std	Std	Std
Fax Security (Fax Option May Be Required)							
Separation Between Fax and Network	-	Std	Std	Std	Std	Std	-
Confidential Fax	-	Std	Std	Std	Std	Std	-
Filter Junk Fax	-	Std	Std	Std	Std	Std	-
Document Security							
Job Status Display Only Logged-in User	-	-	Std	Std	Std	Std	Std
Secure Pull Print FTP/SMB	-	-	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	-	-	Std	Std	Std	Std	Std
Serverless Print Release	-	-	Std	Std	Std	Std	Std
Encrypted PDF Transmission	-	-	Std	Std	Std	Std	Std
Encrypted PDF Direct Printing	Std**	Std**	Std	Std	Std	Std	Std
Hidden Security Pattern Print	-	-	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Detection	-	-	Yes	Yes	Yes	Yes	Yes
Audit Trail and Other Security							
Job Log and Usage Tracking	-	-	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	-	-	Std	Std	Std	Std	Std
Digitally Signed Firmware	-	-	Std	Std	Std	Yes	Yes

* Admin password can be protected when a Sharp MFP is accessed from FTP, preventing password leakage. ** Only supports the file without a password.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility

	MX-B467P	MX-B467F	MX-B557P/B707P	MX-B557F	MX-C357F	MX-C407F	MX-C507F	MX-C407P	MX-C507P	MX-C607P
GENERAL MFP FEATURES/FUNCTIONS										
Speed	46 ppm	46 ppm	55/70 ppm	55 ppm	35 ppm	40 ppm	50 ppm	40 ppm	50 ppm	60 ppm
Hard Disk Drive (HDD)	N/A	500 GB (option)	500 GB (option)	500 GB (Std)	500 GB (option)	500 GB (option)	500 GB (Std)	500 GB (option)	500 GB (option)	500 GB (option)
Data Security Kit (DSK) & Common Criteria Certification										
Data Security Kit (optional)	-	-	-	-	-	-	-	-	-	-
Common Criteria Certification	No	No	No	No	No	No	No	No	No	No
Data and Information Security										
Data Overwrite (Auto)	Yes (DRAM only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Overwrite (Manual)	Yes (NVRAM only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Overwrite (Scheduled)	n/a	No	No	No	No	No	No	No	No	No
Data Overwrite (1, 3 or 7 times)	n/a	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
Custom Overwrite Pattern (complies with DoD)	n/a	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
256-bit Data Encryption	n/a	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
Out of Service Data Erase (End-of-Lease)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure Element Feature (similar to TPM)	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Application Whitelisting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure Boot (similar to firmware attack prevention)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Continuous Integrity Check	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Access Control Security										
User Authentication (Local Address Book)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
User Authentication (LDAP)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
User Authentication (Active Directory)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Group Authorization	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Page Limit Control (with device quota app)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Restrict Color Printing (Permissions setting)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Restrict List Printing	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Scan To Home Directory (with scan center app)	No	Yes	No	Yes	Yes	Yes	No	No	No	No
Scan Only To Logged-in User's Email	No	Yes	No	Yes	Yes	Yes	No	No	No	No
Disable Destination Method Selection	No	No	No	No	No	No	No	No	No	No
Disable Address Book Registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Lock Out After Failed Login Attempts (panel)	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries	1-10 tries
User Lock Out Time (panel)	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes
User Lock Out Time (webpage)	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility *continued*

	MX-B467P	MX-B467F	MX-B557P/B707P	MX-B557F	MX-C357F	MX-C407F	MX-C507F	MX-C407P	MX-C507P	MX-C607P
Network Security										
Active Directory Integration	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer
TLS Encryption	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
2048-bit Certificate	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Security Policy Management	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SNMPv3 Support	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SNMP Community String Support	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Kerberos	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Secure SMTP server (HTTPS)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Device and Configurable CA Certificates	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
MAC Address Filtering	No	No	No	No	No	No	No	No	No	No
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
CSRF (Cross Site Request Forgery) Counter Measure	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Admin Password Protection	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IEEE 802.1X	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SHA-2 Secure Hash Algorithm	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
S/MIME Public Key Encryption	No	No	No	No	No	No	No	No	No	No
Fax Security (Fax Option May Be Required)										
Separation Between Fax and Network	-	Std	-	Std	Std	Std	Std	-	-	-
Confidential Fax and Filter Junk Fax	-	Std	-	Std	Std	Std	Std	-	-	-
Document Security										
Job Status Display Only Logged-in User	No	No	No	No	No	No	No	No	No	No
Secure Pull Print FTP/SMB	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Serverless Print Release	No	No	No	No	No	No	No	No	No	No
Encrypted PDF Transmission	No	No	No	No	No	No	No	No	No	No
Encrypted PDF Direct Printing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Print and Detection	No	No	No	No	No	No	No	No	No	No
Audit Trail and Other Security										
Job Log and Usage Tracking	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Configurable Device Identify Certificate	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Digitally Signed Firmware	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Restrict Firmware Update on device	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Disable physical ports (USB, parallel, etc)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std

Items indicated with “Yes” in the table above may require additional options or software downloads.

SHARP®

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February 2022

SHARP®

INFORMATION TECHNOLOGY REFERENCE GUIDE

sharp technology
empowers productivity

V6

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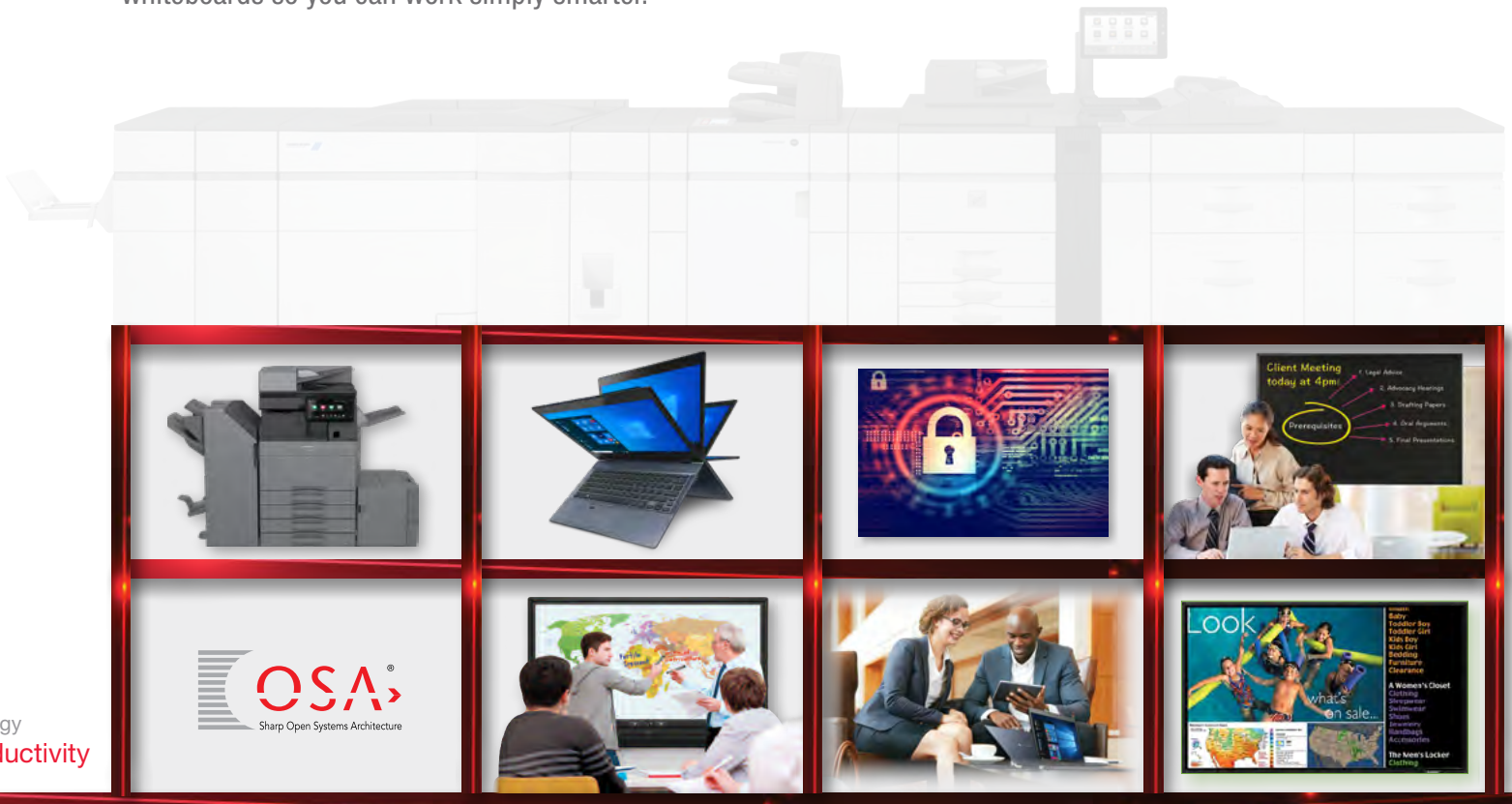
IT MANAGERS: SIMPLIFYING YOUR LIFE

As an **Information Technology** professional, you are no doubt faced with a unique set of challenges that pull you in many different and often conflicting directions. For example, you are forced to do more with less – supporting disparate assets throughout the sprawling enterprise with maximum interoperability and minimal resources. Internal policies and government regulations impose strict requirements on protecting the confidentiality of personal information. You also aspire to reduce the impact of your operations on the environment through reduced energy consumption and recycling.

At Sharp, we understand your goals and the issues that impede your ability to focus on strategic organizational objectives. **Our focus is to make your workplace smarter with technology that is simple to use**, whether you are working remotely or in the office. We help customers resolve collaboration struggles and close cybersecurity gaps, all while helping to drive efficiency in printing environments and using technology to help bring workers back to the office safely. Our technology solutions include advanced multifunction printers, laptops, displays and interactive whiteboards so you can work simply smarter.



SHARP'S COMMITMENT TO INNOVATION

For over 100 years, Sharp has been an innovator in electronics and office technology. From the Ever-Sharp pencil introduced in 1913, to a leader in the development of LCDs and modern document technologies, Sharp's vision of quality and reliability is embodied in each and every product we deliver. Our award-winning MFPs are no exception. They provide sophisticated features and unparalleled reliability to dramatically improve document workflows and business processes throughout your entire organization.

From copying, printing, scanning and faxing, to securely interacting with other network resources and business applications, Sharp MFPs can help boost productivity and minimize costs. In addition to our cutting-edge document systems, Sharp offers an array of display products to further meet your business needs, including interactive touchscreen displays, digital signage solutions and video wall systems.

Sharp's close relationship with both our dealers and our customers is the foundation for our unique product development process. This collaborative approach allows Sharp to deliver unique products and technologies that provide innovative customizable solutions to real-world business challenges.

History of Sharp Document Technology

innovation

Security (CC)

2001 Introduced the first Common Criteria validated Data Security Kits for MFPs.

2001 Pioneered Scan²™ technology with one of the first dual-head document feeders for a workgroup MFP.

Scan 2

2006 Launched Sharp OSA technology, the industry's first web services development platform and the Sharp Partner Program. A new benchmark for breadth of offerings.

2007 Introduced My Sharp™; customized support and training portal for end-users.

Sharp OSA

2008 Introduced the first fully retractable QWERTY keyboard as a standard feature of workgroup MFPs.

2008 Introduced A4 MFPs that offered the same advanced features as A3 models with a smaller footprint.

My Sharp

Pull-out Keyboard

2011 Led the industry with one of the first workgroup MFPs with easy-to-use tablet-style menu navigation.

2012 Introduced Triple Air Feed paper handling for the Sharp Pro Series MFPs.

2012 Released Sharpdesk® mobile printing/scanning solution.

A4 Scan Centric

2013 Launched Industry leading Color Pro Series MFPs with Full Bleed Booklet finishing, and a Fiery® Command Workstation® Integrated at the panel.

2014 Announced MICAS, a cloud-based, device management system.

2017 Achieved industry's first Common Criteria certification against the new international Protection Profile for Hardcopy Devices v1.0.

MICAS℠

2019 Launched Synappx applications to bring smart home convenience into the workplace.

2019 Launched Synappx applications to bring smart home convenience into the workplace.

2019 Brought the world's first certified Windows collaboration display to market.

Synappx

Windows Collaboration Display

2021 First workgroup vendor to include standard Microsoft Teams connector with native integration to accommodate hybrid work styles.

2022 Led the industry with expanded multi-level security features that include Bios Integrity Check, Application Whitelisting, Real-time Intrusion Detection and available Antivirus protection powered by Bitdefender.

DOCUMENT SOLUTIONS FOR THE TECHNOLOGY DRIVEN WORKPLACE

Sharp offers a broad range of award-winning multifunction printers (MFPs), ranging from compact A4 desktop models and A3 workgroup models to high-speed and light production models. Our MFPs offer many key features to help businesses of all sizes manage their document workflow safely and with greater efficiency.

- **Productive features that are easy to use**

  Select Sharp MFPs offer an intuitive tablet-style touchscreen combined with a built-in retractable keyboard that makes keying in email addresses and other data simple and easy. The walkup motion sensor on many models wakes up the machine as you are approaching so it is ready to perform when you arrive. The Sharp dual head document feeder can scan both sides of a document in a single pass.

- **Leading-edge security**

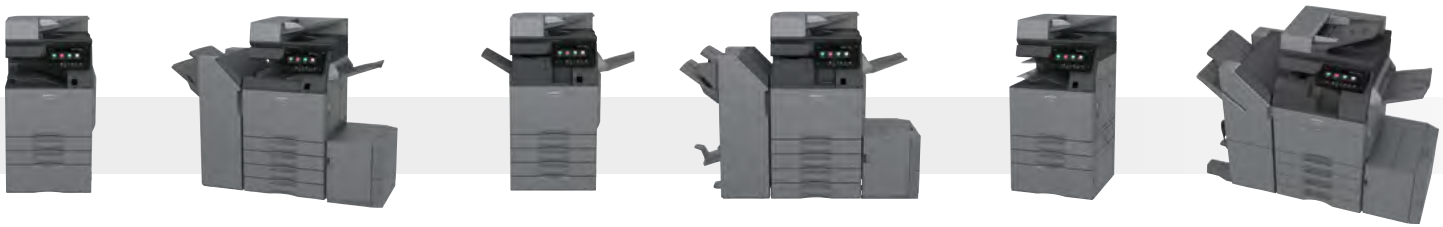
  Protecting your data is paramount for Sharp. Our MFPs are armed with leading-edge security features to help keep your business and personal data safe. Features like Active Directory® integration enable select Sharp MFPs to join the network domain as a PC, making them a trusted device. From Bios Integrity Check at startup, to the firmware that runs on that bios, to the applications and files that are allowed to load through the network interface, Sharp MFPs provide strong, well-balanced security protection to help keep your business data and personal information safe.

A3 Workgroup MFPs

The Sharp A3 workgroup category is our most popular because Sharp models in this category address the needs of most organizations. In order to provide customers with the most flexibility, Sharp offers MFPs in this category as Advanced Series models and Essentials Series Models so that businesses can select the document system that best fits their needs and budget.

- **Advanced Series Models**

  The Sharp Advanced Series models are designed for workflow centric customers and include features such as dual head scanning, which can scan both sides of an original in a single pass. Other standard features leverage artificial intelligence (AI) that provide automatic sensing of documents to automatically correct skew, detect original size and orientation, automatically set the resolution and amount of file compression, all to help the customer spend less time in front of the machine and more time at their business at hand.



- **Essentials Series Models**

  The Sharp Essentials Series models are built on the same platform as the Advanced Series and are designed for value conscious customers that need full multifunction features such as copying, printing and scanning but might need advanced workflow features. The Essentials Series models can also grow as your business needs change with many optional workflow features.

A4 Workgroup MFPs and Printers

Sharp A4 MFPs and printers offer performance and reliability in a compact design.

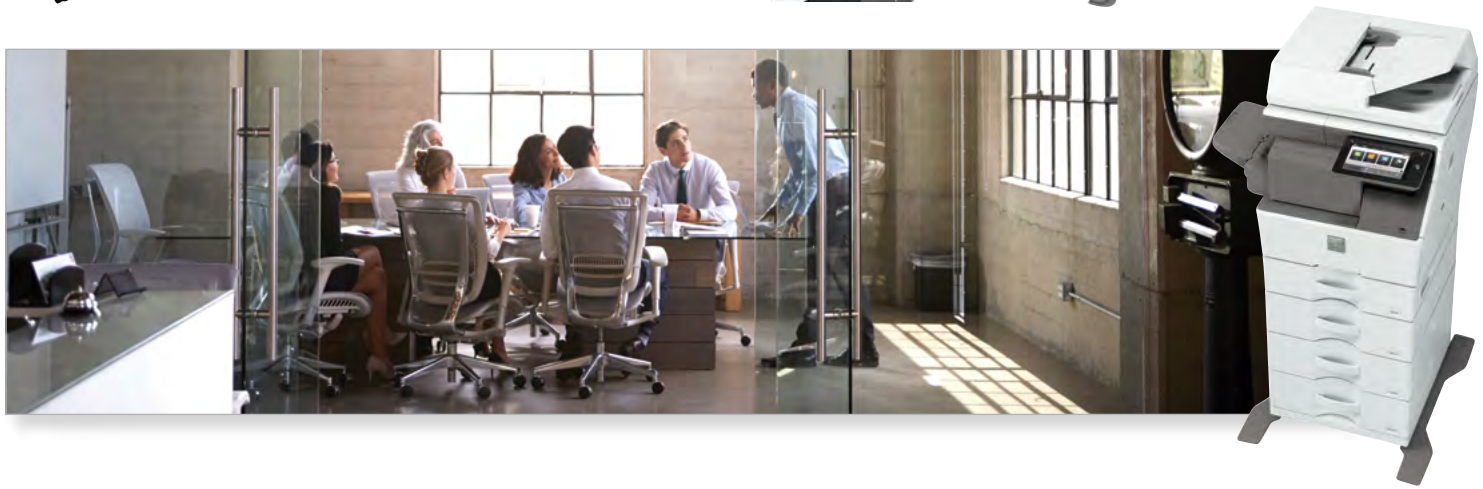
Sharp A4 MFPs are built for today's technology-driven office environments. These robust models deliver similar rich features and leading-edge security found in our A3 Advanced and Essentials Series lineup, all in a compact desktop design. Users will appreciate our easy-to-use, award-winning touchscreen that offers intuitive menu navigation and access to on-board user guides, consistent with most models in the Sharp MFP product line.

- **Strong Features for Enhanced Productivity**

  Sharp offers a range of color and monochrome MFPs and printers to accommodate all sized offices and deliver productive features such as Postscript printing, wireless networking, access to cloud services and more.

- **Scan and Print Files Easily from Mobile Devices**

  Easily scan and print files from tablets and smartphones with popular mobile technologies such as AirPrint® and Android™ printing framework. When optional wireless networking is added, users can also print directly to the MFP from mobile devices without interfering with the corporate network.



High Speed and Light Production MFPs

Unsurpassed productivity paired with intuitive operation provide optimum results.

Sharp high speed and light production MFPs are designed around the latest application and imaging technologies. These models offer a rugged design and a user-friendly experience, helping customers navigate document workflow with unmatched efficiency.

• High Speed Color Models

Built for high-volume office environments, central reprographics departments and copy rooms, Sharp high speed color MFPs deliver the performance and reliability customers expect. These models offer robust paper handling as an advanced Color Consistency System helps to ensure brilliant color output, page-after-page.

• Sharp Pro Series Light Production Models

The Sharp Color and Monochrome Pro Series lineup offer proven technology, award-winning features and exceptional image quality. Built with the customer in mind, producing professional-looking documents has never been easier. Organizations, large and small, will benefit from the versatility and productivity these models offer. The commonalities between monochrome and color models make outfitting and managing any in-house printing facility effortless.

PROFESSIONAL DESKTOP SOLUTIONS FOR HOME OR OFFICE

Enhance Your Productivity with Professional Desktop Solutions for Home or Office

Sharp offers a range of high-performance, lightweight laptop computers and desktop monitors for both home and office to help businesses manage their workflow with greater efficiency. Our award-winning technology can empower teams to be productive in any environment.

Dynabook - More Mobile Than Ever

Dynabook laptops from Sharp offer strong features and performance for today's changing office and home environments. **All Dynabook models are meticulously designed to efficiently perform even under the most grueling workloads.** Their lightweight case and ultra-thin design make them easy to carry and a pleasure at home, in office or on the road. Dynabook Laptops utilize Intel® processors and come standard with Microsoft Windows 10 Professional.

Built-in quality, **reliability** and **durability.**

VISUAL TECHNOLOGY FOR DIVERSE BUSINESS NEEDS

Sharp offers an array of products to address visual needs for diverse businesses, including interactive touchscreen displays, professional monitors, commercial HDTVs, digital signage solutions and video wall systems.

Sharp AQUOS BOARD interactive displays provide maximum work efficiency with minimal effort.

Interactive Displays Provide a Personal Touch

Sharp has taken the LED display to a new level by combining a high sensitivity touchscreen and original user-intuitive pen software. The **Sharp AQUOS BOARD®** interactive display system is ideal for meetings, video conferencing, classroom instruction and anywhere interactive communication is key.

The Sharp AQUOS BOARD display systems feature 4K Ultra-HD resolution and the Pen-on-Paper® user experience providing revolutionary writing comfort close to using an actual pen on paper. AQUOS BOARD interactive displays are especially valuable for the architecture, design and video industries – as well as in museums and libraries – for their precise detail and superior interactivity.

The built-in wireless connectivity application allows users to wireless present their content on the AQUOS Board screen quickly and easily. A variety of operating systems are supported including Windows®, Android™, iOS®, macOS®, iPadOS®, Chrome™ OS.

The Future of the Smart Meeting Room is Here!

Imagine comfortable business meetings with better space utilization, more productive collaboration and minimal setup. It's now possible through the Windows collaboration display from Sharp!

The Windows collaboration display from Sharp is a Synappx-ready system and can help to amplify user collaboration to drive employee productivity and engagement. It is a next generation 4K Ultra HD 70" Class (69.5" diagonal) interactive display that enables better space utilization and more productive collaboration in meetings, boardrooms, training rooms, technical reviews and almost anywhere else.

As well as using Sharp's award-winning technology, together with an integrated video conference capability featuring a built-in microphone, high quality camera and IoT sensor hub, it works seamlessly with Microsoft 365 collaboration tools. Furthermore, it's all backed by the cloud to deliver outstanding ease-of-use and enables the continual analysis of meeting room conditions and usage.

Creating a comfortable environment in your meeting rooms pays real dividends in terms of helping people concentrate and improving productivity. The Windows collaboration display from Sharp has built-in sensors that can connect to the Microsoft Azure Digital Twins IoT platform, and other commercially available cloud and subscription services to produce a smarter workplace.

More productive collaboration with minimal setup.

Overwhelming Realism of an 8K Ultra-HD Display

Thanks to the 33 million pixels packed into its 7,680 x 4,320-pixel resolution panel, the award-winning 8M series 8K Ultra-HD monitors achieve screen resolution 16 times higher than full-HD. You cannot help but feel the depth and presence of the stunningly realistic on-screen images.

The 8M series displays support a wide range of color expression along with faithful color mapping. A rich color palette adds depth to the content and brings the entire screen to life. In addition, 4K Ultra-HD and full-HD content can be upscaled to simulate 8K pixel resolution. Slideshows, videos, images and text can be rendered with breathtaking detail and realism.

4K Ultra-HD Commercial TVs Capture Attention with Engaging Detail

The Sharp commercial TVs convey messages with the true-to-life precision of Ultra-HD 4K resolution. In hospitality, business, retail, or other settings, these commercial-grade displays excel at reaching specific audiences. They will be more informed, more entertained and more engaged.

With four times the pixel resolution of full-HD, they enable customers to see more subtle textures and finer details in photos and video. For business owners and managers, the displays offer a variety of B2B features to allow for ultimate control, as well as enhanced connectivity – all within a **slim bezel design**.

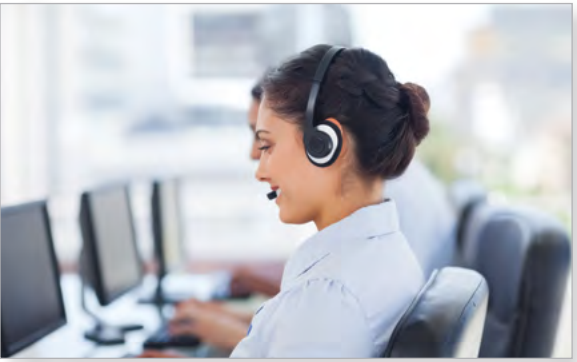
SHARP'S DEDICATION TO SALES AND CUSTOMER SUPPORT

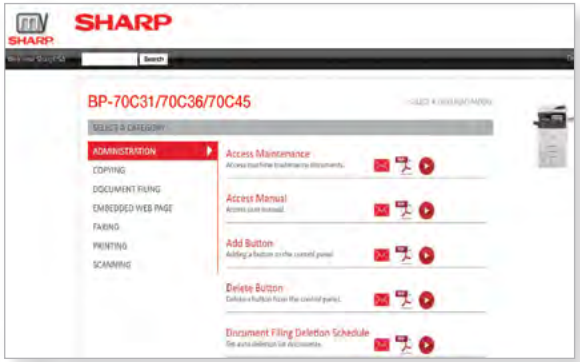
Our dedication and mission is to develop customer loyalty by exceeding customer expectations in order to help contribute to their success.

Nationwide Coverage

Your relationship with Sharp does not end after your purchase. To ensure the highest level of satisfaction and support, Sharp stands behind every product through its nationwide network of professionals that are eager to work with you and address your specific needs. With both local representation and national reach, Sharp resellers provide a very high level of service and support to customers throughout the United States.

We take pride in supporting the relationships forged by our direct sales team and local authorized dealers. These relationships help Sharp develop products that continually add value and help enhance productivity. With nationwide reach, we can support large corporate installations with offices throughout a region or spanning the country. This combination of responsive local management and nationwide support delivers an outstanding experience for customers.





My Sharp website is available 24/7 with detailed video instruction.

Online Support and Training with My Sharp

My Sharp, available 24/7, is a dedicated customized website providing how-to videos and PDF documents that demonstrate features of the customer's specific MFP devices.

With the intuitive web support, users can find the information they need for scan, copy, print, fax, administrative functionalities and supplies replacement, helping to reduce downtime and enhance productivity.

ENVIRONMENTALLY-FRIENDLY

Responsible Approach to Product Design

Most Sharp document systems utilize advanced micro-fine toner technology, which offers a lower consumption rate and produces less waste than conventional toners, resulting in longer replacement intervals. Sharp supplies are packaged using fully recyclable materials. Long-life consumable parts help minimize service intervals and down time, resulting in lower operating costs. With two different energy-saving modes, power can be reduced or shut off at set intervals. Sharp offers document systems that are **ENERGY STAR®** qualified and RoHS compliant to restrict the use of hazardous substances.

Toner Recycling Program

As part of our commitment to helping preserve the environment, Sharp offers our customers zero-waste-to-landfill recycling – for all Sharp consumables, including cartridges, bottles, toner collection containers and drum units – at no additional cost. Sharp encourages customers to recycle their used Sharp toner cartridges in bulk by providing a pre-paid Recycling Kit for their return to our facility. Visit ***www.sharpusa.com/recycle*** to learn more.

Sharp takes an environmentally responsible approach to product design.

Sharp Business Products Are EPEAT® Registered

EPEAT (Electronic Product Environmental Assessment Tool) is a third-party global rating system for greener electronics that requires ongoing independent verification of manufacturer claims. Businesses, government agencies, schools, hospitals and other institutions are using EPEAT as the environmental benchmark to help them make informed purchasing decisions. By using EPEAT standards to purchase greener electronics, you will be assuring your organization's environmental sustainability goals and help to preserve our natural resources.

CREATING THE SIMPLY SMARTER OFFICE

When it comes to the impact of technology on our businesses, change is the only constant. In fact, now more than ever, **simple-to-use, up-to-date office technology** can help you remove any barriers to doing business and create what we call the Simply Smarter Office.

The aim of the Simply Smarter Office is straightforward: **improve information sharing** through user-friendly, connected technology through accelerating communications and collaboration, **improving efficiencies and reducing cost**, digitizing documents and workflows and increasing information security.

Tools to help you deliver seamless collaboration through efficiency-driven advancements.

SEAMLESSLY CONNECT TECHNOLOGY. DRIVE COLLABORATION.

SYNAPPX™

Organizations are challenged more than ever to deliver easy access to flexible solutions that help them collaborate, engage and interact. Yet simply investing in new apps, software or supporting tools to help achieve this goal often falls short as having too many solutions creates a burden on users to learn and adopt new technology tools. **The award-winning Synappx™ solutions** help organizations deliver a consistent and intuitive user experience with collaboration technology, including new and exciting meeting solutions, to help minimize challenges for users and IT support.

Hybrid Collaboration for a Hybrid Workplace

Synappx is the engine behind the Simply Smarter Workplace providing one platform for users and IT administrators to accelerate collaboration, simplify workflows, and increase security, delivering innovative solutions that increase efficiency of office resources, user productivity and IT admin control. **With a simple tap with a mobile device or scan of the QR code**, users can start their meetings on time and let Synappx automatically initiate the web-based video conference session while seamlessly connecting to the in-room computing device or display, as well as audio and video options. With quick access to content, hybrid meetings can be more efficient and productive as Synappx can help users engage with both in-person and virtual meeting participants. Now, users can enjoy a simple and consistent experience with the Synappx applications to help cut through technology entanglements and frustrations and drive flexible, hybrid collaboration.

Synappx Go

Synappx Go improves the user work experience when connecting Sharp devices providing ease of use for users and security for IT top of mind. With features for collaboration and print functions all in one application, users benefit from a single interface that requires no cables for starting and hosting meetings and the ability to easily print, scan, and copy from MFPs. IT administrators have the capability to customize collaboration and document security while keeping a productive environment.

Synappx applications work in the following environments:

Synappx Solution	BYOD Device	Document	Collaboration				
		Print, Copy & Scan	In-Room Compute (PC)	Screen Casting	Remote Audience (Web Conference)	Ad-Hoc Meeting	Scheduled Meeting
Synappx Go for MFPs		✓ Copy & Scan included with MFP Lite	✓	-	-	✓	-
Synappx Go for Laptops		-	-	✓ ClickShare, Miracast, Google Cast	✓	✓	✓
Synappx Go for Collaboration		✓ Included with Synappx Go	✓	✓ Laptop via Web Conference	✓	✓	✓

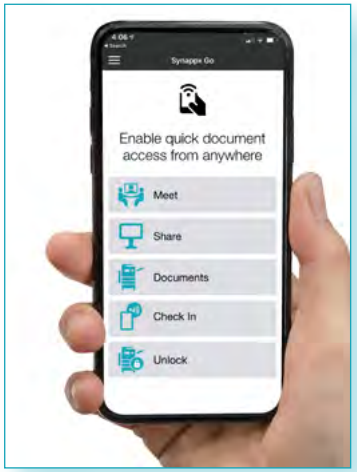
Synappx Go for Collaboration

Synappx Go for collaboration helps to bridge the gap between in-office and remote employees making hosting meetings and sharing content easier for users and IT professionals. Users can enjoy the simplicity of scan/tap to start their meetings and watch as the meeting starts and connects automatically to audio and video, instantly connecting both audiences. The intuitive app interface enables users to control the video conference and share files from their cloud storage services with all attendees, leaving no one behind. IT will have peace of mind knowing they have control over the in-room PC and access to Windows features to ensure no changes are made to the PC and no sensitive information is ever left behind.

Turn any workspace into a collaboration hub to facilitate in-person and hybrid meetings with a simple and consistent user experience.

Mobile users will benefit from the consistent and intuitive user experience that Synappx Go has to offer.

- Tap the NFC tag or scan the QR code to auto-start a scheduled web conference and automatically connect to in-room audio and video.
- Easy access to microphone, camera, and screenshare functions from the app.
- Enhance meeting productivity with quick access to files from cloud storage or the meeting invite.
- Use the trackpad to enable mouse-like use on the display for hands-free control.
- End the meeting with a simple click to disconnect the web conference session and connection to in-room audio and video.



Meet, share content, copy/print/scan, authenticate with your mobile device, and track touchpoints. All you need is the Synappx app for your hybrid workplace.

Laptop users have the comfort of their laptop with the same ease of use as the mobile experience.

- Consistent user experience with mobile and laptop.
- Type in the Synappx pairing code to launch the web conferencing system on the display and automatically connect to in-room audio and video.
- Enhance the in-room meeting experience by being in control of the display microphone, camera, screen share and audio from your laptop!

The free version of Synappx Go allows users to scan to email, scan to self, or copy right from the MFP by simply scanning a Synappx QR code. No subscription or Synappx Admin Portal setup required.

Synappx Go for MFPs

Synappx Go for MFPs simplifies users' workflows by enabling them to use their phone to copy, scan and print without having to login to the device. Users have access to their files from popular cloud storage services wherever they go within the app to easily scan and print at the device on demand. Just tap the NFC tag or scan the QR code to release jobs at a device!

- Synappx applications provide the user with a consistent experience across all devices.
- Users can copy, print and scan documents from their smartphones with touchless operation.
- For MFPs that have been locked by native authentication features or PaperCut, Synappx Go can unlock the device.
- Scan to and print from cloud storage services such as Microsoft Teams, OneDrive, Google Drive and more.
- Print release to add convenience and privacy from any configured MFPs and printers.

Content Share

Seamlessly share, edit and navigate through documents with Synappx Go. In-room team members can also tap the NFC tag or scan the QR code to retrieve and share content to collaborate. All edits are automatically saved to the original cloud location.

- With the tap of the NFC tag or scan the QR code, users can share documents and presentations from their favorite cloud storage applications right onto the display.
- Share photos, open web pages and email attachments on the meeting room display all from the comfort of your phone.
- Share content, change slides and scroll through pages all from your phone with remote operation.
- Team members can also tap the NFC tag or scan the QR code to retrieve the shared content.

Check-In Experience

Health and safety are a key consideration for organizations. The Synappx Go Check-In feature helps track employees touchpoints in the workplace.

- Tap the NFC tag to check-in to common work areas such as break and meeting rooms.
- Reports allow administrators to track high touchpoints around the office.

Remote Management and IT Control with Synappx

Designed to minimize the support load on IT administrators with integrated security, Synappx applications work with Microsoft 365 or Google Workspace.

- The IT department can utilize existing infrastructure and have full control over who and where the solutions can be used.
- Minimize user support or helpdesk calls on devices, including copiers, displays and casting solutions as users only need to familiarize themselves with how to use the Synappx apps, establishing a consistent user experience with any Synappx-ready devices.
- Users' mobile devices do not need to be on the corporate network as Synappx Go is a cloud service and works even when mobile devices are connected to the cellular network for internet access.
- With the Synappx Admin Portal, IT departments can remotely configure and manage solutions as well as remotely diagnose issues and automatically update agent apps.
- Synappx collaboration analytics are available in the Synappx Admin Portal to help organizations analyze and understand workplace trends.

Accelerate team performance with productivity wherever you go!

Synappx WorkSpaces

Analytics and Insights for a Smarter Organization

Synappx WorkSpaces is a cloud-based analytics subscription service for use with the Windows collaboration display (WCD) from Sharp that brings the power of IoT into the workplace. It allows the ability to track an organization's collaboration technologies and workspace utilization and workplace ambient conditions to help organizations create a smarter, more engaging workplace.

Synappx Workspaces services provides visual analytics to organizations without costly infrastructure investments or complex enterprise software development initiatives. Analytics created by aggregating sensor data reported by the WCD IoT sensor hub and Microsoft 365 gives organizations insight to proactively manage the collaboration workspaces and technologies for optimal efficiency and employee productivity.

Synappx WorkSpaces is a turn-key solution that helps to proactively mitigate loss of productivity with customized alerts and notifications to the changes to the ambient conditions such as temperature, humidity and even air quality in real-time. Having the data on the changes to the ambient conditions and collaboration technology utilization can enable organizations to not only manage their workplace but also the data to confirm the return on the collaborative investments for the organization.

With the data and analytics, organizations can uncover the real reasons behind common workplace complaints such as:

- "I can never find an available meeting space."
- "Meeting rooms are uncomfortable."
- "Some rooms are always unused."

Synappx-ready Systems

Accelerate Team Performance

Synappx-ready Systems, including the Windows collaboration display from Sharp, AQUOS BOARD® interactive display and MFP products, amplify key mobility, collaboration and analytics features of the Synappx applications to drive overall employee engagement and productivity.

Security is Our Number One Priority

Security is always at the forefront of Sharp's innovative technology. With Microsoft® Azure, Microsoft® 365, and G Suite™ technologies and Sharp's security best practices, Synappx applications and services are protected by a layered security system. To learn more about the Synappx platform and security, download our security white paper.

HANDS-FREE, VOICE-FIRST INTERACTIVE OFFICE

MFP Voice

Sharp has always been known for enhancing MFP productivity in the workplace by offering innovative, easy-to-use features. Sharp has done it again with the new MFP voice feature available on our latest document systems. With the Sharp MFP Voice feature, you can interact with the machine just by using the power of natural language. With simple voice commands, you can ask the Sharp document system to make copies or scan a document.

Experience hands-free, voice-first interaction at the MFP with Alexa.

MX-4071 shown with available A3 Echo Dot Attachment Kit.

EMPOWERED MOBILE MFP SOLUTIONS

Highly featured smart phones and tablets are increasingly popular communication tools in the business world. According to industry analyst IDC[2], research indicates that as organizations move toward digitization and focus on mobile options such as tablets, there are print needs that are not being addressed nor met for users. The top three hurdles for print support on mobile devices are:

- Inability to print from smartphone.
- Inability to print from tablet.
- Inability to print from websites and/or portals.

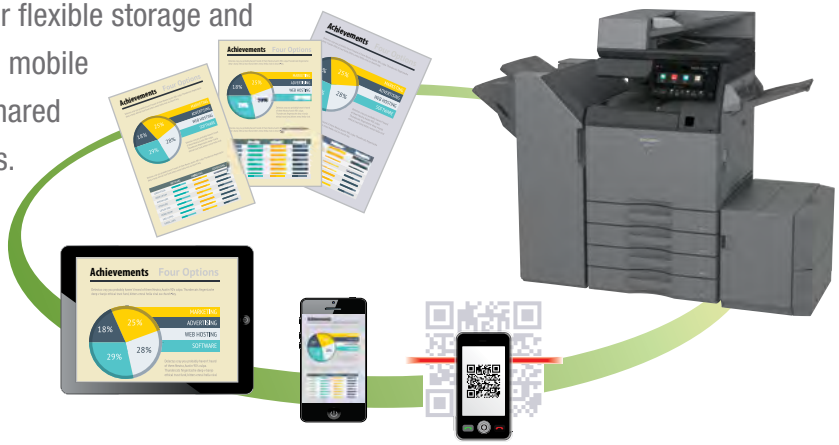
As mobile device adoption increases in organizations, print and scan support should meet evolving user needs. As users embrace their mobile devices for work, print and scan support needs to adapt to the output of digital content from mobile platforms.

Enabling the mobile workforce to work from virtually anywhere, on any device.

Mobile Printing and Scanning for Your Workplace

Sharp understands the need to support an extended workplace that includes mobile devices by providing seamless productivity for organizations. Sharp delivers a comprehensive portfolio of solutions to support organizations' mobile printing and scanning needs.

- **Sharpdesk Mobile** offers a convenient touchless option for iOS® and Google Android users to easily print documents from their smartphones or tablets to a Sharp MFP. Users can also scan hardcopy documents from a Sharp MFP directly to their mobile devices for flexible storage and sharing. Selects models support instant pairing with mobile devices via QR code or NFC. Scanned files can be shared with other applications or sent as email attachments. Sharpdesk Mobile is available at no cost from the Windows Store, Apple App Store®, and Google Play™ store for their respective users.



Mobile Printing and Scanning for Your Workplace *(continued)*

Stay up-to-date and control your data and resources with Sharp's portfolio of solutions.

- **Sharp Print Service Plug-in** is a native printing plug-in supporting Android 4.4 and above with framework that consists of multiple print service plug-ins to enable printing from an Android platform mobile device. The Sharp Print Service Plug-in allows you to print a variety of files with enhanced print settings, directly from Android platform devices to Sharp MFPs and printers. In addition, the Sharp Print Service Plug-in now includes support to scan a document and send it from the MFP to an Android device.

- **AirPrint™** permits printing of Web pages, photos, email and more with AirPrint-enabled Sharp devices. There is no set up required – quickly print what you want, where you want it! AirPrint is Apple's printing technology that provides instant printing capabilities for iOS and OS X devices. Select Sharp MFPs and printers have built-in AirPrint technology enabling users to print from their iPad®, iPhone® and iPod® touch mobile digital devices or Mac® computers without requiring a print driver. Additionally, the Advanced and Essential series workgroup document systems are now AirPrint-certified to support scan and fax functionalities from OS X devices.

Optimized Printing in the Technology-driven Workplace

- **Adobe® Embedded Print Engine** (AEPE) is a next-generation RIP technology from Adobe to natively process PDF and PostScript files on the MFP for direct printing. Available on the Sharp Advanced and Essentials Series workgroup MFPs, AEPE is an optimal solution for the technology-driven workplace to facilitate faster, driverless direct printing often required for mobile and cloud environments. AEPE's enhanced PDF parsing repairs PDFs, allowing the RIP to generate output that is closest to the market-proven PDF gold standard, Adobe Acrobat® Reader® DC.

Wireless LAN Connectivity

Create a selective and secure wireless hotspot for printing and scanning.

Transform your Sharp MFP into a wireless-enabled imaging product. Select Sharp MFPs and printers are equipped with wireless LAN capability to help your organization maximize productivity among mobile users. In alignment with your organization's security and wireless network policies, the following modes are available on select Sharp MFPs and printers:

- **Infrastructure Mode**

  Sharp MFPs installed on the corporate wireless network can be placed wherever a wireless router is within range. Eliminating physical cables and hubs, Infrastructure Mode increases the options to strategically locate devices and improve accessibility.

- **Access Point Mode**

  This mode is ideal for organizations that adhere to a BYOD (Bring Your Own Device) policy. Coexisting with a wired network, this mode will create an instant point-to-point wireless network connecting mobile devices to printing resources. Segregated from the corporate network, IT managers can prevent unwanted access to corporate resources while allowing mobile users to access basic printing and scanning. This enables convenient wireless usage without compromising the organization's security policy.

USB Direct Printing and Scanning

Most Sharp MFPs allow users to scan to and print from a USB flash drive. This feature helps make it convenient for users to access the device by minimizing extra steps. For security-conscious organizations, this feature can be disabled to maintain compliance with the security policy and avoid misuse of the MFP.

EXTENSIVE INTEROPERABILITY

Achieve MFP compatibility across complex networks.

Sharp understands that IT administrators must ensure MFP compatibility across complex networks of computers, devices, applications and platforms. Sharp MFPs are compatible across a broad spectrum of environments, further helping to maximize your investment in technology. From defining output settings to specifying finishing options, users are able to reliably produce professional quality printed materials.

Microsoft Windows Support

Sharp drivers are compatible with the latest Microsoft Windows operating systems. Most Sharp drivers have passed Microsoft's Windows Hardware Quality Labs (WHQL) testing for maximum compatibility and reliability. To support growing Microsoft 365 adoption, users can intuitively access their documents for printing and scanning right from Sharp MFP operation panels.

Microsoft Universal Print

Sharp MFPs and printers also support Microsoft Universal Print Service. Universal Print is a modern print solution that organizations can use to manage their print infrastructure through cloud services from Microsoft. This Microsoft 365 subscription-based service delivers simple, rich, and secure printing experiences while reducing time and effort for IT administrators. Universal Print runs on Microsoft Azure and is fully integrated with Azure Active Directory, providing secure and efficient printing. Universal Print is supported natively on most Sharp models, while others are supported with a connector from Microsoft.

Apple® OS X® and iOS Support

Apple not only maintains a strong presence in marketing, advertising and design departments, but Mac adoption is also growing across the enterprise. To ensure productivity of Mac users, most Sharp MFPs are compatible with the latest Mac OS X operating systems through OS X print drivers. Sharp MFPs and printers also support effortless AirPrint mobile printing via popular iOS devices.

Google Support

Google is rapidly emerging in business environments of all sizes. Sharp MFPs help Google users through an optimized document printing and scanning experience by supporting Android devices and apps including Google Drive™.

Maintain continuity while producing consistent results.

Citrix®

The Citrix Ready® program ensures compatibility with Citrix products. As a member of this joint solution compatibility and verification testing program, Sharp tests drivers to ensure consistent printing from Sharp MFPs and printers in Citrix XenApp® environments.

SAP® Member
Printer Vendor Program

Device Types

As a gold-level member of the SAP® Printer Vendor Program, Sharp ensures compatibility of MFPs and printers with SAP solutions through updated device types. Device types are files that store printer information so users can seamlessly access printer features such as paper tray selections, orientation and duplex options directory from SAP.

Supported Page Description Languages

All network capable Sharp MFPs support the PCL® page description language. Adobe® PostScript® 3™ support is available for environments that require these industry standards.

Linux® and UNIX® Support

Computers running on Linux and UNIX operating systems can also access the functionality of Sharp MFPs. To access these features, simply install the correct PostScript Printer Description (PPD) or PCL support file to deliver optimized printing.

INNOVATIVE WORKFLOW SOLUTIONS FOR HEALTHCARE

Healthcare EHR/EMR Application Compatibility

Within the healthcare industry, there are a few solution providers that are setting the standard for Electronic Health/Medical Records (EHR/EMR). Each EHR/EMR system provider has their own unique set of requirements and/or certifications for any device to be utilized with their system. Certifications are an objective, measurable way to mitigate the risks of implementing new technology into a specialized environment. Customers can seamlessly integrate their networked Sharp printers and MFPs with leading solutions such as Cerner Millennium and with confidence.

	Cerner Millennium®	MEDITECH® Magic OS*	EPIC®**
MONO - A3			
BP-50M26/50M31/50M36/50M45	✓	✓	✓
BP-50M55/50M65	✓	✓	✓
BP-70M31/70M36/70M45	✓	✓	✓
BP-70M55/70M65	✓	✓	✓
BP-70M75/70M90 ***	✓	✓	✓
MX-M905	✓	✓	✓
MX-M1055/M1205	✓	✓	✓
COLOR - A3			
MX-2630N	✓	✓	✓
MX-2651/3051/3551/4051/5051/6051	✓	✓	✓
BP-50C26/50C31/50C36/50C45	✓	✓	✓
MX-3071/3571/4071/5071/6071	✓	✓	✓
BP-50C55/50C65	✓	✓	✓
BP-70C31/70C36/70C45	✓	✓	✓
BP-70C55/70C65	✓	✓	✓
MX-7081/8081	✓	✓	✓
MONO - A4			
MX-B376W/B476W	✓	✓	✓
MX-B427W	✓	✓	✓
MX-B427PW	✓	✓	✓
MX-B467P	✓	✓	✓
MX-B467F	✓	✓	✓
MX-B557P/B707P	✓	✓	✓
MX-B557F	✓	✓	✓
COLOR - A4			
MX-C303W/C304W	✓	✓	✓
MX-C357F	✓	✓	✓
MX-C407F/C507F	✓	✓	✓
MX-C407P	✓	✓	✓
MX-C507P	✓	✓	✓
MX-C607P	-	✓	✓

* Sharp MFPs that support PCL5. PCL 5C or PCL 5e are compatible with MEDITECH Magic OS.
** Each Epic customer will have an employee trained as the Epic Technical Advisor. The Technical Advisor will approve print output device placements.
*** Validation in progress

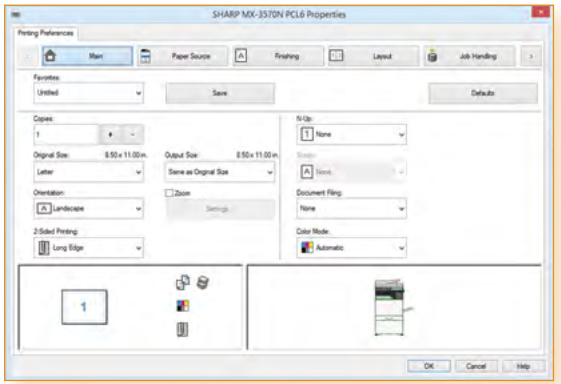
EFFORTLESS PRINTING

Manage all phases of printing with ease of use.

Printing is one of the most common everyday tasks at any type of organization. The challenge for IT managers is to deliver an efficient and flexible yet structured printing environment. Sharp MFPs help ensure all phases of printing and document management are easy, for both IT managers and end-users.

Sharp Print Driver

Sharp print drivers are seamlessly integrated with Microsoft Windows OS and their popular applications such as Microsoft Office for a seamless printing experience. Specific features are available through a user friendly interface that helps meet each user's unique output requirements. Most Sharp drivers are Microsoft WHQL certified to deliver the best printing results.



Sharp PCL Windows Driver.

Key features include, but are not limited to:

- Simplified print settings and **versatile finishing** selections including **stapleless finishing**[3] to minimize user support.
- **Print retention** to reduce waste and protect confidential information via secured release with a PIN code or via user authentication.
- **Image quality** options to meet each user's various output needs.
- Print to **document filing** folders for convenient document retention and retrieval.
- **User authentication** to ensure only authorized users can access the device. When the MFP/printer is registered to Active Directory, it establishes secure Single Sign-On (SSO) via Kerberos token.
- **Watermarks** to help identify sensitive documents.
- **Print and send** by sending the document to registered destinations on the device when document is printed.
- **Active Directory Group Policy** to centrally control and manage printer usage.

Sharp Universal Driver (Sharp UD)

The Sharp Universal Driver is designed to facilitate easy printer and print driver management for IT managers. With one driver providing a consistent printing experience for all end-users in the organization, the Sharp UD helps IT managers increase efficiency by simplifying support, management, installation and setup.

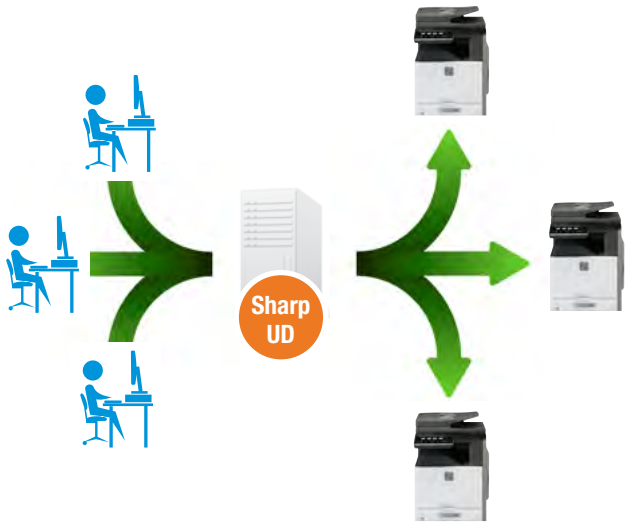
High-performance features for busy workgroups.

CITRIX ready

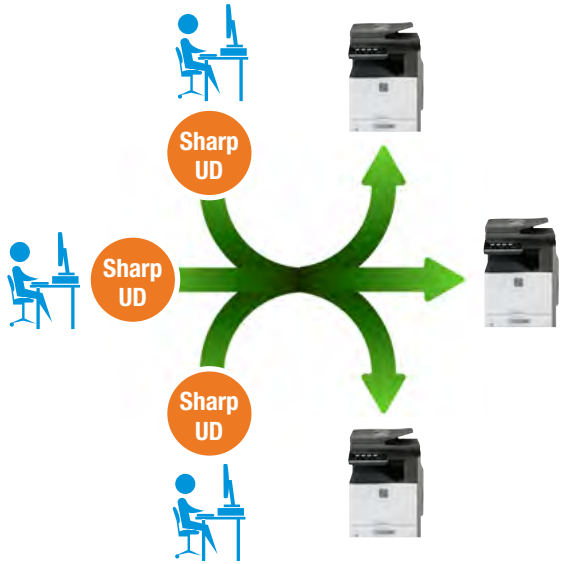
Key features include, but are not limited to:

- **Basic Mode** and **Enhanced Mode** for your optimal printer driver deployment and management.
- Quick **device discovery** to find Sharp MFPs on the network.
- Versatile **finishing support** to maintain productivity with convenience.
- **Printer list** feature to always keep your favorite printers accessible.
- Verified and trusted **Citrix Ready** print driver.
- **Client-server** and **peer-to-peer print environment** for IT managers to provide flexible networking options.

Client-Server: Centrally managed by IT. Simplified printer management with one driver.



Peer to Peer: Improved user convenience with one driver for many printers.



Note: This is not Microsoft Universal Print (see page 29)

Print Productivity and Security

Organizations require constant improvement in productivity – providing users access to mission critical documents whenever and wherever can help meet this need. At the same time, IT departments face increased demand for print security and compliance. Sharp helps enable organizations and IT departments to overcome these challenges through user authentication security as well as convenient pull printing solutions.

• Print Productivity for Cloud and Mobile

Powered by Adobe Embedded Print Engine, Sharp is one of the first to adopt Adobe's newest offerings to improve print experience from cloud and mobile. It greatly improves speed and accuracy of PDF direct printing, which is often required in the technology-driven workplace.

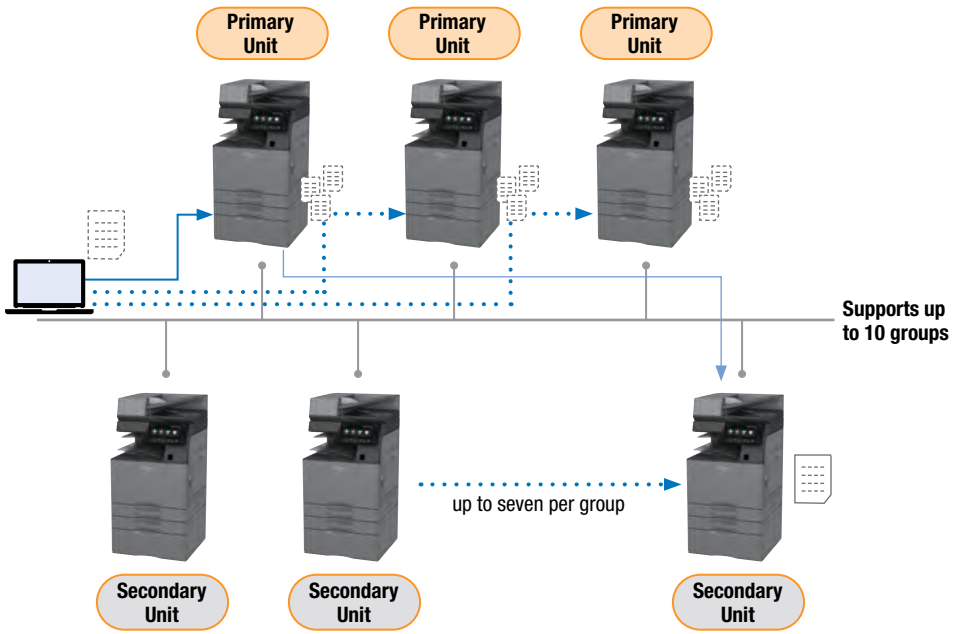
With Serverless Print Release technology, securely print a job and release it from any of five select MFPs.

• Print Retention and User Authentication

With most Sharp MFPs, users can send print jobs and store them on the MFP's hard disk drive which can then be securely released using a PIN number or via user authentication through a simple UI. When user authentication is enabled, all print jobs are authenticated and only validated print jobs are accepted and released from the device, helping organizations to not only meet their security policies and industry compliance, but also help reduce waste from orphaned jobs left at the printer.

• Serverless Print Release

Select Sharp MFPs come standard with Serverless Print Release technology. With this function, IT administrators can designate up to three primary MFPs that can work as print servers, enabling users to securely print a job and release it on up to seven supported MFPs in a group. Up to ten groups of MFPs can be configured on most models. See reference section for supported models.



Output Management for Organizations of All Sizes

Sharp offers print management solutions for all types of organizations, regardless of size, to help manage and allocate print costs. In addition to built-in billing code and print release features, Sharp MFPs and printers are compatible with various output management applications such as Kayleigh job accounting software, which offer simplified access control, print release and cost recovery features.

Flexible printing solutions help speed up your office productivity.

- **Kayleigh Job Accounting Software**

  As organizations grow, managing the cost of print, scan, copy and fax activities becomes more important and allow companies to streamline budget allocation and cost recovery. Kayleigh job accounting software is an option for organizations looking to incorporate the benefits of authentication along with authorization to account for MFP usage by their employees. Kayleigh software suite offers a solution ideal for small to medium business environments with Sharp MFPs and select non-Sharp printers to implement rules-based printing policy to minimize waste.

Kayleigh key benefits:

- **Easy authentication** options include network username and password, ID card or PIN number.
- **Track all activities**. Manage and monitor print/copy/scan activities on Sharp MFPs and select non-Sharp printers to track spending and to optimize resources.
- **Manage MFP function and feature access** by user, department and set simple rules-based print policies to the organization to minimize waste.
- **Cost recovery** by billing clients or projects back using the client matter option.
- **Secure print/copy/scan activities** and allow users flexibility by enabling print release with optional settings from any network-connected MFP.

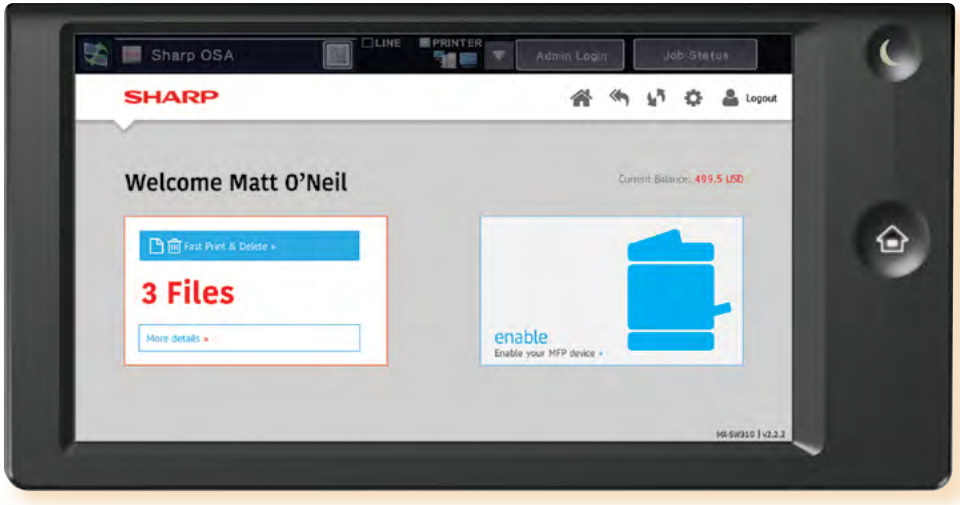
Intelligent document workflow solutions help you work more efficiently.

Output Management for Organizations of All Sizes *(continued)*

Kayleigh Job Accounting Solution Components

Kayleigh job accounting solution comprises three software feature options:

- **Job Accounting: MX-SW310 –** Tracks print and scan activities within the organization. Manage access to specific MFPs and set usage limits by users, department or groups.
- **Pull Printing Option: MX-SW311 –** Allows the job to be stored in a secure print queue rather than printed immediately. The job can be printed on demand at any Sharp MFP on the network by minimizing waste so you can print what you need, when you need it.
- **Client Billing Option: MX-SW312 –** Makes it easy to bill back clients, cost centers and projects and download reports.



Kayleigh on the MFP Panel.

- **Sharp Partner Program Member Applications**

Sharp and the Sharp Partner Program community offer a broad selection of tightly integrated print release, cost accounting and access control software. Whether your needs are simple or complex, **Sharp Partner Program Members** can provide the right products to help meet your print security and productivity needs. For more information on the products available from the program members, please visit *www.sharp-partners.com/validated.*

SIMPLIFIED CONTENT MANAGEMENT

Multifunction products are evolving to efficiently handle several complex tasks in one unit—copy, print, scan, fax and more—helping organizations reduce costs and increase productivity. Factor in Sharp's customizable and intuitive user interface with these robust document management capabilities, and you have a winning combination. Furthermore, Sharp offers a variety of software applications that help to enhance the integrity of hard copy to electronic document processing.

Integrated and Secure Document Scanning and Sending

With Sharp's powerful ImageSend™ technology, you get one-touch access to features that allow users to efficiently communicate, collaborate and manage documents. It also gives users the option to send scanned documents to the desktop, network folders (SMB), FTP folders, USB, emails, fax and more. Select models also support convenient and secure destinations including "Scan to Home" and "Scan to My Address" to maximize productivity while reducing IT administration. In addition, select models support Distributed File System (DFS) to help ensure information security and integrity, minimizing data redundancy.

Send scanned documents effortlessly with ImageSend technology from Sharp.

Unified Electronic and Physical Documents

Select Sharp MFPs enable users to convert printed documents into different types of digital formats. This optical character recognition (OCR) capability adds extensibility to the document based information. By converting the physical document into a Microsoft Office file or text formats, the document can be instantly accessible for editing and searching right after it is scanned from a Sharp MFP. For printing, select Sharp MFPs allow users to directly print Microsoft Office and text files without requiring a print driver. This can tremendously improve productivity of mobile users, allowing them to print various types of files from their mobile devices, USB memory devices, or Sharp OSA-developed integrations.

Integrated Scan to Email

Scan to email is one of the most popular MFP functions. In addition to the traditional scan to email feature, select Sharp MFPs offer an integrated scanning experience with the Email Connect feature. Supported email services include:

- Exchange Server On-premises.
- Exchange Online/Microsoft 365.
- Gmail™ Web Mail Service.

The **Email Connect** feature brings both security and convenience to organizations:

- Scan and send email from logged in users.
- Access to global and personal contact lists.
- Sent history for Outlook or Gmail clients.
- Applies Exchange server rules and security (e.g. size limit, destination restrictions).
- Single sign-on with OAuth or Kerberos token.
- Synappx Go offers contactless scan to email and scan to cloud storage such as Microsoft Teams.

Streamline Document Workflows with AIP Core

AIP Core is a suite of connectors available through Sharp authorized dealers enrolled in the Authorized Integrator Program (AIP). AIP Core connectors are designed to support organizations looking to simplify and streamline their business workflows to provide a secure, integrated document scanning and printing experience. Centrally managed to simplify IT administrator tasks, the AIP Core suite of connectors include:

Blackboard Learn Connector – The Sharp integration with Blackboard's flagship learning management system, Blackboard Learn, will enable students to print and scan assignments from any connected Sharp MFP directly to the students' Blackboard Learn courses. This streamlined process can ultimately help increase the timeliness and flexibility of student assignment submissions. Institutions can optimize their technology investment by leveraging the Blackboard Learn connector as part of the AIP Core suite to help increase classroom engagement and experience the integrated solutions from Sharp and Blackboard.

Email Connector – Supporting both on-premises Exchange® Server or Exchange Online® cloud environments, the Email Connector for Sharp OSA-enabled MFPs provides authenticated users with access to all the features normally associated with Microsoft Outlook. Scan to email messages take on the identity of the authenticated user who sent it, not unknown sources. Scanned emails appear in the senders sent messages folder. Added enhancements for the Email Connector offer a default setting option for users to copy themselves as well as the intended recipient as well as support for SMTP webmail services.

Network Connector – With the Network Connector, your Sharp MFP now becomes a convenient way to scan and save routine hardcopy documents to any network share. Seamless integration to Microsoft Active Directory networks provides authenticated users with access to their home folder as well as shared network folders right from the Sharp OSA-enabled MFP's control panel.

Dropbox Connector – The Dropbox connector helps meet the increased demand for the popular cloud storage services. This connector allows users to scan documents to and print from their Dropbox account directly from the Sharp MFP. Seamless integration with Dropbox cloud services brings additional convenience and productivity for organizations that have adopted cloud-enabled solutions.

Google Drive Connector – The Google Drive connector helps to support organizations that have adopted Google Drive cloud storage services. This connector allows users to scan documents to and print from their Google Drive account directly from the Sharp MFP. Seamless support for Google Drive brings additional convenience and flexibility for organizations leveraging Google Drive cloud services.

Fax Connector – The Fax connector allows organizations to provide support for users to send scanned documents via a fax gateway, including cloud-based fax gateways. This connector supports the specific needs of customers in key industries such as healthcare, education, and local government with convenience.

Solarity Connector – The Solarity connector is designed to complement and help streamline healthcare industry specific business processes. This connector offers organizations that adopted the patented technology platform from EDCO to allow healthcare providers, hospitals, and clinics to automate inefficient indexing processes and helps to audit electronic health records (EHR) to minimize errors, missing and/or misfiled records. With the Solarity connector, healthcare organizations can scan documents from Sharp MFP and audit the scanned file before routing the document to a content management solution such as Hyland's OnBase application.

OnBase® Connector – With the OnBase connector, Sharp MFPs provide seamless integration with OnBase enterprise content management software by Hyland Software®. This enables users to upload scanned physical documents into OnBase as well as enter keywords right from the MFP. The OnBase connector will help establish critical industry-specific business processes in the enterprise, healthcare, education and more.

OneDrive® Connector – The OneDrive connector helps meet the increased demand for and adoption of Microsoft cloud services. The OneDrive Connector allows users to scan documents to and print from their Microsoft OneDrive for business account directly from the Sharp MFP. Seamless integration with Microsoft OneDrive brings additional convenience and productivity for cloud-enabled workplaces.

SharePoint® Connector – With the SharePoint Connector, Sharp MFPs provide seamless integration with the Microsoft SharePoint server, enabling users to upload scans of hardcopy documents and enter keywords right from the MFP. Users can also browse SharePoint document libraries at the MFP and select where to store scanned documents.

EFFICIENT CLOUD COMPUTING

Why Cloud?

With the growing adoption of mobile devices in business, having access to documents virtually anywhere from any device becomes increasingly important. Software as a Service (SaaS) solutions help maximize productivity and provide the ability to share and collaborate with team members regardless of location. Businesses are turning to the cloud so projects can remain on schedule.

Essentially cloud computing is using shared IT resources "on-demand" over the Internet. It is very cost effective for businesses because it is highly scalable; you pay for what you need. Additionally, there is lower burden on IT resources. No one has to install individual desktop clients, or purchase and maintain servers.

Connecting to Cloud Services*

Through the **Cloud Connect**[4] feature on most Sharp multifunction products, organizations can seamlessly integrate their paper-based document workflows with popular cloud services. Without requiring external applications or additional installations, these MFPs offer you a built-in ability to connect to the cloud. With simple configuration, your IT team can extend cloud services to efficiently manage paper-based documents. In addition, employees can conveniently access and print their cloud-stored documents directly from the user friendly MFP operation panel. For optimal user experience, single sign-on is supported. Users can login once and conveniently scan documents or access cloud-stored documents directly from the Sharp MFP.

Currently supported cloud services include **Box™, Dropbox, Gmail™, Google Drive, Microsoft Teams, OneDrive for Business, SharePoint® Online and Outlook/Microsoft 365**.

* The Sharp Application Portal is available to support the cloud connectors as independent apps requiring no firmware updates.
Note: The Dropbox connector is only available with the latest Sharp Essentials and Advanced Series 2 MFP models forward.
The Sharp Essentials Series 2 MFP models require the MX-AMX2L/BP-AM10L option for the Dropbox Connector.

Connecting to Third-Party Cloud Services *(continued)*

Cloud Connect feature includes:

- Scan physical documents into popular supported cloud services.
- Print documents on demand from these popular cloud services at the MFP operation panel.
- Supported file formats include **Microsoft Office**[4], **PDF**, **searchable PDF**[4] and more.
- Convenient **single sign-on** to both the MFP and supported third party cloud services.

Built-in ability to connect to the cloud.

Sharp Application Portal

The Sharp Application Portal enables IT administrators and service support teams to easily update current applications including SharePoint® Online, OneDrive™ for Business, Google Drive™, Gmail and Exchange/Microsoft 365 directly from the touchscreen panel of the MFP. You can also add new applications including MFP Voice, Box and Dropbox. The Application Portal dynamic menu key conveniently displays a notification when a new application or application update is available. These important updates help maintain the operational security and stability of the applications installed on the MFP.

Key Benefits of the Application Portal:

- Download applications right from the MFP touchscreen.
- Easily update current applications.
- Easily add new applications.
- Notifications for new apps and app updates.
- Easy maintenance of app security and stability.

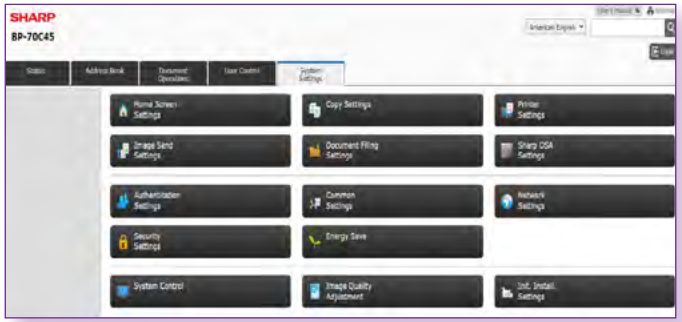
OPTIMUM DEVICE UPTIME

Manage your device, safeguard your data and protect your business.

In today's business world, an immense amount of business information is still communicated on paper. This information must be printed, copied and scanned as a part of the document workflow process. As a result, uninterrupted uptime of MFPs and printers is important to keep up with the speed of business communications. The Sharp device management suite delivers unparalleled control over the administration of Sharp MFPs through intelligent tools. MFPs and printers in your network are effortlessly managed and monitored to maximize uptime and ensure the continuous flow of important business communications.

Sharp MFP Web User Interface

The award-winning Sharp MFP Web user interface (aka "Web Page") is an embedded device configuration site that makes it easy for users and IT managers to administer the MFP through a standard web browser. Once authenticated, users can change their profiles and document filing folder settings, as well as maintain their one-touch address keys to quickly distribute scanned documents. From anywhere on the network, IT managers can log in and access the device's status, system, cloud connect, security and network settings, as well as maintain user accounts, specify diagnostic email alerts, clone settings and more. Administrator access can be protected via complex password.



Sharp MFP Home Page

Sharp Remote Front Panel

Sharp Remote Front Panel is a powerful tool that enables users and support staff to remotely view the MFP's operation panel and control its features and functions from anywhere on the network. IT managers can see the same exact screen that the end user is viewing, allowing them to quickly understand issues and take the appropriate actions to solve them. Since IT managers can control the device remotely, this capability helps eliminate a costly visit to provide support, thereby reducing users' wait time.

Sharp Remote Front Panel

Sharp Remote Device Manager (SRDM)

Expedite projects with remote front panel access from anywhere on the network.

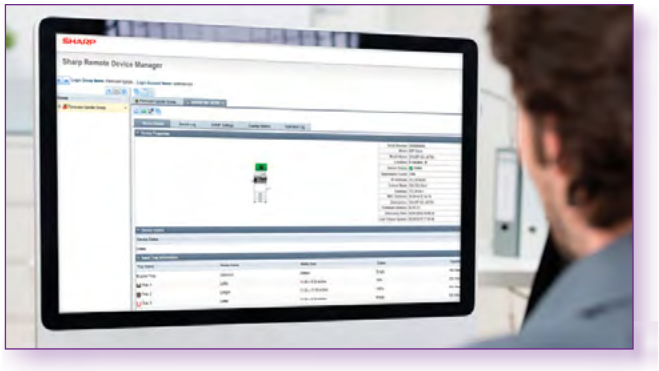
SRDM assists IT administrators who need to remotely manage and configure Sharp devices on their networks. For MFPs and printers, SRDM obtains valuable information such as paper tray details, toner levels, copy/print/fax output counts and scan/fax counts. SRDM allows IT administrators to expedite troubleshooting and centrally monitor and manage an organization's MFPs and printers from the SRDM web console. In addition, SRDM provides greater control in device security and energy consumption to help ensure corporate resources are protected. Now SRDM allows IT administrators to remotely manage and monitor select Sharp display products (SRDM V2.11 and later).

Key Features (MFPs and Printers)

- Manual or automated device discovery.
- Remote status and consumables monitoring.
- Scheduled meter count reporting.
- Remote Front Panel access for quick user assistance.
- Remote security, network and system configuration.
- Security policy management including force reset, alerts and SIEM integration.
- On-demand and scheduled power management to minimize energy consumption.
- Device storage data backup.
- Device cloning for faster device setup.
- Email notification to IT administrators or IT service ticketing system.
- Remote firmware updates to minimize deployment time.
- Remote service delivery for optimized device uptime.

Key Features (Display Products)

- Display device registration.
- Access to device web pages.
- Scheduled and remote power management.
- Scheduled and remote input management.
- Remote device status monitoring such as power, input, run-time hour, and temperature.
- Additional device information, such as serial number.



Sharp Remote Device Manager

Sharp Printer Status Monitor

The Sharp Printer Status Monitor is an easy-to-use utility that provides users with real-time information from each MFP directly on their desktop. Prior to sending a job, users can review the device's status, paper supply and toner levels. Information on the progress and completion of each user's print job, as well as preventive maintenance warnings also help to increase device uptime.

Monitoring tools enable real-time alerts and remote diagnostics to help optimize device uptime.

Remote Email Diagnostics

Putting timely and relevant information into the hands of key operators, IT managers and Sharp-authorized service providers is a breeze with Sharp Remote Email Diagnostics. IT managers can easily configure event-driven or scheduled alerts such as low consumable levels, maintenance reminders or click counts and specify the list of recipients for each. This helps bring attention where it is needed, when it is needed, for increased device availability and reduced costs (R.E.D).

MICAS℠

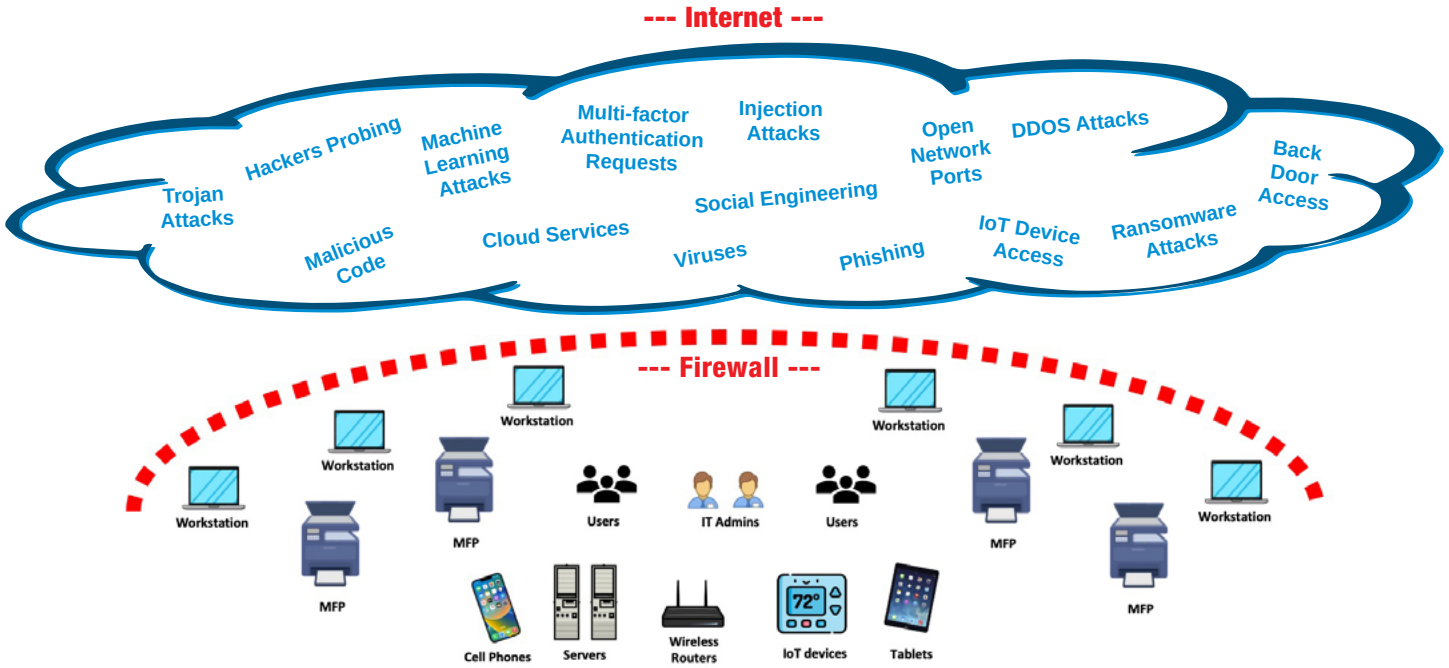
MICAS is a cloud-based device management application that uses the Sharp Remote Email Diagnostics and SNMP to collect device data and alerts. Sharp-authorized dealers can use the MICAS service to help monitor and track the status of your devices, making device management hands-free. This unique service tool helps generate automated meter data, real-time service alerts and advanced device monitoring tools. Service providers may offer remote service capabilities and OEM device support via the MICAS Agent, a locally-installed software at your office. Whether your company is large or small, local or remote, the MICAS service will help keep your devices up and running.

MICAS

MICAS Agent Screen

SECURITY FOR TODAY'S COMPLEX ENVIRONMENTS

In the early days of the Internet before MFPs were the communication hub of the office, businesses had few endpoint devices to worry about. Most users didn't even have access to the Internet. Today, businesses have many endpoint devices, and most users have access to the Internet, which is flooded with malicious intruders looking for ways to infiltrate a corporate network. Sharp addresses these concerns and others by providing a multi-layered security suite to help protect your data and personal information.



Physical Security Threats

MFPs are typically located in common where they are accessible by multiple people. If walk-up access is not protected with strong authentication and unique passwords, unauthorized users can potentially gain network access or steal confidential information. Even documents left in the exit tray can be taken without authorization.

STRONG MULTI-LAYERED SECURITY HELPS PROTECT YOUR BUSINESS

A Leader in MFP Security

Sharp was the first to address security in digital imaging and received the first Common Criteria validation for an MFP in 2001. Since then, Sharp has been regarded as one of the industry's MFP and printer security innovators. Businesses and government agencies worldwide have come to depend on this level of assurance, which Sharp pioneered and for which it continues to set the benchmark. Security features shown below are standard on most Sharp models ▶.

Single Sign-on to Network Resources
Helps secure user access to cloud services

Real-time Intrusion Detection
Blocks abnormal network connection requests that could be malicious

Restricts Access to Features
Built-in Authority Groups can restrict copy/print/scan/fax features

Data in Transit is Secure
TLS 1.3 encryption protects privacy and protects against data tampering

Restricts Network Access to the MFP
IP/MAC address filtering and port management features

Whitelisting Protects MFP File System
Application Whitelisting only allows known applications and firmware to run on the machine

Erases all Data at End-of-Lease
End-of-Lease feature ensures all data is overwritten on SSD and latent memory areas of the MFP at trade in

Data at Rest is Secure
256-bit AES data encryption protects stored data

Active Directory Integration
Can join network domain as a trusted device

System Startup Files are Secure
BIOS Integrity Check and Firmware Attack Prevention at startup ensures authenticity of system files

Sends Real-time Events to SIEM System
Supports standard SYSLOG protocol enabling alerts and events to be integrated with customer's SIEM server

Trusted Platform Module (TPM 2.0)
Can protect stored data on the device by securing access to encryption key data

THE SHARP SECURITY SUITE

Sharp helps IT administrators and organizations achieve optimal document security through the Sharp Security Suite. The Sharp Security Suite is effective at helping prevent unauthorized access to your network and your most confidential information with safeguards that have been designed from the ground-up. Sharp MFPs utilize a multi-layered approach for protection – providing better control over the users, devices, ports, protocols and applications that access Sharp MFPs on your network.

Sharp Security Suite includes:

- Standard multi-layered security features.
- Virus Detection Kit Powered by Bitdefender.
- Data Security Kit.
- Sharp print drivers and security software.
- Sharp OSA integrated security applications.

Data and Information Security

Sharp standard MFP security features coupled with the optional Data Security Kit (DSK) available on most models protect and control the major MFP systems and subsystems (print, copy, scan, fax jobs, network settings, memory components and local user interface). The Sharp data encryption method uses the Advanced Encryption Standard (AES) algorithm 256-bit[5] on all data before it is written to RAM and the hard disk drive. Most models can provide up to 10 times data overwriting routines[5] to minimize information leakage. Select Sharp MFPs support DoD 5220.22-M data overwrite for optimal data security. At trade-in, Sharp MFPs include a standard End-of-Lease feature, that when implemented, ensures that all confidential information and personal data is overwritten before the device leaves the customer's facility.

SHARP STANDARD FEATURES		WITH OPTIONAL DATA SECURITY KIT (DSK)	
Level 1 **Standard Security Features**	**Level 2** **Standard Security Features**	**Level 3** **DSK Standard Security Mode**	**Level 4** **DSK CC Security Mode**
Includes User Authentication, Active Directory Integration, IP/MAC Address Filtering, Port Management, Audit Logs, BIOS Integrity Check, Firmware Attack Prevention, Application Whitelisting, Intrusion Detection, and others. *(Some features must be enabled)*	Includes Level 1 Standard Security Features plus Data Encryption, Data Overwrite Protection and Trusted platform Module (TPM) protection. *(features must be enabled)*	Includes Level 1 and 2 Standard Security Features plus manual data overwrite capability, disabling document filing and list printing as well as other optional feature restrictions.	Includes Level 3 DSK Standard Security Mode features, plus meets requirements for Common Criteria HCD Protection Profile v1.0 compliance. Incorporates specific forced security settings and feature restrictions. ID card readers not allowed.
Additional Security Layers (optional): Virus Detection Kit powered by Bitdefender Sharp Partner Program Member products and applications.	Additional Security Layers (optional): Virus Detection Kit powered by Bitdefender Sharp Partner Program Member products and applications.	Additional Security Layers (optional): Virus Detection Kit powered by Bitdefender Sharp Partner Program Member products and applications.	Additional Security Layers (optional): Virus Detection Kit powered by Bitdefender Sharp Partner Program Member products and applications.

Access Control Security

To limit unwanted access to each device, most Sharp MFPs can utilize account codes, user/group profiles, passwords, or external user accounts contained in the local device address book or global user directory. All user credentials are transferred using a proven combination of Kerberos, Transport Layer Security (TLS) or AES 256-bit encryption to help avoid interception. In addition, select Sharp MFPs can be registered as a computer with the Microsoft Active Directory® domain, providing strong Kerberos token-based authentication and authorization. IT administrators can securely and conveniently manage devices and access to "scan-to folders" and "scan-to emails" with an advanced level of control.

Network Security

Sharp MFPs feature an intelligent network interface that can limit access to specific computers on a network by IP or MAC address, and selectively enable or disable any protocol or service port on each device. All communications to and from the MFP can utilize TLS for secure transmission over the network, and most devices also support SMB, IPv6, IPSec, 802.1X and SNMPv3.

Fax Security

The architecture of Sharp MFPs provides a logical separation between the fax telephone line and LAN. It is, therefore, virtually impossible for attackers to gain access to the internal systems of the MFP or the local network from the MFP fax board. Additional security features are incorporated such as disabling broadcasting, allowing and rejecting reception from specific numbers, user authentication and more.

Document and Email Security

Protection for sensitive documents can be assured through Sharp-encrypted Adobe PDF files for scanning and printing, or access control and encryption using TLS protocols for scanning, printing, email and setup. In addition, S/MIME email encryption can be enabled for secure email communications.

For more integrated email security, select Sharp MFPs offer the Email Connect feature which establishes a direct connection with Exchange servers/Microsoft 365 or Gmail. This also ensures the email is sent by the logged in user (not via the generic MFP address). The email containing the scanned document is then stored in the user's sent folder. For the Exchange server, all server rules and security (e.g. size limit, destination restrictions) are applied to maintain the organization's email security policy.

Audit Trail Security

The Sharp granular audit log and job log feature provides comprehensive auditing of all user activity. Certain federal regulations parameters, such as "to," "from," "when" and "file name" can be logged, reviewed and archived for conformance. In addition, IT managers can monitor and review event logs such as when and what setting changes were made, or what IP addresses access the device. Real-time events can be sent to an organization's Syslog or SIEM system for integrated security management. The Sharp event log utilizes industry standard Syslog protocol RFC 5424/3164, allowing for integration with many systems.

SECURITY FEATURES AT-A-GLANCE[6]

DATA AND INFORMATION SECURITY

Sharp MFPs provide a wide range of data security capabilities as an integral part of the device's architecture, or as a function of an optional Data Security Kit (DSK).

- Automatic Data Overwrite
- Manual Data Overwrite (requires DSK)
- Custom and DoD 5200.22-m
- End-of-Lease Data Erase
- Power-up Data Overwrite (requires DSK)
- 256-Bit AES Data Encryption
- Trusted Platform Module (TPM)
- BIOS Integrity Check at Startup
- Real-time Intrusion Detection
- Bitdefender Antivirus Protection
- Application Whitelisting
- Self-recovery Firmware
- Data Back Up

NETWORK SECURITY

Network security with MFPs and printers is one of the most critical concerns. Sharp offers various features to help protect organizations' IT network.

- TLS Encryption (2048 bit Key supported)
- Security Policy Management
- SNMPv3 Support
- SNMP Community Name Support
- Kerberos
- IPv6 and IPsec
- Device Certificates
- IP Address Filtering
- MAC Address Filtering
- Port Control
- IEEE 802.1X™ Authentication

ACCES CONTROL SECURITY

Sharp MFPs can be configured to help provide iron-clad user access control.

- User Authentication (Local/LDAP/Active Directory)
- Group Authorization
- Active Directory Group Policy
- Page Limit Control
- Password Protected Access to Device Web Page (Administrator and User)
- User Authority Setting
- Single-Sign-On (Kerberos and OAuth Token)
- Management of Currently Logged-In Users
- USB Card Reader Support
- ID Card User Authentication
- Scan-to-Home and Scan-to-Me
- Restrict List Printing[7]
- Disable Destination Selection
- Disable Address Book Registration
- Receipt Rejection from Specified Sender(s)

EMAIL SECURITY

Send to email is one of the most common tasks for document scanning. Organizations can ensure secure send to email with Sharp MFPs.

- User Authentication
- S/MIME
- Send Only to Logged in User's Email Address
- Send from Logged in User (Email Connect)
- Store Sent Email on Sent Item Folder
- Apply Exchange Email Rules to Send to Email
- Single-Sign-On (SSO) (Kerberos and OAuth token)

FAX SECURITY

(Fax option may be required)
Customers who have Sharp MFPs equipped with the fax option can be assured that the architecture of the MFP provides a logical separation between the fax telephone line and the Local Area Network (LAN).

- Segregated Fax Line
- Prevention of Junk Fax
- Confidential Fax

MOBILE AND WIFI SECURITY

Embrace mobile printing and scanning by eliminating unauthorized access to corporate network.

- User Authentication
- Print Retention
- PIN Number Printing
- Access Point WiFi Mode

DOCUMENT SECURITY

Protecting data on an MFP is only part of what's required to ensure complete end-to-end document security. Sharp MFPs employ a number of means, that if implemented, can help assure customers that their document data will remain confidential.

- Secure Print Release with a PIN Number
- Encrypted PDF (AES 256 bit Encryption)
- Encrypted PDF Lockout
- Tracking Information Print
- Hidden Pattern Print and Detection[7]

PRINT SECURITY

Printing is the most common use of MFPs and printers. Sharp helps protect and secure print jobs during transition and at the printer.

- User Authentication
- TLS Encryption
- Secure Print Release with a PIN Number
- Serverless Print Release
- Sharp OSA Applications

AUDIT TRAIL SECURITY

Sharp MFPs offer extensive internal logging. Audit tracking is often a critical component to monitor user and device activity. Sharp MFPs can also provide the following information:

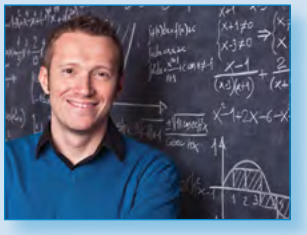
- Job Log and Usage Tracking
- Image Job Log
- Reporting and Data Export
- Administrator System Audit Logs
- Syslog Protocol RFC 5424/3164 for Syslog/SIEM Integration
- Program Partner Applications
- SRDM Security Policy Management Features

MEETING SECURITY STANDARDS AND CERTIFICATIONS

Security for Private Sector and Corporate Organizations

Sharp MFPs provide robust control over information access, transmission and tracking to facilitate compliance with stringent mandates. This can mitigate risk and help avoid any penalties or lawsuits for noncompliance. By implementing the Sharp Security Suite, Sharp MFPs can help many types of organizations reach and maintain compliance:

- **Educational Institutions** can meet the requirements of the Family Educational Rights and Privacy Act (**FERPA**) to protect student education records.
- **Financial Institutions** can maintain the privacy requirements of the Gramm-Leach-Bliley Act (**GLBA**).
- **Healthcare and Insurance Providers** can achieve and sustain Health Insurance Portability and Accountability Act (**HIPAA**) compliance with confidence.
- Businesses across all industries can benefit from the strict controls over financial information required under the Sarbanes-Oxley (**SOX**) Act.



Security for Public Sector and Government Organizations

Threats to government infrastructure are rapidly growing and the number of attacks continue to rise. On one hand, information sharing is critical for the efficiency of these organizations. On the other hand, security management is becoming more challenging for IT managers. Sharp can help your organization meet US and local government information security requirements through ISO 15408/Common Criteria certifications or comprehensive security features such as data encryption, End-of-Lease feature, administrator audit logs and more.

- **Common Criteria (CC)**

  Common Criteria provides a high level of confidence in the security functions of the products evaluated. Sharp was the first MFP manufacturer to achieve certification against the new Common Criteria Protection Profile for Hardcopy Devices v1.0 (HCD-PP v1.0).

Sharp OSA Technology Enables Integration, Customization and Personalization with Enhanced Security

Sharp OSA technology is a software development platform for Sharp A3 MFPs and select A4 MFPs. It is based on industry standard Web-services/ Web API technology and delivers integrated and customized interfaces which help streamline your business processes. Sharp OSA technology helps provide extended access to mission critical business information while your IT network and security policies are maintained.

Sharp OSA Technology for Your Organization

Sharp OSA technology can help employees at every level of your organization by optimizing your IT investment, reducing costs, enhancing productivity and simplifying IT management:

Business Owners, CEOs, COOs and CFOs

- Optimized investments in imaging systems.
  - Improved employee performance.
  - Compliance with industry regulations.
  - Cost reductions and optimized Sharp MFP capability.

End-Customers and Business Process Owners

- Instant productivity through engaging interfaces.
  - Intuitive and easy-to-use graphical user interface.
  - Simplified steps to process documents faster.
  - Seamlessly integrated daily document workflow.

IT Managers and Administrators

- Integrated document and information security.
  - Improved access control and user management and usage tracking.
  - Integrated corporate IT assets and security policies.
  - Simplified management and support.

Application Developers and System Integrators

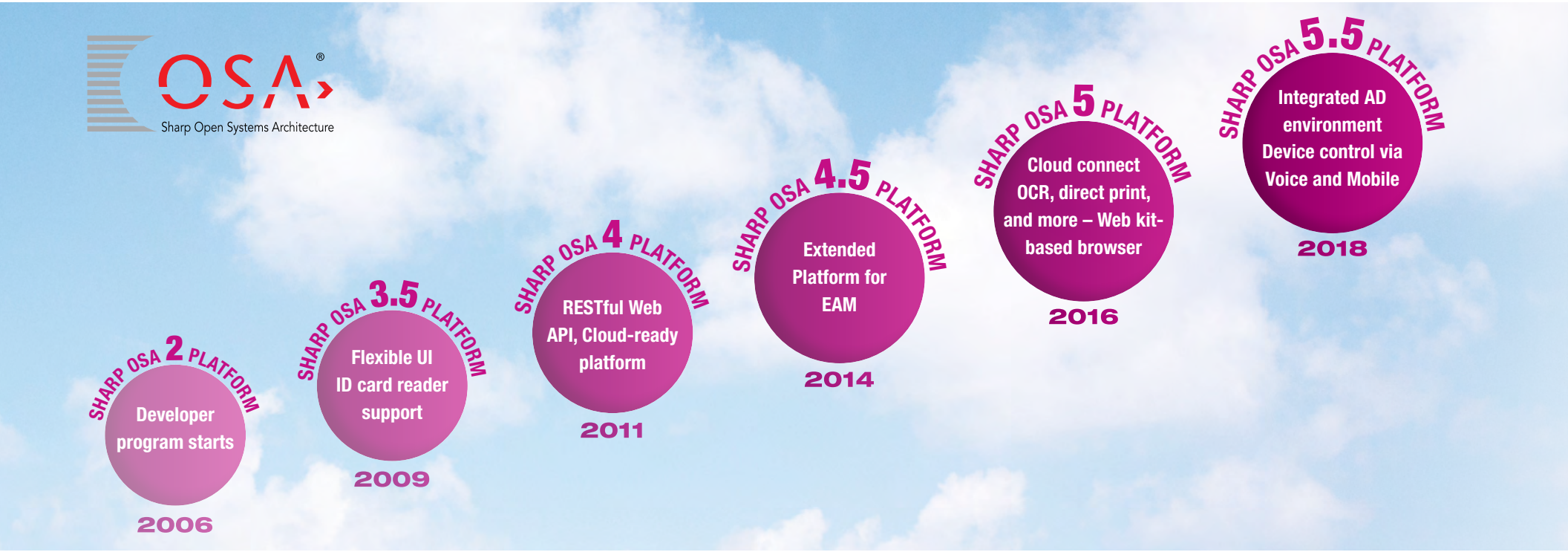
- Extensive support and resources to accelerate development.
  - One of the strongest programs and developer networks in the industry.
  - Variety of resources available, including MFP simulator, documentation, developer hotline and more.
  - Wide range of programming languages supported on Web services/web API and Webkit browser-based platform.

Industry Leader in Web Service-based MFP Technology Platform

Sharp pioneered the first web services-based MFP technology platform. Since the birth of Sharp OSA technology, Sharp has been playing an important role in creating the industry's ecosystem. Developing strong connections among independent software vendors, solution providers and IT customers, Sharp has been helping organizations become more competitive in the marketplace.

Cloud-ready Platform for Intelligent IT Decision Making

Sharp OSA technology is cloud ready, enabling your IT department to make intelligent and informed decisions when it comes to solution deployment. With RESTful Web API, Sharp OSA technology supports Software as a Service (SaaS) or cloud-enabled environments by efficiently assisting communications involving intermediaries such as firewalls. Enabling secure and scalable communications, Sharp OSA cloud-ready technology further expands flexibility in how the document workflow and security solutions are implemented.



Sharp OSA SDK and License Types

The Sharp OSA Software Development Kits (SDKs) are designed to meet practically every development objective and business need.

TYPES OF SHARP OSA SDK

PLATFORM	STANDARD SHARP OSA SDK (SUPPORTED ON ALL SHARP OSA VERSIONS)	EXTENDED SHARP OSA SDK (AVAILABLE ON SHARP OSA4 AND ABOVE PLATFORM)
Functions	• On-Premises Communication Support	• Cloud/SaaS On-Premises Communication Support
	• UI Customization	• UI Customization (Webkit-based browser available for Sharp OSA 5 platform)

	• Job Control
	  • Scan
	  • Print
		• Job Control
		  • Scan
		  • Print
		  • Copy
		  • Fax and Internet Fax
		  • Document Filing

	• EAM Account Control	• EAM Account Control
	• USB Device Control	• USB Device Control

The following modules enable Sharp OSA technology on the device. Select MFP models include these modules as standard.[8]

- **MX-AMX2L/BP-AM10L Application Communication Module (ACM)**
  Allows Sharp OSA applications to control jobs and functions of scan, print, copy, and fax.

- **MX-AMX3L/BP-AM11L External Accounting Module (EAM)**
  Allows Sharp OSA applications to control accounting features.

SHARP PARTNER PROGRAM

ALIGN WITH TECHNOLOGY LEADERS

Sharp is committed to meeting the ever-changing demands of the market and has fostered an active and extensive Sharp OSA Developer community whose products help add value and functionality to our award-winning MFPs. As one of the most inclusive in the industry, membership in the Sharp Partner Program is open to qualified software and hardware vendors, authorized dealers and Sharp customers.

Working with Sharp technology, including the Sharp OSA platform, Sharp Partner Program members are able to deliver highly customized solutions that enable MFPs to reach deeper into the organization than ever before. They are also able to develop unique and engaging user interfaces on the LCD display that help facilitate operation and can help increase productivity and overall efficiency. Customers can choose to leverage an existing Sharp OSA-developed application or they can join the program to develop their own custom integrations.

All members of the Sharp Partner Program, Sharp OSA Developers and companies with compatible applications, are given the option to join the Marketing Program to have their products validated by Sharp and gain access to joint marketing tools. There are two types of validation:

- **Sharp OSA Validation**

  Sharp OSA Validation tests the developer's application against a set of criteria to help ensure that the connection between Sharp OSA-enabled MFPs and the developer's application works as specified. Upon successful completion of testing, the integration earns the recognition of being Sharp OSA Validated and is promoted with the use of the Sharp OSA Validation icon, providing you with assurance of successful operation on the supported Sharp OSA-capable MFPs.

- **Sharp Compatible Validation**

  In addition to developers of Sharp OSA applications, the Sharp Marketing Program is also open to qualified software and hardware vendors with products complementary to Sharp MFPs. To qualify, vendors must submit their product for Sharp Compatible Validation. Once validated, the compatible product is promoted with a unique Sharp Compatible Validation icon, providing confidence that they will work with supported Sharp MFPs.

VALIDATED PROGRAM MEMBER PRODUCTS[9]

ACDI

ACDI is a manufacturer of superior copy and print control devices. The EX2000SWB Vending System copy and print control device allows users to make copies via coins, bills, cards and/or PIN accounts. It provides payment options with optimum reportability. In addition, it allows organizations the option to charge multiple price lines for color, B&W and premium paper sizes. You can track all meter usage through comprehensive reports that make reconciling easy.

ATI

ATI has been established internationally for over 30 years and specializes in print management output software solutions. docQmanager software is a simple to use, cost effective print room output management and web-to-print software for in-plant reprographics print rooms. Integrating seamlessly with the leading print job accounting cost recovery systems, ATI software gives organizations a powerful solution for managing print workflow and controlling print costs throughout their operations.

BITS

Formed in 1990, Business I.T. Systems Ltd. has developed a number of innovative software solutions designed to bring productivity gains to digital and networked environments. They are the makers of Metis, which is designed to report meter click information either collected automatically from the email server or entered manually (for those machines that do not have the email capability). Reports can be printed in a variety of formats giving the flexibility to record the required information. From the reports users can be billed for their prints and copies giving the ability to recharge the cost.

Corelan Technologies

Corelan Technologies is a software development company with expertise in the Document Management domain. Corelan's core products include software for document archiving, workflow and business process automation, deployed as an appliance, on-premises and cloud. Docukit is a server and document management software in one, providing direct integration with Sharp OSA®-enabled MFPs. With secure login credentials, only authorized personnel will have access to search, view, download and edit the archived files. Since all components are built-in and integrated, implementation is fast and easy.

DPD International

DPD International, maker of GoldFax™ software, is a leader in Windows Network Fax Server solutions providing affordable prices for small, medium and Fortune 1000 organizations worldwide. The GoldFax application, built on Microsoft .NET™ technology, integrates Sharp OSA-enabled MFPs into an enterprise-class Fax Server solution at a small business price.

directprint.io

Headquartered in Wales, UK, directprint.io is a leader in delivering automated print management solutions. Since 2015, directprint.io has been providing the industry with an innovative SaaS print management solution with real-time, business-changing software insights. directprint.io combines the power of cloud administration and local network printing. Their unique universal driver simplifies roll-out and maintenance, resulting in zero-touch deployment at scale. directprint.io helps customers deploy, secure, control, and track printing. Their cloud-based dashboard, provides real-time, actionable insights allowing customers to take control of their print environment.

ECI

ECI Software Solutions provides industry-specific business software solutions and services, focusing on cloud-based technologies. For 30+ years, ECI has served small to medium-sized manufacturing, wholesale/retail distribution, building and construction, and field service organizations. e-automate®, an ERP solution designed specifically for service providers, enables service providers to manage all areas of their operation with automated workflows, robust reporting, and seamless integrations with our value-add offerings. Powered by our data collection agent (DCA), our remote monitoring tools collect critical print data and send this information to a web interface where dealers can view and analyze the data, set up automated service alerts, schedule reports, export meters, and manage their print management program. Our User Management solution tracks print behavior and enables organizations to analyze, reduce, and recover their printing and photocopying costs.

Elatec

Elatec USA, Inc. provides RFID card readers to be used in the document management services market. The TWN4 MultiTech Card Reader can read the majority of the card technologies on the market today and can simultaneously detect those cards from both the 125kHz / 134.2kHz and 13.56MHz frequency bands. The reader communicates with the MFP or printer via USB and enables user authentication at the device and is supported by virtually all major document management software solutions.

EveryonePrint

EveryonePrint specializes in software development, web and payment processing. Their products and services are used globally by many universities, educational institutions, government agencies and corporations worldwide. EveryonePrint Mobile Printing Software was developed in response to the many requests for features not found in any other mobile print solution. EveryonePrint installs in minutes, and lets users print from their notebooks or mobile devices with extreme ease.

Fabsoft

Fabsoft is a software manufacturer specialized in the automation of various document technologies involving variable data printing, document capture, distribution and print management. With over 20 years of experience, their best-in-class software is backed by highly trained product specialists that help companies implement the perfect workflow solution. The Reform® VDP is a fully scalable and versatile software solution capable of automating every critical workflow process within a business, such as document routing, print management and variable data printing. Reform possesses the capacity to boost a company's day-to-day productivity, thereby promoting sustainable business growth.

FaxCore

Leveraging more than 15 years of fax server industry experience, FaxCore Inc. is a leading provider of fax server solutions. FaxCore™ is a fax server built on the Microsoft .NET® platform. Fax-enabled Sharp OSA-capable MFPs, email servers and other business applications easily and seamlessly. FaxCore's Web interface allows for browser-based faxing anywhere anytime and the appliance approach is easy to sell and support.

InfoDynamics

InfoDynamics is the innovator of inPOINT and Intact Document Solution Software. inPOINT supercharges your Sharpdesk software or Network File System with auto-naming and filing of scanned documents and can query existing databases to help eliminate 90 percent of data entry and make renaming, moving and filing a thing of the past. Intact SMART™, a simple and fresh new take on feature-rich document management is a powerful easy-to-use solution that turns Sharp OSA-enabled MFPs into the center of productivity for any business. With Intact Books SMART™, the innovative integration with QuickBooks® you will increase productivity, ease-of-use and maintain uncompromising security.

Jamex

Since its inception in 1981, Jamex has consistently delivered high-quality vending solutions for copiers, network printers and fax machines. Jamex provides software and hardware for self-service copy and print vending in a wide variety of vertical markets. The NetPad™ Touch boasts an array of impressive hardware and software features, making it the easiest, most secure self-service credit card vending solution.

LRS Output Management

LRS is a global software provider specializing in document solutions and output management. Drivve | Image streamlines digitization and document routing processes with advanced, customizable tools for automated document capture, processing and secure distribution. Drivve | Print is a comprehensive print management solution with extensive usage tracking and reporting capabilities, rules-based printing, fleet management tools, embedded pull-printing and device authentication.

M-Files

M-Files enterprise information management (EIM) solutions can help improve and simplify how businesses manage documents and other information in order to become more productive, more efficient and stay compliant. M-Files helps eliminate information silos and provides quick and easy access to the right content from any core business system and device. The unique metadata-driven architecture enables users to find the right document instantly with a keyword search – no need to navigate through folder structures. Plus, check-out and check-in features eliminate problems of data loss that can result with simultaneous changes to documents.

MyQ Solution

MyQ Solution is top-of-the-line print management software featuring functions that make printing secure, accessible, and cost-effective. Its printer panel interface allows for personalization and saves users time with easy one-click functions. Powerful document-digitizing workflows enhance the scanning experience with efficient automation, and advanced accounting and reporting tools inform print cost management.

OpenText

OpenText, The Information Company™, enables organizations to gain insight through market leading information management solutions, powered by OpenText Cloud Editions. OpenText acquired XMedius in March 2020. OpenText™ XM Fax™, a digital fax solution, delivers the features and functionality to keep business flowing with reliable, secure and efficient communications and easy administration. An enterprise-grade solution, XM Fax allows employees to easily fax from workstations, email, business applications, mobile devices and multi-function printers (MFPs), integrating with and streamlining workflows across organizations. For more information about OpenText visit opentext.com.

PaperCut

PaperCut Software is an Australian company that developed PaperCut™ MF, the low cost software solution that enables the control and management of printers and multifunction devices. PaperCut MF is primarily used to manage print and copy access, implement quotas, charge per page and account by user, department or client via silent tracking or enforced selection. The application is used across all markets: education and small, medium or enterprise businesses ranging from one to many hundreds of thousands of users.

Pcounter

Created in 1993, Pcounter is a division of A.N.D. Technologies, a pioneer in innovative print management software. Pcounter is a popular and competitively priced application used worldwide for print/copy tracking and management most often in education and other vertical business markets to track usage on printers of all shapes and sizes. Sharp OSA technology helps extend the functionality of Pcounter to include tracking of all walkup activity (copy/fax/scan) on Sharp OSA-enabled MFPs. It also provides authentication services, both card-based and data input, via the LCD touchscreen.

PrinterLogic

Vasion's PrinterLogic helps IT professionals eliminate all print servers and deliver a highly available Serverless Printing Infrastructure. With PrinterLogic's centrally managed direct IP printing platform, customers empower their workforce with mobile printing, secure release printing and many other advanced features that legacy print managementapplications can't provide.

Prism Software

Prism Software provides a complete suite of industry-leading software applications for the MFP and printer markets. The DocRecord application is an advanced and powerfully featured, low cost document management system for all types of organizations. DocRecord® provides both local and web-based document search and retrieval. Features include: email retention, Microsoft Office integration, OCR, batch scanning, full text search, advanced search functions, viewing of over 300 file types in their native formats, automated document filing and indexing, audit trails, check-in and check-out, Bates stamping, versioning, roll-back, high security and much more.

rf IDEAS

RF IDeas designs, develops and manufactures proximity and contactless reader solutions that expand building access cards to hundreds of applications. For multifunction printers, the devices blend the need for security and convenience by utilizing the existing employee ID badge as authentication and to eliminate the need to type or key entry. AIR ID® Enroll is a USB reader that enables the use of common contactless smartcard badges for secure printing. WAVE ID Solo is a USB reader that enables the use of common proximity badges for secure printing. pcSwipe® is a USB reader that enables the use of common magnetic stripe badges for authentication and secure printing. WAVE ID® Plus is a USB reader for both 125kHz and 13.56MHz frequencies.

Ringdale

Ringdale is the global provider of FollowMe®, the document output management solution, which provides unrivalled flexibility for organizations looking to reduce costs, increase security and improve the efficiency of their printing environments. FollowMe ensures usability and adaptability within diverse printing environments, supporting both host and office printing. Ringdale invented FollowMe and the print roaming technology in 1997 and has continued to bring customer focused solutions to market worldwide. *www.followme.ringdale.com*

RSA

Since 1986, RSA has focused exclusively on solving printing challenges for customers by delivering software solutions that make printing documents convenient, simple, accurate and cost-effective. WebCRD™ is an enterprise-class, award-winning Web-based ordering, production management and cost tracking application that automates job submission to the print center. With RDOPrint™, you can leverage your investment in documents created by Xerox® FreeFlow Makeready and DigiPath. RDOPrint converts the proprietary Xerox®RDO (Raster Document Objects) files to PostScript so they can be printed on Sharp MFPs or converted to Adobe® PDF for convenient viewing, sharing and archival.

Spiral Binding Company, Inc.

Spiral Binding Company, Inc. is an 80 year old manufacturer of document finishing equipment that compliments Sharp MFPs & Printers. Bundling Sharp equipment with Spiral's can offer customers a complete solution for off-line and near-line finishing. Spiral has document finishing equipment for small to mid-size offices, up to large high-speed production units for commercial printers, in-house copy/graphics centers, government, schools and print for pay markets.

Square 9 Softworks

Square 9 Softworks is a leading developer of innovative, business-centric software solutions including the award-winning GlobalSearch® Document Management Suite. Dedicated to making document management available to organizations of all sizes, Square 9 Softworks designs solutions built on open architecture and cutting-edge technologies that drive efficiency and productivity across all business applications. GlobalSearch Office Workflow and the powerful line of Sharp OSA-enabled MFPs can help evolve your office with the introduction of effortless document management. Through direct integration with your Sharp MFP you can easily scan, distribute and store all your documents in a centralized repository.

Umango

Umango is a global leader in the development of document scanning, file conversion and imaging software. They develop applications that are powerful, yet easy to install, configure and use. With virtually seamless connectivity into back office products, their solutions bring flexibility and efficiency to document processing. Umango is a document capture conversion and routing utility that runs as a Windows service. Documents are triggered from MFPs, email attachments or network folders and converted into a range of document formats (docx, xlsx, searchable pdf/a etc.), then routed into network folders or a variety of office products. Umango Extract is a scanning application that delivers efficiency in scanning, indexing and storing of documents.

X-Rite

X-Rite is the global leader in color science and technology. The company, which now includes design industry color leader Pantone, Inc., develops, manufactures, markets and supports innovative color management solutions including measurement systems, software, color standards and services. ColorMunki Design is an all in one profiling solution combining hardware and software that allows you to work with any color from the visible spectrum. Select PANTONE® colors or capture colors from just about any substrate, plus preview out-of-gamut colors. ColorMunki Design offers essential color control functions for calibrating displays, projectors and printers all in one device.

Y Soft

Founded in 2000, Y Soft is a progressive, globally operating company that provides print management solutions that enable companies and organizations of all sizes to control reprographic costs and reduce waste. YSoft SafeQ® is an authentication, accounting and access control solution that helps organizations simplify and secure scanning, copying and printing and enforce policies for use of printers and multifunction devices.

Print and Network Compatibility (**A3 Monochrome**)

	BP-50M26/50M31/50M36/ 50M45/50M55/50M65	BP-70M31/70M36/70M45/ 70M55/70M65	BP-70M75/70M90	MX-M1056/M1206 (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS				
Speed	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	75/90 ppm	105/120 ppm
Function	C/P/S/F	C/P/S/F	C/P/S/F	C/P/S
Maximum Paper Size	12" x 18"	12" x 18"	12" x 18"	12" x 18"
On-screen Image Preview	Std	Std	Std	Std
Change Toner While Printing	-	-	Std	Std
Network Scanning	Std	Std	Std	Std
Hard Disk Drive/Solid State Drive	Std SSD (128 GB)	Std SSD (256 GB)	Std SSD (256 GB)	Std HDD (1 TB)
Remote Front Panel	Std	Std	Std	Yes
Retractable Keyboard	-	Std	Std	Std
Sharp OSA® Platform Version	V6	V6	V6	V5.5
Natural Language Interface				
Sharp Copier Skill For Amazon Alexa	Yes	Yes	Yes	Yes
Network Print & Scan Support				
Wireless LAN	Yes	Std	Std	-
QR Code	Std	Std	Std	Std
NFC Peer-to-Peer	Std	Std	Std	-
Universal Print Support	Yes	Std	Std	Std
Sharpdesk® Mobile Compatibility	Yes	Yes	Yes	-
AirPrint	Yes	Std	Std	Std
Sharp Print Service Plugin For Android™ Printing Framework	Yes	Yes	Yes	Yes
Synappx Go	Yes	Yes	Yes	Yes
Distributed File Systems (DFS)	Std	Std	Std	Std
IPv6	Std	Std	Std	Std
PostScript® Support	Yes	Std	Std	Std
Microsoft Office Direct Printing	Yes	Std	Std	Std
Built-in OCR	Yes	Std	Std	Std
USB Printing	Yes	Std	Std	Std
Compact PDF (Scan)	Std	Std	Std	Std

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (**A3 Monochrome**) *continued*

	BP-50M26/50M31/50M36/ 50M45/50M55/50M65	BP-70M31/70M36/70M45/ 70M55/70M65	BP-70M75/70M90	MX-M1056/M1206 (without Fiery option)
OS/Application Support				
Windows® 11	Yes	Yes	Yes	Yes
Windows® 2022 Server	Yes	Yes	Yes	Yes
Sharp Universal Driver (for Windows)	Yes	Yes	Yes	Yes
macOS® 12	Yes	Yes	Yes	Yes
Linux®	Yes	Yes	Yes	Yes
SAP® Device Types	Yes	Yes	Yes	Yes
Cloud and Email Connect Features				
OneDrive®	Yes	Std	Std	Yes
SharePoint® Online	Yes	Std	Std	Yes
Microsoft Teams	Yes	Yes	Yes	Yes
Google Drive™	Yes	Std	Std	Yes
Box™	Yes	Yes	Yes	Yes
Dropbox	Yes	Yes	-	Yes
Exchange On-premises/Online (Microsoft 365™)	Yes	Std	Std	-
Gmail™	Yes	Std	Std	-
Citrix®				
Citrix Virtual Apps 7 2106 Environment	-	-	Validated	-
Citrix Virtual Apps 7 1912 LTSR Environment	Validated	Validated	Validated	Validated
Citrix XenApp 7.15 LTSR Environment	Validated	Validated	-	Validated
Healthcare Environment				
Cerner®	In Progress	In Progress	Validated	Validated
Epic*	Compatible*	Compatible*	Compatible*	Compatible*
Meditech Magic OS**	Compatible**	Compatible**	Compatible**	Compatible**

* Each Epic customer will have an employee trained as the Epic Technical Advisor. The Technical Advisor will approve print output device placements. ** Sharp MFPs that support PCL5. PCL 5c or PCL 5e are compatible with MEDITECH Magic OS.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (**A4 Monochrome**)

	DX-B351PL/B352P	MX-B427W	MX-B427PW	MX-B467P	MX-B467F	MX-B557P/B707P	MX-B376WH/B476WH	MX-B557F
GENERAL MFP FEATURES/FUNCTIONS								
Speed	35 ppm	42 ppm	42 ppm	46 ppm	46 ppm	55/70 ppm	37/47 ppm	55 ppm
Function	P	C/P/S/F	P	P	C/P/S/F	P	C/P/S/F	C/P/S/F
Maximum Paper Size	Legal	Legal	Legal	Legal	Legal	Legal	Legal	Legal
On-screen Image Preview	-	-	-	-	Std	Std	Std	Std
Network Scanning	-	Yes	-	-	Yes	-	Std	Std
Hard Disk Drive/Solid State Drive	-	-	-	-	Yes	Yes	Std	Std
Remote Front Panel	-	-	-	-	Yes	Yes	Std	Std
Retractable Keyboard	-	-	-	-	-	-	-	-
Sharp OSA® Platform Version	-	-	-	-	-	-	V5.5	-
Natural Language Interface								
Sharp Copier Skill For Amazon Alexa	-	-	-	-	-	-	Yes	Yes
Network Print & Scan Support								
Wireless LAN	Std (B352P)	Std	Std	Yes	Yes	Yes	Std	Std
QR Code	-	-	-	-	Std	Std	Std	Std
NFC Peer-to-Peer	-	-	-	-	-	-	Yes	Yes
Universal Print Support (with Connector)	Std	Std	Std	Std	Std	Std	Std	Std
Sharpdesk® Mobile Compatibility	-	-	-	-	-	-	Yes	-
AirPrint	Yes	Std	Std	Std	Std	Std	Std	Std
Sharp Print Service Plugin For Android™ Printing Framework	-	-	-	-	-	-	Yes	-
Distributed File Systems (DFS)	-	-	-	-	-	-	Std	Std
IPv6	Yes	Std	Std	Std	Std	Std	Std	Std
PostScript® Support	Yes	Std	Std	Std	Std	Std	Std	Std
Microsoft Office Direct Printing	-	-	-	-	Std	Std	Std	Std
Built-in OCR	-	-	-	-	-	-	Std	Std
USB Printing	Yes	Std	Std	Std	Std	Std	Std	Std
Compact PDF (Scan)	-	-	-	-	Yes	-	Std	Std

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (**A4 Monochrome**) *continued*

	DX-B351PL/B352P	MX-B427W	MX-B427PW	MX-B467P	MX-B467F	MX-B557P/B707P	MX-B376WH/B476WH	MX-B557F
OS/Application Support								
Windows® 11	Yes	Std	Std	Std	Std	Std	Std	Std
Windows® 2012 Server	-	Std	Std	Std	Std	Std	Std	Std
Sharp Universal Driver (for Windows)	Yes	Std	Std	Std	Std	Std	Std	Std
macOS® 12.6	10.13	Std	Std	Std	Std	Std	Std	Std
Linux®	-	Std	Std	Std	Std	Std	Std	Std
SAP® Device Types	-	Std	Std	Std	Std	Std	Std	Std
Cloud and Email Connect Features								
OneDrive®	-	-	-	-	Yes	-	Std	Yes
SharePoint® Online	-	-	-	-	Yes	-	Std	Yes
Microsoft Teams	-	-	-	-	-	-	Yes	-
Goggle Drive™	-	-	-	-	Yes	-	Std	Yes
Box™	-	-	-	-	Yes	-	Yes	Yes
Dropbox	-	-	-	-	Yes	-	Yes	Yes
Exchange On-premises/Online (Microsoft 365™)	-	-	-	-	Yes	-	Std	Yes
Gmail™	-	-	-	-	Yes	-	Std	Yes
Citrix®								
Citrix Virtual Apps 7 2106 Environment	-	-	-	-	-	-	-	-
Citrix Virtual Apps 7 1912 LTSR Environment	-	-	-	-	-	-	-	-
Citrix XenApp 7.15 LTSR Environment	-	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Healthcare Environment								
Cerner®	-	Validated	Validated	Validated	Validated	Validated	Certified	Validated
Epic*	-	Compatible*	Compatible*	Compatible*	Compatible*	Compatible*	Compatible*	Compatible*
Meditech Magic OS**	-	Compatible**	Compatible**	Compatible**	Compatible**	Compatible**	Compatible**	Compatible**

* Each Epic customer will have an employee trained as the Epic Technical Advisor. The Technical Advisor will approve print output device placements. ** Sharp MFPs that support PCL5. PCL 5c or PCL 5e are compatible with MEDITECH Magic OS.

Items indicated with "Yes" in the table above may require additional options or software downloads.

Print and Network Compatibility (**A3 Color**)

	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS				
Speed	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	70/80 ppm	70/80 ppm
Function	C/P/S/F	C/P/S/F	C/P/S/F	C/P/S
Maximum Paper Size	12" x 18"	12" x 18"	13" x 19"	13" x 19"
On-screen Image Preview	Std	Std	Std	Std
Change Toner While Printing	55/65 ppm Models	55/65 ppm Models	Std	Std
Network Scanning	Std	Std	Std	Std
Hard Disk Drive/Solid State Drive	Std SSD (128 GB)	Std SSD (256 GB)	Std HDD (1 TB)	Std HDD (1 TB)
Remote Front Panel	Std	Std	Std	Std
Retractable Keyboard	-	Std	Std	Std
Sharp OSA® Platform Version	V6	V6	V5.5	V5.1
Natural Language Interface				
Sharp Copier Skill For Amazon Alexa	Yes	Yes	Yes	-
Network and Print & Scan Support				
Wireless LAN	Yes	Std	Std	-
QR Code	Std	Std	Std	-
NFC Peer-to-Peer	Std	Std	Std	-
Universal Print Support	Yes	Std	Std	Std
Sharpdesk® Mobile Compatibility	Yes	Yes	Yes	-
AirPrint	Yes	Std	Std	-
Sharp Print Service Plugin For Android™ Printing Framework	Yes	Yes	Yes	-
Synappx Go	Yes	Yes	Yes	Yes
Distributed File Systems (DFS)	Std	Std	Std	Std
IPv6	Std	Std	Std	Std
PostScript® Support	Yes	Std	Std	Std
USB Printing	Yes	Std	Std	Std
Microsoft Office Direct Printing	Yes	Std	Std	Std
Built-in OCR	Yes	Std	Std	Std
Compact PDF (Scan)	Std	Std	Std	Std

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (**A3 Color**) *continued*

	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
OS/Application Support				
Windows® 11	Yes	Yes	Yes	Yes
Windows® 2022 Server	Yes	Yes	Yes	Yes
Sharp Universal Driver (for Windows)	Yes	Yes	Yes	No
macOS® 12	Yes	Yes	Yes	Yes
Linux®	Yes	Yes	Yes	Yes
SAP® Device Types	Yes	Yes	Yes	Yes
Cloud and Email Connectivity				
OneDrive®	Yes	Std	Yes	Std
SharePoint® Online	Yes	Std	Yes	Std
Microsoft Teams	Yes	Yes	Yes	Yes
Googe Drive™	Yes	Std	Yes	Std
Box™	Yes	Yes	Yes	Yes
Dropbox	Yes	Yes	Yes	-
Exchange On-premises/Online (Microsoft 365™)	Std	Std	Yes	Yes
Gmail™	Std	Std	Std	Std
Citrix®				
Citrix Virtual Apps 7 2106 Environment	-	-	-	-
Citrix Virtual Apps 7 1912 LTSR Environment	Validated	Validated	-	-
Citrix XenApp 7.15 LTSR Environment	Validated	Validated	Validated	-
Healthcare Environment				
Cerner®	In Progress	In Progress	Validated	-
Epic*	Compatible*	Compatible*	Compatible*	Compatible*
Meditech Magic OS**	Compatible**	Compatible**	Compatible**	Compatible**

* Each Epic customer will have an employee trained as the Epic Technical Advisor. The Technical Advisor will approve print output device placements. ** Sharp MFPs that support PCL5. PCL 5c or PCL 5e are compatible with MEDITECH Magic OS.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (**A4 Color**)

	MX-C303WH/C304WH	MX-C357F	MX-C407F/C507F	MX-C407P	MX-C507P	MX-C607P
GENERAL MFP FEATURES/FUNCTIONS						
Speed	30 ppm	35 ppm	40/50 ppm	40ppm	40/50 ppm	60 ppm
Function	C/P/S/F	C/P/S/F	C/P/S/F	P	C/P/S/F	P
Maximum Paper Size	Legal	Legal	Legal	Legal	Legal	Legal
On-screen Image Preview	Std	Std	Std	Std	Std	Std
Network Scanning	Std	Std	Std	-	-	-
Hard Disk Drive/Solid State Drive	Std	Yes (500 GB)	Yes (C407F) (500 GB) Std (C507F) (500 GB)	Yes (500 GB)	Yes (500 GB)	Yes (500 GB)
Remote Front Panel	Std	Yes	Yes	Yes	Yes	Yes
Retractable Keyboard	-	-	-	-	-	-
Sharp OSA® Platform Version	V5.5 Lite	-	-	-	-	-
Natural Language Interface						
Sharp Copier Skill For Amazon Alexa	Yes	-	-	-	-	-
Network and Print & Scan Support						
Wireless LAN	Std	Yes	Yes	Yes	Yes	Yes
QR Code	Std	Std	Std	Std	Std	Std
NFC Peer-to-Peer	Yes	-	-	-	-	-
Universal Print Support (with Connector)	Std	Std	Std	Std	Std	Std
Sharpdesk® Mobile Compatibility	Std	-	-	-	-	-
AirPrint	Std	Std	Std	Std	Std	Std
Sharp Print Service Plugin For Android™ Printing Framework	Std	-	-	-	-	-
Synappx Go	Yes	Yes	Yes	Yes	Yes	Yes
Distributed File Systems (DFS)	Std	-	-	-	-	-
IPv6	Std	Std	Std	Std	Std	Std
PostScript® Support	Yes	Std	Std	Std	Std	Std
USB Printing	Yes	Std	Std	Std	Std	Std
Microsoft Office Direct Printing	Yes	Std	Std	Std	Std	Std
Built-in OCR	-	Yes	No (C407F) Std (C507F)	-	-	-
Compact PDF (Scan)	Std	Yes	Yes	-	-	-

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Print and Network Compatibility (A4 Color) *continued*

	MX-C303WH/C304WH	MX-C357F	MX-C407F/C507F	MX-C407P	MX-C507P	MX-C607P
OS/Application Support						
Windows® 11	Std	Std	Std	Std	Std	Std
Windows® 2022 Server	Std	Std	Std	Std	Std	Std
Sharp Universal Driver (for Windows)	Std	Std	Std	Std	Std	Std
macOS® 12	Std	Std	Std	Std	Std	Std
Linux®	Std	Std	Std	Std	Std	Std
SAP® Device Types	Std	Std	Std	Std	Std	Std
Cloud and Email Connectivity						
OneDrive®	Yes (C303WH) Std (C304WH)	Yes	Yes	-	-	-
SharePoint® Online	Yes (C303WH) Std (C304WH)	Yes	Yes	-	-	-
Microsoft Teams	-	-	-	-	-	-
Goggle Drive™	Yes (C303WH) Std (C304WH)	Yes	Yes	-	-	-
Box™	Yes	Yes	Yes	-	-	-
Dropbox	Yes	Yes	Yes	-	-	-
Exchange On-premises/Online (Microsoft 365™)	Std	Yes	Yes	-	-	-
Gmail™	Std	Yes	Yes	-	-	-
Citrix®						
Citrix Virtual Apps 7 2106 Environment	-	-	-	-	-	-
Citrix Virtual Apps 7 1912 LTSR Environment	-	Validated	Validated	Validated	Validated	Validated
Citrix XenApp 7.15 LTSR Environment	Validated	Validated	Validated	Validated	Validated	Validated
Healthcare Environment						
Cerner®	Validated	Validated	Validated	-	Validated	-
Epic*	Compatible*	Compatible*	Compatible*	Compatible*	Compatible*	Compatible*
Meditech Magic OS**	Compatible**	Compatible**	Compatible**	Compatible**	Compatible**	Compatible**

* Each Epic customer will have an employee trained as the Epic Technical Advisor. The Technical Advisor will approve print output device placements. ** Sharp MFPs that support PCL5. PCL 5c or PCL 5e are compatible with MEDITECH Magic OS.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A3 Monochrome**)

	BP-50M26/50M31/50M36/ 50M45/50M55/50M65	BP-70M31/70M36/ 70M45/70M55/70M65	BP-70M75/70M90	MX-M1056/M1206 (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS				
Speed	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	75/90 ppm	105/120 ppm
Sharp Administration Utility				
Printer Status Monitor	Yes	Yes	Yes	Yes
Sharp MFP Device Webpage (when DSK is installed, some user features are restricted)				
Device Status	Yes	Yes	Yes	Yes
SSL Secured Device Home Page Access	Yes	Yes	Yes	Yes
User Address Book (Local)	Yes	Yes	Yes	Yes
User Address Book (Global)	Yes	Yes	Yes	Yes
User Features				
Address Book Access	Yes	Yes	Yes	Yes
User Folder Setups (Document Filing)	Yes	Yes	Yes	Yes
Scan Destinations	Yes	Yes	Yes	Yes
Paper Tray Settings	Yes	Yes	Yes	Yes
Administrator Features				
Password Protected Access	Yes	Yes	Yes	Yes
Add Users	Yes	Yes	Yes	Yes
User Role (Admin, Users, etc.)	Yes	Yes	Yes	Yes
User/Group Access Control, Page Limit and Permissions	Yes	Yes	Yes	Yes
System, Network, Security, Application Energy Configuration	Yes	Yes	Yes	Yes
Email Notification Setting	Yes	Yes	Yes	Yes
Favorite Group Custom Setting	Yes	Yes	Yes	Yes
Energy/Toner Saving Mode	Yes	Yes	Yes	Yes
MFP Home Screen Customization	Yes	Yes	Yes	Yes
USB Device Support	Yes	Yes	Yes	Yes
Job Log	Yes	Yes	Yes	Yes
Audit/Event Log	Yes	Yes	Yes	Yes
Operation Manual Download	Yes	Yes	Yes	Yes

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A3 Monochrome**) *continued*

	BP-50M26/50M31/50M36/ 50M45/50M55/50M65	BP-70M31/70M36/ 70M45/70M55/70M65	BP-70M75/70M90	MX-M1056/M1206 (without Fiery option)
Sharp Remote Device Manager (SRDM)				
Device Web Page Access	Yes	Yes	Yes	Yes
Print Driver Distribution (Preconfigured)	Yes	Yes	Yes	Yes
Device Discovery	Yes	Yes	Yes	Yes
SNMP v3	Yes	Yes	Yes	Yes
Device Status	Yes	Yes	Yes	Yes
Meter Counts	Yes	Yes	Yes	Yes
Device Information Including Serial Number, Device Name, MAC address, etc.	Yes	Yes	Yes	Yes
Email Alert For Status Changes, Errors, Warnings and Maintenance Conditions	Yes	Yes	Yes	Yes
Power Management	Yes	Yes	Yes	Yes
Security Policy Management	Yes	Yes	Yes	Yes
Remote Operation Panel (in Simulation Mode)	Yes	Yes	Yes	Yes
Service Logs (22-6, 23-2)	Yes	Yes	Yes	Yes
Remote SIM Access	Yes	Yes	Yes	Yes
Firmware Version	Yes	Yes	Yes	Yes
Remote Firmware Updates (Scheduled)	Yes	Yes	Yes	Yes
Storage Backup (Address Book, User List, etc. Scheduled/On Demand)	Yes	Yes	Yes	Yes
Device Cloning (Scheduled/On Demand)	Yes	Yes	Yes	Yes
Toner Level Reporting				
1% Increments	Yes	Yes	Yes	Yes
5% Increments	Yes	Yes	Yes	Yes
25% Increments	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A4 Monochrome**)

	DX-B351PL/B352P	MX-B427W	MX-B427PW	MX-B467F	MX-B467P	MX-B557P/B707P	MX-B376WH/B476WH	MX-B557F
GENERAL MFP FEATURES/FUNCTIONS								
Speed	35 ppm	42 ppm	42 ppm	46 ppm	46 ppm	55/70 ppm	37/47 ppm	55 ppm
Sharp Administration Utility								
Printer Status Monitor	-	-	-	-	-	-	Yes	-
Sharp MFP Device Webpage (when DSK is installed, some user features are restricted)								
Device Status	-	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	Yes	DSK not avail.
SSL Secured Device Home Page Access	-	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	Yes	DSK not avail.
User Address Book (Local)	-	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	Yes	DSK not avail.
User Address Book (Global)	-	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	DSK not avail.	Yes	DSK not avail.
User Features								
Address Book Access	-	Yes	-	Yes	-	-	Yes	Yes
User Folder Setups (Document Filing)	-	Yes	-	Yes (via eSF app)	-	-	Yes	Yes (via eSF app)
Scan Destinations	-	Yes	-	Yes	-	-	Yes	Yes
Paper Tray Settings	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Administrator Features								
Password Protected Access	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Add Users	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Role (Admin, Users, etc.)	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User/Group Access Control, Page Limit and Permissions	-	-	-	Yes	Yes	Yes	Yes	Yes
System, Network, Security, Application Energy Configuration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Email Notification Setting	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Favorite Group Custom Setting	-	Yes	Yes	Yes	-	Yes	Yes	Yes
Energy/Toner Saving Mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MFP Home Screen Customization	-	-	-	-	-	-	Yes	-
USB Device Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Job Log	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audit/Event Log	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Operation Manual Download	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A4 Monochrome**) *continued*

	DX-B351PL/B352P	MX-B427W	MX-B427PW	MX-B467F	MX-B467P	MX-B557P/B707P	MX-B376WH/B476WH	MX-B557F
Sharp Remote Device Manager (SRDM)								
Device Web Page Access	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Print Driver Distribution (Preconfigured)	-	-	-	-	-	-	Yes	-
Device Discovery	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMP v3	-	-	-	-	-	-	Yes	-
Device Status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Meter Counts	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Device Information Including Serial Number, Device Name, MAC address, etc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Email Alert For Status Changes, Errors, Warnings and Maintenance Conditions	-	Select Features	Select Features	Select Features	Select Features	Select Features	Yes	Select Features
Power Management	-	-	-	-	-	-	Yes	-
Security Policy Management	-	-	-	-	-	-	Yes	-
Remote Operation Panel (in Simulation Mode)	-	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes	Yes (not SRDM)
Service Logs (22-6, 23-2)	-	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes	Yes (not SRDM)
Remote SIM Access	-	-	-	-	-	-	Yes	-
Firmware Version	-	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes	Yes (not SRDM)
Remote Firmware Updates (Scheduled)	-	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes	Yes (not SRDM)
Storage Backup (Address Book, User List, etc. Scheduled/On Demand)	-	-	-	-	-	-	Yes	-
Device Cloning	-	-	-	-	-	-	Yes	-
Toner Level Reporting								
1% Increments	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5% Increments	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25% Increments	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A3 Color**)

	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS				
Speed	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	70/80 ppm	70/80 ppm
Sharp Administration Utility				
Printer Status Monitor	Yes	Yes	Yes	Yes
Sharp MFP Device Webpage (when DSK is installed, some user features are restricted)				
Device Status	Yes	Yes	Yes	Yes
SSL Secured Device Home Page Access	Yes	Yes	Yes	Yes
User Address Book (Local)	Yes	Yes	Yes	Yes
User Address Book (Global)	Yes	Yes	Yes	Yes
User Features				
Address Book Access	Yes	Yes	Yes	Yes
User Folder Setups (Document Filing)	Yes	Yes	Yes	Yes
Scan Destinations	Yes	Yes	Yes	Yes
Paper Tray Settings	Yes	Yes	Yes	Yes
Administrator Features				
Password Protected Access	Yes	Yes	Yes	Yes
Add Users	Yes	Yes	Yes	Yes
User Role (Admin, Users, etc.)	Yes	Yes	Yes	Yes
User/Group Access Control, Page Limit and Permissions	Yes	Yes	Yes	Yes
System, Network, Security, Application Energy Configuration	Yes	Yes	Yes	Yes
Email Notification Setting	Yes	Yes	Yes	Yes
Favorite Group Custom Setting	Yes	Yes	Yes	Yes
Energy/Toner Saving Mode	Yes	Yes	Yes	Yes
MFP Home Screen Customization	Yes	Yes	Yes	Yes
USB Device Support	Yes	Yes	Yes	Yes
Job Log	Yes	Yes	Yes	Yes
Audit/Event Log	Yes	Yes	Yes	Yes
Operation Manual Download	Yes	Yes	Yes	Yes

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A3 Color**) *continued*

	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
Sharp Remote Device Manager (SRDM)				
Device Web Page Access	Yes	Yes	Yes	Yes
Print Driver Distribution (Preconfigured)	Yes	Yes	Yes	Yes
Device Discovery	Yes	Yes	Yes	Yes
SNMP v3	Yes	Yes	Yes	Yes
Device Status	Yes	Yes	Yes	Yes
Meter Counts	Yes	Yes	Yes	Yes
Device Information Including Serial Number, Device Name, MAC address, etc.	Yes	Yes	Yes	Yes
Email Alert For Status Changes, Errors, Warnings and Maintenance Conditions	Yes	Yes	Yes	Yes
Power Management	Yes	Yes	Yes	Yes
Security Policy Management	Yes	Yes	Yes	Yes
Remote Operation Panel (in Simulation Mode)	Yes	Yes	Yes	Yes
Service Logs (22-6, 23-2)	Yes	Yes	Yes	Yes
Remote SIM Access	Yes	Yes	Yes	Yes
Firmware Version	Yes	Yes	Yes	Yes
Remote Firmware Updates (Scheduled)	Yes	Yes	Yes	Yes
Storage Backup (Address Book, User List, etc. Scheduled/On Demand)	Yes	Yes	Yes	Yes
Device Cloning (Scheduled/On Demand)	Yes	Yes	Yes	Yes
Toner Level Reporting				
1% Increments	Yes	Yes	Yes	Yes
5% Increments	Yes	Yes	Yes	Yes
25% Increments	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (A4 Color)

	MX-C303WH/C304WH	MX-C357F	MX-C407F/C507F	MX-C407P	MX-C507P	MX-C607P
GENERAL MFP FEATURES/FUNCTIONS						
Speed	30 ppm	35 ppm	40/50 ppm	40 ppm	50 ppm	60 ppm
Sharp Administration Utility						
Printer Status Monitor	Yes	-	-	-	-	-
Sharp MFP Device Webpage (when DSK is installed, some user features are restricted)						
Device Status	Yes	DSK not avail	DSK not avail	DSK not avail	DSK not avail	DSK not avail
SSL Secured Device Home Page Access	Yes	DSK not avail	DSK not avail	DSK not avail	DSK not avail	DSK not avail
User Address Book (Local)	Yes	DSK not avail	DSK not avail	DSK not avail	DSK not avail	DSK not avail
User Address Book (Global)	Yes	DSK not avail	DSK not avail	DSK not avail	DSK not avail	DSK not avail
User Features						
Address Book Access	Yes	Yes	Yes	-	-	-
User Folder Setups (Document Filing)	Yes	Yes (via eSF app)	Yes (via eSF app)	-	-	-
Scan Destinations	Yes	Yes	Yes	-	-	-
Paper Tray Settings	Yes	Yes	Yes	Yes	Yes	Yes
Administrator Features						
Password Protected Access	Yes	Yes	Yes	Yes	Yes	Yes
Add Users	Yes	Yes	Yes	Yes	Yes	Yes
User Role (Admin, Users, etc.)	Yes	Yes	Yes	Yes	Yes	Yes
User/Group Access Control, Page Limit and Permissions	Yes	Yes	Yes	Yes	Yes	Yes
System, Network, Security, Application Energy Configuration	Yes	Yes	Yes	Yes	Yes	Yes
Email Notification Setting	Yes	Yes	Yes	Yes	Yes	Yes
Favorite Group Custom Setting	Yes	Yes	Yes	Yes	Yes	Yes
Energy/Toner Saving Mode	Yes	Yes	Yes	Yes	Yes	Yes
MFP Home Screen Customization	Yes	-	-	-	-	-
USB Device Support	Yes	Yes	Yes	Yes	Yes	Yes
Job Log	Yes	Yes	Yes	Yes	Yes	Yes
Audit/Event Log	Yes	Yes	Yes	Yes	Yes	Yes
Operation Manual Download	Yes	Yes	Yes	Yes	Yes	Yes

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Device Management Compatibility (**A4 Color**) *continued*

	MX-C303WH/C304WH	MX-C357F	MX-C407F/C507F	MX-C407P	MX-C507P	MX-C607P
Sharp Remote Device Manager (SRDM)						
Device Web Page Access	Yes	Yes	Yes	Yes	Yes	Yes
Print Driver Distribution (Preconfigured)	Yes	-	-	-	-	-
Device Discovery	Yes	Yes	Yes	Yes	Yes	Yes
SNMP v3	Yes	-	-	-	-	-
Device Status	Yes	Yes	Yes	Yes	Yes	Yes
Meter Counts	Yes	Yes	Yes	Yes	Yes	Yes
Device Information Including Serial Number, Device Name, MAC address, etc.	Yes	Yes	Yes	Yes	Yes	Yes
Email Alert For Status Changes, Errors, Warnings and Maintenance Conditions	Yes	Select features	Select features	Select features	Select features	Select features
Power Management	Yes	-	-	-	-	-
Security Policy Management	Yes	-	-	-	-	-
Remote Operation Panel (in Simulation Mode)	Yes	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)
Service Logs (22-6, 23-2)	Yes	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)
Remote SIM Access	Yes	-	-	-	-	-
Firmware Version	Yes	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)
Remote Firmware Updates (Scheduled)	Yes	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)	Yes (not SRDM)
Storage Backup (Address Book, User List, etc. Scheduled/On Demand)	Yes	-	-	-	-	-
Device Cloning	Yes	-	-	-	-	-
Toner Level Reporting						
1% Increments	Yes	Yes	Yes	Yes	Yes	Yes
5% Increments	Yes	Yes	Yes	Yes	Yes	Yes
25% Increments	Yes	Yes	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Monochrome**)

	MX-B376WH/B476WH	BP-50M26/50M31/ 50M36/50M45/50M55/50M65	BP-70M31/70M36/ 70M45/70M55/70M65	BP-70M75/70M90	MX-M1056/M1206
GENERAL MFP FEATURES/FUNCTIONS					
Speed	37/47 ppm	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	75/90 ppm	105/120 ppm
Hard Disk Drive/Solid State Drive	Std HDD (500 GB)	Std SSD (128 GB)	Std SSD (256 GB)	Std SSD (256 GB)	Std HDD (1 TB)
Data Security Kit (DSK) & Common Criteria Certification					
Data Security Kit (optional)	MX-FR63U	BP-FR12UL	BP-FR12UL	BP-FR12UL	MX-FR66U
Common Criteria Certification (HCD PP v1.0)	-	Yes	Yes	Yes	-
Data and Information Security					
Data Overwrite (Auto)	Up to 10 times	Std	Std	Std	Up to 10 times
Data Overwrite (Manual)	Yes	Yes	Yes	Yes	Yes
Data Overwrite At Power-up	Yes	Yes	Yes	Yes	Yes
Custom Overwrite Pattern	User settable, DoD5220.22-M preset	-	-	-	User settable, DoD5220.22-M preset
256-bit Data Encryption	Std	Std	Std	Std	Std
End-of-Lease Data Erase	Std	Std	Std	Std	Std
Trusted Platform Module (TPM)	Yes	Std	Std	Std	Yes
BIOS Integrity Check at Startup	-	Std	Std	Std	-
Intrusion Detection	-	Std	Std	Std	-
Application Whitelisting	Std	Std	Std	Std	Std
Firmware Attack Prevention & Self Recovery	Std	Std	Std	Std	Std
Virus Detection Kit option (powered by Bitdefender)	-	Yes	Yes	Yes	-
Access Control Security					
User Authentication (Local Address Book)	Std	Std	Std	Std	Std
User Authentication (LDAP)	Std	Std	Std	Std	Std
User Authentication (Active Directory)	Std	Std	Std	Std	Std
Group Authorization	Std	Std	Std	Std	Std
Page Limit Control	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	Std	Std	Std	Std	Std
Restrict List Printing	Yes	Yes	Yes	Yes	Yes
Scan To Home Directory	Std	Std	Std	Std	Std
Scan Only To Logged-in User's Email	Std	Std	Std	Std	Std
Disable Destination Method Selection	Std	Std	Std	Std	Std
Disable Address Book Registration	Std	Std	Std	Std	Std
Receipt Rejection From Specified User(s)	Std	Std	Std	Std	Std
Lock Users After 3 Tries	Std	Std	Std	Std	Std
USB Card Reader Support	Std	Std	Std	Std	Std

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Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Monochrome**) *continued*

	MX-B376WH/B476WH	BP-50M26/50M31/ 50M36/50M45/50M55/50M65	BP-70M31/70M36/ 70M45/70M55/70M65	BP-70M75/70M90	MX-M1056/M1206
Network Security					
Active Directory (AD) Integration	Std	Std	Std	Std	Std
TLS Encryption	Std (v.1.2)	Std (v.1.3)	Std (v.1.3)	Std (v.1.3)	Std (v.1.2)
2048 Certificate	Std	Std	Std	Std	Yes
Security AD Policy	Yes	Yes	Yes	Yes	Yes
SNMP v3 Support	Std	Std	Std	Std	Std
SNMP Community String Support	Std	Std	Std	Std	Std
Kerberos	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std
Device Certificates	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std
MAC Address Filtering	Std	Std	Std	Std	Std
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std
CSRF Measure	Std	Std	Std	Std	Std
Admin Password Protection*	Std	Std	Std	Std	Std
IEEE 802.1X	Std	Std	Std	Std	Std
SHA-2	Std	Std	Std	Std	Std
S/MIME	Std	Std	Std	Std	Std
Fax Security (Fax Option May Be Required)					
Separation Between Fax and Network	Std	Std	Std	Std	Std
Confidential Fax	Std	Std	Std	Std	Std
Filter Junk Fax	Std	Std	Std	Std	Std
Document Security					
Job Status Display Only Logged-in User	Std	Std	Std	Std	Std
Secure Pull Print FTP/SMB	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	Std	Std	Std	Std	Std
Serverless Print Release	Std	Std	Std	Std	Std
Encrypted PDF Transmission	Std	Std	Std	Std	Std
Encrypted PDF Direct Printing	Std	Std	Std	Std	Std
Hidden Security Pattern Print	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Detection	Yes	Yes	Yes	Yes	Yes
Audit Trail and Other Security					
Job Log and Usage Tracking	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	Std	Std	Std	Std	Std
Digitally Signed Firmware	Std	Std	Std	Std	Std

* Admin password can be protected when a Sharp MFP is accessed from FTP, preventing password leakage.

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Color**)

	MX-C303WH/C304WH	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS					
Speed	30 ppm	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	70/80 ppm	70/80 ppm
Hard Disk Drive/Solid State Drive	Std HDD (500 GB)	Std SSD (128 GB)	Std SSD (256 GB)	Std HDD (1 TB)	Std HDD (1 TB)
Data Security Kit (DSK) & Common Criteria Certification					
Data Security Kit (optional)	MX-FR61U	BP-FR12UL	BP-FR12UL	MX-FR55U	MX-FR58U
Common Criteria Certification (HCD PP v1.0)	Pending	Yes	Yes	-	-
Data and Information Security					
Data Overwrite (Auto)	Up to 10 times	Std	Std	Up to 10 times	Up to 10 times
Data Overwrite (Manual)	Yes	Yes	Yes	Yes	Yes
Data Overwrite At Power-up	Yes	Yes	Yes	Yes	Yes
Custom Overwrite Pattern	User settable, DoD5220.22-M preset	-	-	User settable, DoD5220.22-M preset	User settable, DoD5220.22-M preset
256-bit Data Encryption	Std	Std	Std	Std	Std
End-of-Lease Data Erase	Std	Std	Std	Std	Std
Trusted Platform Module (TPM)	Yes	Std	Std	Yes	Yes
BIOS Integrity Check at Startup	-	Std	Std	-	-
Intrusion Detection	-	Std	Std	Std	-
Application Whitelisting	Std	Std	Std	Std	-
Firmware Attack Prevention & Self Recovery	Std	Std	Std	Std	-
Virus Detection Kit option (powered by Bitdefender)	-	Yes	Yes	-	-
Access Control Security					
User Authentication (Local Address Book)	Std	Std	Std	Std	Std
User Authentication (LDAP)	Std	Std	Std	Std	Std
User Authentication (Active Directory)	Std	Std	Std	Std	Std
Group Authorization	Std	Std	Std	Std	Std
Page Limit Control	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	Std	Std	Std	Std	Std
Restrict List Printing	Yes	Yes	Yes	Yes	Yes
Scan To Home Directory	Std	Std	Std	Std	Std
Scan Only To Logged-in User's Email	Std	Std	Std	Std	Std
Disable Destination Method Selection	Std	Std	Std	Std	Std
Disable Address Book Registration	Std	Std	Std	Std	Std
Receipt Rejection From Specified User(s)	Std	Std	Std	Std	Std
Lock Users After 3 Tries	Std	Std	Std	Std	Std
USB Card Reader Support	Std	Std	Std	Std	Std

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Items indicated with "Yes" in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility (**Color**) *continued*

	MX-C303WH/C304WH	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
Network Security					
Active Directory Integration	Std Group Policy	Std Group Policy	Std Group Policy	Std	Std
TLS Encryption	Std	Std	Std	Std	Std
2048 Certificate	Std	Std	Std	Std	Std
Security AD Policy	Yes	Yes	Yes	Yes	-
SNMP v3 Support	Std	Std	Std	Std	Std
SNMP Community String Support	Std	Std	Std	Std	Std
Kerberos	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std
Device Certificates	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std
MAC Address Filtering	Std	Std	Std	Std	Std
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std
CSRF Measure	Std	Std	Std	Std	Std
Admin Password Protection*	Std	Std	Std	Std	Std
IEEE 802.1X Support	Std	Std	Std	Std	Std
SHA-2	Std	Std	Std	Std	Std
S/MIME	Std	Std	Std	Std	Std
Fax Security (Fax Option May Be Required)					
Separation Between Fax and Network	Std	Std	Std	Std	Std
Confidential Fax	Std	Std	Std	Std	Std
Filter Junk Fax	Std	Std	Std	Std	Std
Document Security					
Job Status Display Only Logged-in User	Std	Std	Std	Std	Std
Secure Pull Print FTP/SMB	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	Std	Std	Std	Std	Std
Serverless Print Release	Std	Std	Std	Std	Std
Encrypted PDF Transmission	Std	Std	Std	Std	Std
Encrypted PDF Direct Printing	Std	Std	Std	Std	Std
Hidden Security Pattern Print	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Detection	Yes	Yes	Yes	Yes	Yes
Audit Trail and Other Security					
Job Log and Usage Tracking	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	Std	Std	Std	Std	Std
Digitally Signed Firmware	Std	Std	Std	Yes	Yes

* Admin password can be protected when a Sharp MFP is accessed from FTP, preventing password leakage. ** Only supports the file without a password.

Items indicated with "Yes" in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility

	MX-B427PW	MX-B427W	MX-B467P	MX-B467F	MX-B557P/ B707P	MX-B557F	MX-C357F	MX-C407F	MX-C507F	MX-C407P	MX-C507P	MX-C607P
GENERAL MFP FEATURES/FUNCTIONS												
Speed	42 ppm	42 ppm	46 ppm	46 ppm	55/70 ppm	55 ppm	35 ppm	40 ppm	50 ppm	40 ppm	50 ppm	60 ppm
Hard Disk Drive (HDD)	-	-	-	500 GB (option)	500 GB (option)	500 GB (Std)	500 GB (option)	500 GB (option)	500 GB (Std)	500 GB (option)	500 GB (option)	500 GB (option)
Data Security Kit (DSK) & Common Criteria Certification												
Data Security Kit (optional)	-	-	-	-	-	-	-	-	-	-	-	-
Common Criteria Certification	-	-	-	-	-	-	-	-	-	-	-	-
Data and Information Security												
Data Overwrite (Auto)	Yes (DRAM only)	Yes (DRAM only)	Yes (DRAM only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Overwrite (Manual)	Yes (NVRAM only)	Yes (NVRAM only)	Yes (NVRAM only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Overwrite (Scheduled)	-	-	-	-	-	-	-	-	-	-	-	-
Data Overwrite (1, 3 or 7 times)	-	-	-	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
Custom Overwrite Pattern (complies with DoD)	-	-	-	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
256-bit Data Encryption	-	-	-	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes	Yes (with opt. HDD)	Yes (with opt. HDD)	Yes (with opt. HDD)
Out of Service Data Erase (End-of-Lease)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure Element Feature (similar to TPM)	-	-	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Application Whitelisting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure Boot (similar to Firmware Attack Prevention)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Continuous Integrity Check	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Access Control Security												
User Authentication (Local Address Book)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
User Authentication (LDAP)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
User Authentication (Active Directory)	-	-	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Password Protected Access To Device Web Page	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Group Authorization	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Page Limit Control (with Device Quota app)	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Restrict Color Printing (Permissions setting)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Restrict List Printing	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Scan To Home Directory (with Scan Center app)	-	-	-	Yes	-	Yes	Yes	Yes	-	-	-	-
Scan Only To Logged-in User's Email	-	-	-	Yes	-	Yes	Yes	Yes	-	-	-	-
Disable Destination Method Selection	-	-	-	-	-	-	-	-	-	-	-	-
Disable Address Book Registration	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Lock Out After Failed Login Attempts (panel)	1-10 attempts	1-10 attempts	1-10 attempts	1-10 attempts	1-10 attempts	1-10 attempts	1-10 attempts	1-10 attempts	1-10 tattempts	1-10 attempts	1-10 attempts	1-10 attempts
User Lock Out Time (panel)	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes
User Lock Out Time (webpage)	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes	1-60 minutes

continued on next page...

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp Security Suite Compatibility *continued*

	MX-B427PW	MX-B427W	MX-B467P	MX-B467F	MX-B557P/ B707P	MX-B557F	MX-C357F	MX-C407F	MX-C507F	MX-C407P	MX-C507P	MX-C607P
Network Security												
Active Directory Integration	As a printer	As a printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer	As printer
TLS Encryption	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
2048-bit Certificate	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Security Policy Management	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SNMP v3 Support	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SNMP Community String Support	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Kerberos	-	-	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Secure SMTP server (HTTPS)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IPv6 and IPsec	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Device Certificates	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Configurable CA Certificate	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IP Address Filtering	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
MAC Address Filtering	-	-	-	-	-	-	-	-	-	-	-	-
Port Control (Disable/Enable Ports)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
CSRF (Cross Site Request Forgery) Counter Measure	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Admin Password Protection	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
IEEE 802.1X	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
SHA-2 Secure Hash Algorithm	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
S/MIME Public Key Encryption	-	-	-	-	-	-	-	-	-	-	-	-
Fax Security (Fax Option May be Required)												
Separation Between Fax and Network	Std	-	-	Std	-	Std	Std	Std	Std	-	-	-
Confidential Fax/Filter Junk Fax	Std	-	-	Std	-	Std	Std	Std	Std	-	-	-
Document Security												
Job Status Display Only Logged-in User	-	-	-	-	-	-	-	-	-	-	-	-
Secure Pull Print FTP/SMB	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Secure Print Release With a PIN Number	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Serverless Print Release	-	-	-	-	-	-	-	-	-	-	-	-
Encrypted PDF Transmission	-	-	-	-	-	-	-	-	-	-	-	-
Encrypted PDF Direct Printing	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hidden Security Pattern Print	-	-	-	-	-	-	-	-	-	-	-	-
Hidden Security Pattern Detection	-	-	-	-	-	-	-	-	-	-	-	-
Audit Trail and Other Security												
Job Log and Usage Tracking	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Admin Audit Tracking (SIEM and Syslog Integration)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Configurable Device Identify Certificate	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Digitally Signed Firmware	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Restrict Firmware Update on device	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Disable physical ports (USB, parallel, etc.)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp OSA Technology and Application Compatibility (**Monochrome**)

	MX-B376WH/B476WH	BP-50M26/50M31/ 50M36/50M45/50M55/50M65	BP-70M31/70M36/ 70M45/70M55/70M65	BP-70M75/70M90	MX-M1056/M1206 (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS					
Speed (PPM)	37/47 ppm	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	75/90 ppm	105/120 ppm
LCD Display - Color Touchscreen	7.0"	10.1"	10.1"	10.1"	15.4"
Screen Formats	Wide SVGA	Wide SVGA	Wide SVGA	Wide SVGA	Wide XGA
Latest Sharp OSA Platform Version	V5.5	V6	V6	V6	V5.5
SHARP OSA TECHNOLOGY SUPPORT					
General Features for Sharp OSA Applications					
Custom User Interface - HTML Browser	Yes	-	-	-	Yes
Custom User Interface - HTML 5 Browser (N2.0)	Yes	-	-	-	Yes
Custom User Interface - HTML 5 Browser (BE)	-	Yes	Yes	Yes	-
Sharp OSA Trial Mode (Scan)	Yes	Yes	Yes	Yes	Yes
Extended SDK (ACM)/(EAM)	Yes	Yes	Yes	Yes	Yes
Embedded Sharp OSA Platform	Yes	Yes	Yes	Yes	Yes
EA Single Sign-on To ACM Applications	Yes	Yes	Yes	Yes	Yes
EA Single Sign-on To MFP	Yes	Yes	Yes	Yes	-
Application Communication Module (ACM) MX-AMX2L/BP-AM10L	Standard	Option	Standard	Standard	Standard
Scan API	Yes	Yes	Yes	Yes	Yes
Scan Image Preview	Yes	Yes	Yes	Yes	Yes
Print API	Yes	Yes	Yes	Yes	Yes
Copy API, Fax API, Document Filing API	Yes	Yes	Yes	Yes	Yes
OCR API	Yes	Yes	Yes	Yes	Yes
Access To Microsoft Office File Direct Printing	Yes	Yes	Yes	Yes	Yes
Access To Serverless Print Release	Yes	Yes	Yes	Yes	Yes
Access To Cloud Connect (Google Drive, OneDrive, SharePoint Online)	Yes	Yes	Yes	Yes	Yes
Copy/Fax/Document Filing Image Preview	Yes	Yes	Yes	Yes	Yes
Access Card Support	Yes	Yes	Yes	Yes	Yes
Access To AD Resources	Yes	Yes	Yes	Yes	-
External Account Module (EAM) MX-AMX3L/BP-AM11L	Standard	Option	Standard	Standard	Standard
Authentication	Yes	Yes	Yes	Yes	Yes
Track Total Pages For Copy, Print, Scan and Fax Jobs	Yes	Yes	Yes	Yes	Yes
Track Pages By Page Size and Color For All Jobs	Yes	Yes	Yes	Yes	Yes
Access Control/Limit Number Of Pages Per User	Yes	Yes	Yes	Yes	Yes
Offline Mode	Yes	Yes	Yes	Yes	Yes
Access Card Support	Yes	Yes	Yes	Yes	Yes
Override Login	Yes	Yes	Yes	Yes	Yes
Active Directory Integration (access to AD resource, MFP joins domain)	Yes	Yes	Yes	-	-
APPLICATION COMPATIBILITY					
Synappx Go Free MFP	Yes	Yes	Yes	Yes	Yes
AIP Connect	Yes	Yes	Yes	Yes	Yes
Kayleigh Job Accounting Software	Yes	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Sharp OSA Technology and Application Compatibility (**Color**)

	MX-C303WH/C304WH	BP-50C26/50C31/ 50C36/50C45/50C55/50C65	BP-70C31/70C36/ 70C45/70C55/70C65	MX-7081/8081 (without Fiery option)	MX-7090N/8090N (without Fiery option)
GENERAL MFP FEATURES/FUNCTIONS					
Speed	30 ppm	26/31/36/45/55/65 ppm	31/36/45/55/65 ppm	70/80 ppm	70/80 ppm
LCD Display - Color Touchscreen	7.0"	10.1"	10.1"	10.1"	15.4"
Screen Formats	Wide VGA	Wide SVGA	Wide SVGA	Wide SVGA	Wide SVGA
Sharp OSA Platform Version	V5.5 Lite	V6	V6	V5.5	V5.1
SHARP OSA TECHNOLOGY SUPPORT					
General Features for Sharp OSA Applications (ACM or EAM)					
Custom User Interface - HTML Browser	Yes	-	-	Yes	Yes
Custom User Interface - HTML 5 Browser (N2.0)	Yes	-	-	Yes	Yes
Custom User Interface - HTML 5 Browser (BE)	-	Yes	Yes	-	-
Sharp OSA Trial Mode (Scan)	Yes	Yes	Yes	Yes	Yes
Extended SDK (ACM)/(EAM)	Yes	Yes	Yes	Yes	Yes
Embedded Sharp OSA Platform	Yes	Yes	Yes	Yes	Yes
EA Single Sign-on To ACM Applications	Yes	Yes	Yes	Yes	Yes
EA Single Sign-on To MFP	Yes	Yes	Yes	-	Yes
Application Communication Module (ACM) MX-AMX2L/BP-AM10L	MX-C303WH Option, MX-C304WH Standard	Option	Standard	Standard	Standard
Scan API	Yes	Yes	Yes	Yes	Yes
Scan Image Preview	Yes	Yes	Yes	Yes	Yes
Print API	Yes	Yes	Yes	Yes	Yes
Copy API, Fax API, Document Filing API	Yes	Yes	Yes	Yes	Yes
OCR API	Yes	Yes	Yes	Yes	Yes
Access To Microsoft Office File Direct Printing	Yes	Yes	Yes	Yes	Yes
Access To Serverless Print Release	Yes	Yes	Yes	Yes	Yes
Access To Cloud Connect (Google Drive, OneDrive, SharePoint Online)	Yes	Yes	Yes	Yes	Yes
Copy/Fax/Document Filing Image Preview	Yes	Yes	Yes	Yes	Yes
Access Card Support	Yes	Yes	Yes	Yes	Yes
Access To AD Resources	Yes	Yes	Yes	-	Yes
External Account Module (EAM) MX-AMX3L/BP-AM11L	Standard	Option	Standard	Standard	Standard
Authentication	Yes	Yes	Yes	Yes	Yes
Track Total Pages For Copy, Print, Scan and Fax Jobs	Yes	Yes	Yes	Yes	Yes
Track Pages By Page Size and Color For All Jobs	Yes	Yes	Yes	Yes	Yes
Access Control/Limit Number Of Pages Per User	Yes	Yes	Yes	Yes	Yes
Offline Mode	Yes	Yes	Yes	Yes	Yes
Access Card Support	Yes	Yes	Yes	Yes	Yes
Override Login	Yes	Yes	Yes	Yes	Yes
Active Directory Integration (access to AD resource, MFP joins domain)	Yes	Yes	Yes	-	-
APPLICATION COMPATIBILITY					
Synappx Go Free MFP	Yes	Yes	Yes	Yes	Yes
AIP Connect	Yes	Yes	Yes	Yes	Yes
Kayleigh Job Accounting Software	Yes	Yes	Yes	Yes	Yes

Items indicated with “Yes” in the table above may require additional options or software downloads.

Desktop L-Series Application Compatibility

	MX-B427PW	MX-B467P	MX-B557P/ B707P	MX-B427W	MX-B467F	MX-B557F	MX-C407P	MX-C507P	MX-C607P	MX-C357F	MX-C407F	MX-C507F
NATIVE APPLICATIONS												
Email to Self	-	-	-	Std*** (E-mail Shortcut)	Std	Std	-	-	-	Std	Std	Std
Fax Forward	-	-	-	Std***	Std	Std	-	-	-	Std	Std	Std
Forms & Favorites/Bookmarks	-	-	Std	Std*** (Network/FTP)	Std	Std	Std	Std	Std	Std	Std	Std
Built-in Applications												
AccuRead OCR	-	-	-	-	Opt (HDD)*	Std	-	-	-	Opt (HDD)*	Opt (HDD)*	Std
Card Copy	-	-	-	Std***	Std	Std	-	-	-	Std	Std	Std
Display Customization	-	-	Std	-	Std	Std	Std	Std	Std	Std	Std	Std
Scan Center - Basic	-	-	-	-	Std	Std	-	-	-	Std	Std	Std
Shortcut Center	-	-	-	Std***	Std	Std	-	-	-	Std	Std	Std
Eco Settings	Std	Std	Std	Std***	Std	Std	Std	Std	Std	Std	Std	Std
Customer Support	-	-	Std	-	Std	Std	Std	Std	Std	Std	Std	Std
QR Code Generator	-	-	Std	-	Std	Std	Std	Std	Std	Std	Std	Std
Device Quota	-	-	Opt (HDD)	-	Opt (HDD)	Std	Opt (HDD)	Opt (HDD)	Opt (HDD)	Opt (HDD)	Opt (HDD)	Std
Add-on Applications												
Cloud Connector	-	-	Std	Std***	Std	Std	Std	Std	Std	Std	Std	Std
Scan Center - Premium	-	-	-	-	Opt (HDD)	Std	-	-	-	Opt (HDD)	Opt (HDD)	Std
Bar Code Discovery	-	-	-	-	Opt (HDD)	Std	-	-	-	Opt (HDD)	Opt (HDD)	Std
Scan to SharePoint	-	-	-	-	Std	Std	-	-	-	Std	Std	Std
Accessibility Solution	-	-	Std	-	Std	Std	Std	Std	Std	Std	Std	Std
Solution Composer	-	-	Std**	-	Std**	Std	Std**	Std**	Std**	Std**	Std**	Std
Scan to Hard Disk	-	-	-	-	Opt (HDD)	Std	-	-	-	Opt (HDD)	Opt (HDD)	Std
Card Authentication	-	-	Std	-	Std	Std	Std	Std	Std	Std	Std	Std

*License fee required. **Some features require HDD depending on workflow. *** Native device functions on machine, not an application.

Items indicated with “Yes” in the table above may require additional options or software downloads.

NOTES AND PROVISIONS

1. The number of connectable mobile devices depends on the host OS and the accompanying Windows End-User License Agreement: Windows 7: Max. 20; Windows 8/8.1, Windows 10: Max. 50. OS requirements (as of November 2015): Host: Windows 7, Windows 8/8.1, Windows 10; Client: Windows 7, Windows 8/8.1, Windows 10, OS X v10.7–10.14, Android 4.4 and above, iOS 6.0 - 12 Connecting 26 or more mobile devices requires at least two LAN access points.

2. Kmetz, Keith, "Mobile Devices and Print/Scan/Document Opportunities," 2015.

3. Available on select MFPs, please refer to the device compatibility page to view supported MFP models.

4. The Cloud Connect feature, scan file conversion to Microsoft Office files and searchable PDFs are available on select MFPs. Optional direct print extension kit may be required to print Microsoft Office files. Please refer to the device compatibility page to view supported MFP models.

5. Encryption level and security features vary per model. Please see the Security Compatibility Charts for more details.

6. Some features not available on all models.

7. Data Security Kit (DSK) feature.

8. Please refer to the Sharp OSA compatibility page to view supported MFP models.

9. Visit sharpusa.com/partners for the most recent product version validated and the list of supported MFPs.

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Proposal Form 3

Certifications and Licenses

PROPOSAL FORM 3: CERTIFICATIONS AND LICENSES

Provide a copy of all current licenses, registrations and certifications issued by federal, state and local agencies, and any other licenses, registrations or certifications from any other governmental entity with jurisdiction, allowing Respondent to perform the covered services including, but not limited to licenses, registrations or certifications. M/WBE, HUB, DVBE, small and disadvantaged business certifications and other diverse business certifications, as well as manufacturer certifications for sales and service must be included if applicable.

Certification **1013**

CERTIFICATE OF EMPLOYEE INFORMATION REPORT **RENEWAL**

This is to certify that the contractor listed below has submitted an Employee Information Report pursuant to N.J.A.C. 17:27-1.1 et. seq. and the State Treasurer has approved said report. This approval will remain in effect for the period of **15-May-2023** to **15-May-2026**

SHARP ELECTRONICS CORPORATION

100 PARAGON DR.

MONTVALE **NJ** **07645**

ELIZABETH MAHER MUOIO
State Treasurer

ISO 9001
Management System Certificate

Certificate Number : JMI-0015

Organization :

SHARP CORPORATION
SMART BUSINESS SOLUTIONS BUSINESS UNIT
492 MINOSHO-CHO, YAMATOKORIYAMA-SHI, NARA, JAPAN

JQA certifies that the above organization operates the Quality Management System, within the scope of the Appendix attached, which has been assessed and found to comply with the requirements of;

ISO 9001 :2015 / JIS Q 9001 :2015

MS
CM009

091

Registration Date : May 20, 1992
Last Renewal Date : June 18, 2022

Expiry Date : June 17, 2025

Feel free to contact JQA for the validity of this certificate.

N. Kobayashi

NORIAKI KOBAYASHI
PRESIDENT
1-25 KANDASUDACHO, CHIYODA-KU, TOKYO, JAPAN

JAPAN QUALITY ASSURANCE ORGANIZATION

To be used in conjunction with attached Appendix.

Partner of IQNet

21.02 D7501128E

ISO 9001
Appendix

Certificate Number : JMI-0015

Organization :

SHARP CORPORATION
SMART BUSINESS SOLUTIONS BUSINESS UNIT

Scope of Registration:

THE DESIGN / DEVELOPMENT, MANUFACTURE AND SERVICE SUPPORT OF THE FOLLOWING PRODUCTS:
1) PHOTOCOPIERS, SCANNERS, PRINTERS AND MULTIFUNCTION EQUIPMENT, AND TONER, DEVELOPER, DRUM, AND PERIPHERAL EQUIPMENT
2) PHOTOCATALYST AND APPLIED PRODUCTS
3) SYSTEM EQUIPMENT (POS, ECR, HANDY TERMINAL, CARD READER, ETC.) AND PERIPHERAL EQUIPMENT
4) CLEANSING SYSTEMS, CONTROL COMPONENTS (PLC, NETWORK CAMERA) AND PERIPHERAL EQUIPMENT
5) LIQUID CRYSTAL COLOR MONITORS/DISPLAYS (INCLUDING UNITS), PROJECTOR AND PERIPHERAL EQUIPMENT
NOTE: THE SERVICE SUPPORT: PREPARATION OF SERVICING DATA AND TRAINING OF SERVICE PERSONNEL

Registration Date : May 20, 1992
Last Renewal Date : June 18, 2022

Expiry Date : June 17, 2025

N. Kobayashi

NORIAKI KOBAYASHI
PRESIDENT

Feel free to contact JQA for the validity of this certificate.

JAPAN QUALITY ASSURANCE ORGANIZATION

This Appendix is an integral part of the Certificate and should only be used in conjunction with the Certificate.

Partner of IQNet

ISO 14001
Management System Certificate

Certificate Number : JQA-EM6192

Organization :

SHARP CORPORATION

SMART BUSINESS SOLUTIONS BUSINESS UNIT

492 MINOSHO-CHO, YAMATOKORIYAMA-SHI, NARA, JAPAN

JQA certifies that the above organization operates the Environmental Management System, within the scope of the Appendix attached, which has been assessed and found to comply with the requirements of;

ISO 14001 :2015 / JIS Q 14001 :2015

Registration Date : September 12, 2008
Last Renewal Date : June 18, 2022

Expiry Date : June 17, 2025

Feel free to contact JQA for the validity of this certificate.

N. Kobayashi

NORIAKI KOBAYASHI
PRESIDENT
1-25 KANDASUDACHO, CHIYODA-KU, TOKYO, JAPAN

JAPAN QUALITY ASSURANCE ORGANIZATION

To be used in conjunction with attached Appendix.

Partner of IQNet

21.02 D7501177E

MS CM009

091

ISO 14001
Appendix

Certificate Number : JQA-EM6192

Organization :

SHARP CORPORATION
SMART BUSINESS SOLUTIONS BUSINESS UNIT

Scope of Registration:

1) THE DESIGN / DEVELOPMENT, MANUFACTURE AND SERVICE SUPPORT OF PHOTOCOPIERS, SCANNERS, PRINTERS AND MULTIFUNCTION EQUIPMENT, AND TONER, DEVELOPER, DRUM
2) THE DESIGN / DEVELOPMENT AND MANUFACTURE OF PHOTOCATALYST, AND DESIGN / DEVELOPMENT OF APPLIED PRODUCTS
3) THE DESIGN / DEVELOPMENT, MANUFACTURING SUPPORT AND SERVICE SUPPORT OF SYSTEM EQUIPMENT (POS, ECR, HANDY TERMINAL, CARD READER, ETC.) AND PERIPHERAL EQUIPMENT
4) THE DESIGN / DEVELOPMENT AND MANUFACTURE OF CLEANSING SYSTEMS, CONTROL COMPONENTS, AUTOMATIC CONVEYING, AND PERIPHERAL EQUIPMENT
5) THE DESIGN / DEVELOPMENT AND MANUFACTURE OF AUTOMATION AND LABOR-SAVINGS EQUIPMENT
6) THE DESIGN / DEVELOPMENT, MANUFACTURE AND SERVICE SUPPORT OF LIQUID CRYSTAL COLOR MONITORS/DISPLAYS (INCLUDING UNITS), PROJECTOR AND THE DESIGN / DEVELOPMENT, MANUFACTURING SUPPORT AND SERVICE SUPPORT OF PERIPHERAL EQUIPMENT

NOTE: THE SERVICE SUPPORT: PREPARATION OF SERVICING DATA AND TRAINING OF SERVICE PERSONNEL

Registration Date : September 12, 2008
Last Renewal Date : June 18, 2022

Expiry Date : June 17, 2025

N. Kobayashi

NORIAKI KOBAYASHI
PRESIDENT

Feel free to contact JQA for the validity of this certificate.

JAPAN QUALITY ASSURANCE ORGANIZATION

This Appendix is an integral part of the Certificate and should only be used in conjunction with the Certificate.

Partner of IQNet

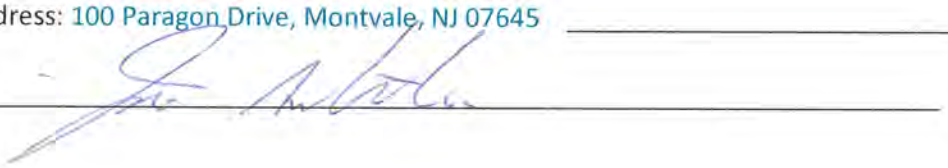
PROPOSAL FORM 4: CLEAN AIR WATER ACT

I, the Vendor, am in compliance with all applicable standards, orders or regulations issued pursuant to the Clean Air Act of 1970, as Amended (42 U.S. C. 1857 (h), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15 as required under OMB Circular A-102, Attachment O, Paragraph 14 (1) regarding reporting violations to the grantor agency and to the United States Environment Protection Agency Assistant Administrator for the Enforcement.

Potential Vendor: Sharp Electronics Corporation

Title of Authorized Representative: Chairman, President & CEO, Sharp Electronics Corporation

Mailing Address: 100 Paragon Drive, Montvale, NJ 07645

Signature: 

PROPOSAL FORM 5: DEBARMENT NOTICE

I, the Vendor, certify that my company has not been debarred, suspended or otherwise ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension", as described in the Federal Register and Rules and Regulations.

Potential Vendor: Sharp Electronics Corporation _____

Title of Authorized Representative: Chairman, President & CEO, Sharp Electronics Corporation

Mailing Address: 100 Paragon Drive, Montvale, NJ 07645

Signature: _____

PROPOSAL FORM 6: LOBBYING CERTIFICATION

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by Section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The undersigned certifies, to the best of his/her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all covered sub-awards exceeding $100,000 in Federal funds at all appropriate tiers and that all sub-recipients shall certify and disclose accordingly.

Signature of Respondent

August 30, 2024
Date

PROPOSAL FORM 7: CONTRACTOR CERTIFICATION REQUIREMENTS

Contractor's Employment Eligibility

By entering the contract, Contractor warrants compliance with the Federal Immigration and Nationality Act (FINA), and all other federal and state immigration laws and regulations. The Contractor further warrants that it is in compliance with the various state statutes of the states it will operate this contract in.

Participating Government Entities including School Districts may request verification of compliance from any Contractor or subcontractor performing work under this Contract. These Entities reserve the right to confirm compliance in accordance with applicable laws.

Should the Participating Entities suspect or find that the Contractor or any of its subcontractors are not in compliance, they may pursue any and all remedies allowed by law, including, but not limited to: suspension of work, termination of the Contract for default, and suspension and/or debarment of the Contractor. All costs necessary to verify compliance are the responsibility of the Contractor.

The Respondent complies and maintains compliance with the appropriate statutes which requires compliance with federal immigration laws by State employers, State contractors and State subcontractors in accordance with the E-Verify Employee Eligibility Verification Program.

Contractor shall comply with governing board policy of the Region 10 ESC Participating entities in which work is being performed.

Fingerprint & Criminal Background Checks

If required to provide services on school district property at least five (5) times during a month, contractor shall submit a full set of fingerprints to the school district if requested of each person or employee who may provide such service. Alternately, the school district may fingerprint those persons or employees. An exception to this requirement may be made as authorized in Governing Board policy. The district shall conduct a fingerprint check in accordance with the appropriate state and federal laws of all contractors, subcontractors or vendors and their employees for which fingerprints are submitted to the district. Contractor, subcontractors, vendors and their employees shall not provide services on school district properties until authorized by the District.

The Respondent shall comply with fingerprinting requirements in accordance with appropriate statutes in the state in which the work is being performed unless otherwise exempted.

Contractor shall comply with governing board policy in the school district or Participating Entity in which work is being performed.

Signature of Respondent

August 30, 2024
Date

PROPOSAL FORM 8: ANTITRUST CERTIFICATION STATEMENTS
(Tex. Government Code § 2155.005)

I affirm under penalty of perjury of the laws of the State of Texas that:

(1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;

(2) In connection with this proposal, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;

(3) In connection with this proposal, neither I nor any representative of the Company has violated any federal antitrust law; and

(4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this proposal to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

VENDOR Sharp Electronics Corporation

ADDRESS 100 Paragon Drive
Montvale, NJ 07645

PHONE 201-529-8200

FAX

RESPONDANT

Signature

Jun Ashida
Printed Name

Chairman, President & CEO, SEC
Position with Company

AUTHORIZING OFFICIAL

Signature

Printed Name

Position with Company

PROPOSAL FORM 9: IMPLEMENTATION OF HOUSE BILL 1295

Certificate of Interested Parties (Form 1295):

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. The law applies only to a contract of a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least $1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016.

The Texas Ethics Commission was required to adopt rules necessary to implement that law, prescribe the disclosure of interested parties form, and post a copy of the form on the commission's website. The commission adopted the Certificate of Interested Parties form (Form 1295) on October 5, 2015. The commission also adopted new rules (Chapter 46) on November 30, 2015, to implement the law. The commission does not have any additional authority to enforce or interpret House Bill 1295.

Filing Process:

Staring on January 1, 2016, the commission will make available on its website a new filing application that must be used to file Form 1295. A business entity must use the application to enter the required information on Form 1295 and print a copy of the completed form, which will include a certification of filing that will contain a unique certification number. An authorized agent of the business entity must sign the printed copy of the form and have the form notarized. The completed Form 1295 with the certification of filing must be filed with the governmental body or state agency with which the business entity is entering into the contract.

The governmental entity or state agency must notify the commission, using the commission's filing application, of the receipt of the filed Form 1295 with the certification of filing not later than the 30th day after the date the contract binds all parties to the contract. The commission will post the completed Form 1295 to its website within seven business days after receiving notice from the governmental entity or state agency.

Information regarding how to use the filing application will be available on this site starting on January 1, 2016.
https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

BOYCOTT CERTIFICATION

Respondent must certify that during the term of any Agreement, it does not boycott Israel and will not boycott Israel. "Boycott" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

Does vendor agree? _____
(Initials of Authorized Representative)

Respondent must certify that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and will not discriminate during the term of the contract against a firearm entity or firearm trade association. Respondent must aslo certify that it does not boycott energy companies; and will not boycott energy companies during the term of the contract.

Does vendor agree? _____
(Initials of Authorized Representative)

TERRORIST STATE CERTIFICATION

In accordance with Texas Government Code, Chapter 2252, Subchapter F, REGION 10 ESC is prohibited from entering into a contract with a company that is identified on a list prepared and maintained by the Texas Comptroller or the State Pension Review Board under Texas Government Code Sections 806.051, 807.051, or 2252.153. By execution of any agreement, the respondent certifies to REGION 10 ESC that it is not a listed company under any of those Texas Government Code provisions. Responders must voluntarily and knowingly acknowledge and agree that any agreement shall be null and void should facts arise leading the REGION 10 ESC to believe that the respondent was a listed company at the time of this procurement.

Does vendor agree? _____
(Initials of Authorized Representative)

PROPOSAL FORM 11: RESIDENT CERTIFICATION

This Certification Section must be completed and submitted before a proposal can be awarded to your company. This information may be placed in an envelope labeled "Proprietary" and is not subject to public view. In order for a proposal to be considered, the following information must be provided. Failure to complete may result in rejection of the proposal:

As defined by Texas House Bill 602, a "nonresident Bidder" means a Bidder whose principal place of business is not in Texas, but excludes a contractor whose ultimate parent company or majority owner has its principal place of business in Texas.
Texas or Non-Texas Resident

☐ I certify that my company is a **"resident Bidder"**

☒ I certify that my company qualifies as a **"nonresident Bidder"**

If you qualify as a "nonresident Bidder," you must furnish the following information:

What is your resident state? (The state your principal place of business is located.)

Sharp Electronics Corporation	100 Paragon Drive	
Company Name	Address	
Montvale	**New Jersey**	**07645**
City	State	Zip

PROPOSAL FORM 12: FEDERAL FUNDS CERTIFICATION FORM

When a participating agency seeks to procure goods and services using funds under a federal grant or contract, specific federal laws, regulations, and requirements may apply in addition to those under state law. This includes, but is not limited to, the procurement standards of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, 2 CFR 200 (sometimes referred to as the "Uniform Guidance" or "EDGAR" requirements). All Vendors submitting proposals must complete this Federal Funds Certification Form regarding Vendor's willingness and ability to comply with certain requirements which may be applicable to specific participating agency purchases using federal grant funds. This completed form will be made available to participating agencies for their use while considering their purchasing options when using federal grant funds. Participating agencies may also require Vendors to enter into ancillary agreements, in addition to the contract's general terms and conditions, to address the member's specific contractual needs, including contract requirements for a procurement using federal grants or contracts.

For each of the items below, Vendor should certify Vendor's agreement and ability to comply, where applicable, by having Vendor's authorized representative complete and initial the applicable lines after each section and sign the acknowledgment at the end of this form. If a vendor fails to complete any item in this form, Region 10 ESC will consider the Vendor's response to be that they are unable or unwilling to comply. A negative response to any of the items may, if applicable, impact the ability of a participating agency to purchase from the Vendor using federal funds.

1. Vendor Violation or Breach of Contract Terms:

Contracts for more than the simplified acquisition threshold currently set at $150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 USC 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

Any Contract award will be subject to Region 10 ESC General Terms and Conditions, as well as any additional terms and conditions in any Purchase Order, participating agency ancillary contract, or Member Construction Contract agreed upon by Vendor and the participating agency which must be consistent with and protect the participating agency at least to the same extent as the Region 10 ESC Terms and Conditions.

The remedies under the Contract are in addition to any other remedies that may be available under law or in equity. By submitting a Proposal, you agree to these Vendor violation and breach of contract terms.

Does vendor agree? _____

(Initials of Authorized Representative)

2. Termination for Cause or Convenience:

When a participating agency expends federal funds, the participating agency reserves the right to immediately terminate any agreement in excess of $10,000 resulting from this procurement process in the event of a breach or default of the agreement by Offeror in the event Offeror fails to: (1) meet schedules, deadlines, and/or delivery dates within the time specified in the procurement solicitation, contract, and/or a purchase order; (2) make any payments owed; or (3) otherwise perform in accordance with the contract and/or the procurement solicitation. participating agency also reserves the right to terminate the contract immediately, with written notice to offeror, for convenience, if participating agency believes, in its sole discretion that it is in the best

interest of participating agency to do so. Offeror will be compensated for work performed and accepted and goods accepted by participating agency as of the termination date if the contract is terminated for convenience of participating agency. Any award under this procurement process is not exclusive and participating agency reserves the right to purchase goods and services from other offerors when it is in participating agency's best interest.

Does vendor agree? _____

(Initials of Authorized Representative)

3. Equal Employment Opportunity:

Except as otherwise provided under 41 CFR Part 60, all participating agency purchases or contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 shall be deemed to include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR Part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

The equal opportunity clause provided under 41 CFR 60-1.4(b) is hereby incorporated by reference. Vendor agrees that such provision applies to any participating agency purchase or contract that meets the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 and Vendor agrees that it shall comply with such provision.

Does vendor agree? _____

(Initials of Authorized Representative)

4. Davis-Bacon Act:

When required by Federal program legislation, Vendor agrees that, for all participating agency prime construction contracts/purchases in excess of $2,000, Vendor shall comply with the Davis-Bacon Act (40 USC 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, Vendor is required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determinate made by the Secretary of Labor. In addition, Vendor shall pay wages not less than once a week.

Current prevailing wage determinations issued by the Department of Labor are available at www.wdol.gov. Vendor agrees that, for any purchase to which this requirement applies, the award of the purchase to the Vendor is conditioned upon Vendor's acceptance of the wage determination.

Vendor further agrees that it shall also comply with the Copeland "Anti-Kickback" Act (40 USC 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

Does vendor agree? _____

(Initials of Authorized Representative)

5. Contract Work Hours and Safety Standards Act:

Where applicable, for all participating agency contracts or purchases in excess of $100,000 that involve the employment of mechanics or laborers, Vendor agrees to comply with 40 USC 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 USC 3702 of the Act, Vendor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 USC 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Does vendor agree? _____

(Initials of Authorized Representative)

6. Right to Inventions Made Under a Contract or Agreement:

If the participating agency's Federal award meets the definition of "funding agreement" under 37 CFR 401.2(a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance or experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Vendor agrees to comply with the above requirements when applicable.

Does vendor agree? _____

(Initials of Authorized Representative)

7. Clean Air Act and Federal Water Pollution Control Act:

Clean Air Act (42 USC 7401-7671q.) and the Federal Water Pollution Control Act (33 USC 1251-1387), as amended –Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 USC 7401-7671q.) and the Federal Water Pollution Control Act, as amended (33 USC 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

When required, Vendor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act and the Federal Water Pollution Control Act.

Does vendor agree? _____

(Initials of Authorized Representative)

8. Debarment and Suspension:

Debarment and Suspension (Executive Orders 12549 and 12689) – A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1966 Comp. p. 189) and 12689 (3CFR Part 1989 Comp. p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Vendor certifies that Vendor is not currently listed on the government-wide exclusions in SAM, is not debarred, suspended, or otherwise excluded by agencies or declared ineligible under statutory or regulatory authority other than Executive Order 12549. Vendor further agrees to immediately notify the Cooperative and all participating agencies with pending purchases or seeking to purchase from Vendor if Vendor is later listed on the government-wide exclusions in SAM, or is debarred, suspended, or otherwise excluded by agencies or declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Does vendor agree? _____

(Initials of Authorized Representative)

9. Byrd Anti-Lobbying Amendment:

Byrd Anti-Lobbying Amendment (31 USC 1352) -- Vendors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 USC 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award. As applicable, Vendor agrees to file all certifications and disclosures required by, and otherwise comply with, the Byrd Anti-Lobbying Amendment (31 USC 1352).

Does vendor agree? _____

(Initials of Authorized Representative)

10. Procurement of Recovered Materials:

For participating agency purchases utilizing Federal funds, Vendor agrees to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act where applicable and provide such information and certifications as a participating agency may require to confirm estimates and otherwise comply. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery,

and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Does vendor agree? _____

(Initials of Authorized Representative)

11. Profit as a Separate Element of Price:

For purchases using federal funds in excess of $150,000, a participating agency may be required to negotiate profit as a separate element of the price. See, 2 CFR 200.323(b). When required by a participating agency, Vendor agrees to provide information and negotiate with the participating agency regarding profit as a separate element of the price for a particular purchase. However, Vendor agrees that the total price, including profit, charged by Vendor to the participating agency shall not exceed the awarded pricing, including any applicable discount, under Vendor's Cooperative Contract.

Does vendor agree? _____

(Initials of Authorized Representative)

12. Domestic Preference

Vendor must be prepared to provide a comprehensive list of the number of goods, products, and/or materials (including but not limited to iron, aluminum, steel, cement, and other manufactured products) being used for specific purchase orders under the contract award which were produced in the United States upon request to Region 10 ESC or any Equalis member who intends to use this contract with federal funds.

Does vendor agree? _____

(Initials of Authorized Representative)

13. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

Vendor agrees that recipients and subrecipients are prohibited from obligating or expending loan or grant funds to procure or obtain, extend or renew a contract to procure or obtain, or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system from companies described in Public Law 115-232, section 889. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country are also prohibited.

Does vendor agree? _____

(Initials of Authorized Representative)

14. General Compliance and Cooperation with Participating Agencies:

In addition to the foregoing specific requirements, Vendor agrees, in accepting any Purchase Order from a participating agency, it shall make a good faith effort to work with participating agencies to provide such information and to satisfy such requirements as may apply to a particular participating agency purchase or purchases including, but not limited to, applicable recordkeeping and record retention requirements.

Does vendor agree? _____

(Initials of Authorized Representative)

15. Applicability to Subcontractors

Offeror agrees that all contracts it awards pursuant to the Contract shall be bound by the foregoing terms and conditions.

Does vendor agree? _____

(Initials of Authorized Representative)

By signature below, I certify that the information in this form is true, complete, and accurate and that I am authorized by my company to make this certification and all consents and agreements contained herein.

Sharp Electronics Corporation

Company Name

_____

Signature of Authorized Company Official

Jun Ashida

Printed Name

Chairman, President & CEO, Sharp Electronics Corporation

Title

August 30, 2024

Date

PROPOSAL FORM 13: FEMA REQUIREMENTS

When a participating agency seeks to procure goods and services using funds under a federal grant or contract, specific federal laws, regulations, and requirements may apply in addition to those under state law. This includes, but is not limited to, the procurement standards of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, 2 CFR 200 (sometimes referred to as the "Uniform Guidance" or "EDGAR" requirements). Additionally, Appendix II to Part 200 authorizes FEMA to require or recommend additional provisions for contracts.

All respondents submitting proposals must complete this FEMA Recommended Contract Provisions Form regarding respondent's willingness and ability to comply with certain requirements which may be applicable to specific participating agency purchases using FEMA funds. This completed form will be made available to Members for their use while considering their purchasing options when using FEMA grant funds. Members may also require Supplier Partners to enter into ancillary agreements, in addition to the contract's general terms and conditions, to address the member's specific contractual needs, including contract requirements for a procurement using federal grants or contracts.

For each of the items below, Respondent should certify Respondent's agreement and ability to comply, where applicable, by having respondents authorized representative complete and initial the applicable lines after each section and sign the acknowledgment at the end of this form. If a Respondent fails to complete any item in this form, Region 10 ESC will consider the respondent's response to be that they are unable or unwilling to comply. A negative response to any of the items may, if applicable, impact the ability of a participating agency to purchase from the Supplier Partner using federal funds.

1. *Access to Records*

For All Procurements

The Winning Supplier agrees to provide the participating agency, the pass-through entity (if applicable), the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

The Winning Supplier agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Winning Supplier agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

Does Respondent agree? _____
(Initials of Authorized Representative)

For Contracts Entered into After August 1, 2017 Under a Major Disaster or Emergency Declaration

In compliance with section 1225 of the Disaster Recovery Reform Act of 2018, the participating agency, and the Winning Supplier acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States."

Does Respondent agree? _____
(Initials of Authorized Representative)

2. *Changes*

FEMA recommends that all contracts include a changes clause that describes how, if at all, changes can be made by either party to alter the method, price, or schedule of the work without breaching the contract. The language of the clause may depend on the nature of the contract and the procured item(s) or service(s). The participating agency should also consult their servicing legal counsel to determine whether and how contract changes are permissible under applicable state, local, or tribal laws or regulations.

Does Respondent agree? ___
(Initials of Authorized Representative)

3. *Use of DHS Seal, Logo, and Flags*

The Winning Supplier shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.

Does Respondent agree? ___
(Initials of Authorized Representative)

4. *Compliance with Federal Law, Regulations, And Executive Orders and Acknowledgement of Federal Funding*

This is an acknowledgement that when FEMA financial assistance is used to fund all or a portion of the participating agency's contract with the Winning Supplier, the Winning Supplier will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.

Does Respondent agree? ___.
(Initials of Authorized Representative)

5. *No Obligation by Federal Government*

The federal government is not a party to this or any contract resulting from this or future procurements with the participating agencies and is not subject to any obligations or liabilities to the non-federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

Does Respondent agree? ___
(Initials of Authorized Representative)

6. *Program Fraud and False or Fraudulent Statements or Related Acts*

The Winning Supplier acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract.

Does Respondent agree? ___
(Initials of Authorized Representative)

7. *Affirmative Socioeconomic Steps*

If subcontracts are to be let, the Winning Supplier is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

Does Respondent agree? ___
(Initials of Authorized Representative)

8. *License and Delivery of Works Subject to Copyright and Data Rights*

The Winning Supplier grants to the participating agency, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Winning Supplier will identify such data and grant to the participating agency or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Winning Supplier will deliver to the participating agency data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the (insert name of the non-federal entity).

Does Respondent agree?
(Initials of Authorized Representative)

PROPOSAL FORM 14: ADDITIONAL ARIZONA CONTRACTOR REQUIREMENTS

AZ Compliance with Federal and state requirements: Contractor agrees when working on any federally assisted projects with more than $2,000.00 in labor costs, to comply with all federal and state requirements, as well as Equal Opportunity Employment requirements and all other federal and state laws, statutes, etc. Contractor agrees to post wage rates at the work site and submit a copy of their payroll to the member for their files. Contractor must retain records for three years to allow the federal grantor agency access to these records, upon demand. Contractor also agrees to comply with the Arizona Executive Order 75-5, as amended by Executive Order 99-4.
When working on contracts funded with Federal Grant monies, contractor additionally agrees to comply with the administrative requirements for grants, and cooperative agreements to state, local and federally recognized Indian Tribal Governments.

AZ Compliance with workforce requirements: Pursuant to ARS 41-4401, Contractor and subcontractor(s) warrant their compliance with all federal and state immigration laws and regulations that relate to their employees, and compliance with ARS 23-214 subsection A, which states, ..."every employer, after hiring an employee, shall verify the employment eligibility of the employee through the E-Verify program"
Region 10 ESC reserves the right to cancel or suspend the use of any contract for violations of immigration laws and regulations. Region 10 ESC and its members reserve the right to inspect the papers of any contractor or subcontract employee who works under this contract to ensure compliance with the warranty above.

AZ Contractor Employee Work Eligibility: By entering into this contract, contractor agrees and warrants compliance with A.R.S. 41-4401, A.R.S. 23-214, the Federal Immigration and Nationality Act (FINA), and all other Federal immigration laws and regulations. Region 10 ESC and/or Region 10 ESC members may request verification of compliance from any contractor or sub contractor performing work under this contract. Region 10 ESC and Region 10 ESC members reserve the right to confirm compliance. In the event that Region 10 ESC or Region 10 ESC members suspect or find that any contractor or subcontractor is not in compliance, Region 10 ESC may pursue any and all remedies allowed by law, including but not limited to suspension of work, termination of contract, suspension and/or debarment of the contractor. All cost associated with any legal action will be the responsibility of the contractor.

AZ Non-Compliance: All federally assisted contracts to members that exceed $10,000.00 may be terminated by the federal grantee for noncompliance by contractor. In projects that are not federally funded, Respondent must agree to meet any federal, state or local requirements as necessary. In addition, if compliance with the federal regulations increases the contract costs beyond the agreed on costs in this solicitation, the additional costs may only apply to the portion of the work paid by the federal grantee.

Registered Sex Offender Restrictions (Arizona): For work to be performed at an Arizona school, contractor agrees that no employee or employee of a subcontractor who has been adjudicated to be a registered sex offender will perform work at any time when students are present, or reasonably expected to be present. Contractor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the purchase order at the Region 10 ESC member's discretion. Contractor must identify any additional costs associated with compliance to this term. If no costs are specified, compliance with this term will be provided at no additional charge.

Offshore Performance of Work Prohibited: Due to security and identity protection concerns, direct services under this contract shall be performed within the borders of the United States.

Terrorism Country Divestments: In accordance with A.R.S. 35-392, Region 10 ESC and Region 10 ESC members are prohibited from purchasing from a company that is in violation of the Export Administration Act. By entering into the contract, contractor warrants compliance with the Export Administration Act.

The undersigned hereby accepts and agrees to comply with all statutory compliance and notice requirements listed in this document.

	August 30, 2024
Signature of Respondent	Date

PROPOSAL FORM 15: OWNERSHIP DISCLOSURE FORM (N.J.S. 52:25-24.2)

Pursuant to the requirements of P.L. 1999, Chapter 440 effective April 17, 2000 (Local Public Contracts Law), the Respondent shall complete the form attached to these specifications listing the persons owning 10 percent (10%) or more of the firm presenting the proposal.

Company Name: Sharp Electronics Corporation

Street: 100 Paragon Drive

City, State, Zip Code: Montvale, NJ 07645

Complete as appropriate:

I _____, certify that I am the sole owner of _____, that there are no partners and the business is not incorporated, and the provisions of N.J.S. 52:25-24.2 do not apply.

OR:

I _____, a partner in _____, do hereby certify that the following is a list of all individual partners who own a 10% or greater interest therein. I further certify that if one (1) or more of the partners is itself a corporation or partnership, there is also set forth the names and addresses of the stockholders holding 10% or more of that corporation's stock or the individual partners owning 10% or greater interest in that partnership.

OR:

I _____, an authorized representative of _____, a corporation, do hereby certify that the following is a list of the names and addresses of all stockholders in the corporation who own 10% or more of its stock of any class. I further certify that if one (1) or more of such stockholders is itself a corporation or partnership, that there is also set forth the names and addresses of the stockholders holding 10% or more of the corporation's stock or the individual partners owning a 10% or greater interest in that partnership.

(Note: If there are no partners or stockholders owning 10% or more interest, indicate none.)

Name	Address	Interest
Sharp Corporation	1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan Sharp Electronics Corporation Stockholder	100%
The following entities own more than 10% of the stock of Sharp Corporation:		
Hon Hai Precision Industry Ltd.	No 2 Zihyou Street Tucheng Xinbel Taiwan	22.32%
SIO International Holdings,	Grand Pavilion, Hibiscus Way 802 West Bay Road, Grand Cayman, KY1-1205, Cayman Islands	13.23%
Foxconn (Far East) Limited	No 2 Zihyou Street Tucheng Xinbel Taiwan	11.81%

I further certify that the statements and information contained herein, are complete and correct to the best of my knowledge and belief.

_____ 8/30/2024

Authorized Signature and Title ***Date***

Chairman, President & CEO, Sharp Electronics Corporation

PROPOSAL FORM 16: NON-COLLUSION AFFIDAVIT

Company Name:
Street:
City, State, Zip Code:

State of New Jersey

County of **Bergen**

I, **Jun Ashida** *(Name) of the* **City of Montvale** *(City)*

in the County of **Bergen**, *State of* **New Jersey**
of full age, being duly sworn according to law on my oath depose and say that:

I am the **Chairman, President & CEO** *(Title) of the firm of* **Sharp Electronics Corporation** *(Company Name)*

the Respondent making the Proposal for the goods, services or public work specified under the Harrison Township Board of Education attached proposal, and that I executed the said proposal with full authority to do so; that said Respondent has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above proposal, and that all statements contained in said bid proposal and in this affidavit are true and correct, and made with full knowledge that the Harrison Township Board of Education relies upon the truth of the statements contained in said bid proposal and in the statements contained in this affidavit in awarding the contract for the said goods, services or public work.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

Sharp Electronics Corporation _____ _____
Company Name *Authorized Signature & Title*

Subscribed and sworn before me

this 29 day of August, 20 24

_____
Notary Public of New Jersey
My commission expires 10/21, 2026

SEAL

PROPOSAL FORM 17: AFFIRMATIVE ACTION AFFIDAVIT (P.L. 1975, C.127)

Company Name: Sharp Electronics Corporation

Street: 100 Paragon Drive

City, State, Zip Code: Montvale, NJ 07645

Bid Proposal Certification:

Indicate below your compliance with New Jersey Affirmative Action regulations. Your proposal will be accepted even if you are not in compliance at this time. No contract and/or purchase order may be issued, however, until all Affirmative Action requirements are met.

Required Affirmative Action Evidence:

Procurement, Professional & Service Contracts (Exhibit A)

Vendors must submit with proposal:

1. *A photo copy of their Federal Letter of Affirmative Action Plan Approval* _____

OR

2. *A photo copy of their Certificate of Employee Information Report* _____

OR

3. *A complete Affirmative Action Employee Information Report (AA302)* X

Public Work – Over $50,000 Total Project Cost:

A. *No approved Federal or New Jersey Affirmative Action Plan. We will complete Report Form AA201-A upon receipt from the Harrison Township Board of Education* _____

B. *Approved Federal or New Jersey Plan – certificate enclosed* _____

I further certify that the statements and information contained herein, are complete and correct to the best of my knowledge and belief.

Chairman, President & CEO, SEC — 8/30/2024

Authorized Signature and Title — ***Date***

P.L. 1995, c. 127 (N.J.A.C. 17:27)

MANDATORY AFFIRMATIVE ACTION LANGUAGE

PROCUREMENT, PROFESSIONAL AND SERVICE CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. The contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color,

national origin, ancestry, marital status, sex, affectional or sexual orientation. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this non-discrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisement for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation.

The contractor or subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to attempt in good faith to employ minority and female workers trade consistent with the applicable county employment goal prescribed by N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, C.127, as amended and supplemented from time to time or in accordance with a binding determination of the applicable county employment goals determined by the Affirmative Action Office pursuant to N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, C.127, as amended and supplemented from time to time.

The contractor or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of it testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the state of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

The contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and lay-off to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor and its subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Affirmative Action Office for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (NJAC 17:27).

_____

Signature of Procurement Agent

PROPOSAL FORM 18: C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Public Agency Instructions

This page provides guidance to public agencies entering into contracts with business entities that are required to file Political Contribution Disclosure forms with the agency. **It is not intended to be provided to contractors.** What follows are instructions on the use of form local units can provide to contractors that are required to disclose political contributions pursuant to N.J.S.A. 19:44A-20.26 (P.L. 2005, c. 271, s.2). Additional information is available in Local Finance Notice 2006-1 (https://www.nj.gov/dca/divisions/dlgs/resources/lfns_2006.html).

1. The disclosure is required for all contracts in excess of $17,500 that are **not awarded** pursuant to a "fair and open" process (N.J.S.A. 19:44A-20.7).
2. Due to the potential length of some contractor submissions, the public agency should consider allowing data to be submitted in electronic form (i.e., spreadsheet, pdf file, etc.). Submissions must be kept with the contract documents or in an appropriate computer file and be available for public access. **The form is worded to accept this alternate submission.** The text should be amended if electronic submission will not be allowed.
3. The submission must be **received from the contractor and** on file at least 10 days prior to award of the contract. Resolutions of award should reflect that the disclosure has been received and is on file.
4. The contractor must disclose contributions made to candidate and party committees covering a wide range of public agencies, including all public agencies that have elected officials in the county of the public agency, state legislative positions, and various state entities. The Division of Local Government Services recommends that contractors be provided a list of the affected agencies. This will assist contractors in determining the campaign and political committees of the officials and candidates affected by the disclosure.
   a) The Division has prepared model disclosure forms for each county. They can be downloaded from the "County PCD Forms" link on the Pay-to-Play web site at https://www.state.nj.us/dca/divisions/dlgs/programs/pay_2_play.html They will be updated from time-to-time as necessary.
   b) A public agency using these forms **should edit them to properly reflect the correct legislative district**(s). As the forms are county-based, **they list all legislative districts** in each county. **Districts that do not represent the public agency should be removed from the lists.**
   c) Some contractors may find it easier to provide a single list that covers all contributions, regardless of the county. These submissions are appropriate and should be accepted.
   d) The form may be used "as-is", subject to edits as described herein.
   e) The "Contractor Instructions" sheet is intended to be provided with the form. It is recommended that the Instructions and the form be printed on the same piece of paper. The form notes that the Instructions are printed on the back of the form; where that is not the case, the text should be edited accordingly.
   f) The form is a Word document and can be edited to meet local needs, and posted for download on web sites, used as an e-mail attachment, or provided as a printed document.
5. It is recommended that the contractor also complete a "Stockholder Disclosure Certification." This will assist the local unit in its obligation to ensure that contractor did not make any prohibited contributions to the committees listed on the Business Entity Disclosure Certification in the 12 months prior to the contract. (See Local Finance Notice 2006-7 for additional information on this obligation) A sample Certification form is part of this package and the instruction to complete it is included in the Contractor Instructions. **NOTE: This section is not applicable to Boards of Education.**

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM
Contractor Instructions

Business entities (contractors) receiving contracts from a public agency that are NOT awarded pursuant to a "fair and open" process (defined at N.J.S.A. 19:44A-20.7) are subject to the provisions of P.L. 2005, c. 271, s.2 (N.J.S.A. 19:44A-20.26). This law provides that 10 days prior to the award of such a contract, the contractor shall disclose contributions to:

1. any State, county, or municipal committee of a political party
2. any legislative leadership committee*
3. any continuing political committee (a.k.a., political action committee)
4. any candidate committee of a candidate for, or holder of, an elective office:

1. of the public entity awarding the contract
2. of that county in which that public entity is located
3. of another public entity within that county
4. or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county. The disclosure must list reportable contributions to any of the committees that exceed $300 per election cycle that were made during the 12 months prior to award of the contract. See N.J.S.A. 19:44A-8 and 19:44A-16 for more details on reportable contributions.

N.J.S.A. 19:44A-20.26 itemizes the parties from whom contributions must be disclosed when a business entity is not a natural person. This includes the following:

5. individuals with an "interest" ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit
6. all principals, partners, officers, or directors of the business entity or their spouses
7. any subsidiaries directly or indirectly controlled by the business entity
8. IRS Code Section 527 New Jersey based organizations, directly or indirectly controlled by the business entity and filing as continuing political committees, (PACs). When the business entity is a natural person, "a contribution by that person's spouse or child, residing therewith, shall be deemed to be a contribution by the business entity." [N.J.S.A. 19:44A-20.26(b)] The contributor must be listed on the disclosure. Any business entity that fails to comply with the disclosure provisions shall be subject to a fine imposed by ELEC in an amount to be determined by the Commission which may be based upon the amount that the business entity failed to report. The enclosed list of agencies is provided to assist the contractor in identifying those public agencies whose elected official and/or candidate campaign committees are affected by the disclosure requirement. It is the contractor's responsibility to identify the specific committees to which contributions may have been made and need to be disclosed. The disclosed information may exceed the minimum requirement. The enclosed form, a content-consistent facsimile, or an electronic data file containing the required details (along with a signed cover sheet) may be used as the contractor's submission and is disclosable to the public under the Open Public Records Act. The contractor must also complete the attached Stockholder Disclosure Certification. This will assist the agency in meeting its obligations under the law.

NOTE: This section does not apply to Board of Education contracts.

* N.J.S.A. 19:44A-3(s): "The term "legislative leadership committee" means a committee established, authorized to be established, or designated by the President of the Senate, the Minority Leader of the Senate, the Speaker

of the General Assembly or the Minority Leader of the General Assembly pursuant to section 16 of P.L.1993, c.65 (C.19:44A-10.1) for the purpose of receiving contributions and making expenditures."

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Required Pursuant To N.J.S.A. 19:44A-20.26

This form or its permitted facsimile must be submitted to the local unit no later than 10 days prior to the award of the contract.

Part I – Vendor Information

Vendor Name:	**Sharp Electronics Corporation**		
Address:	**100 Paragon Drive**		
City:	**Montville**	**State: NJ**	**Zip: 07645**

The undersigned being authorized to certify, hereby certifies that the submission provided herein represents compliance with the provisions of N.J.S.A. 19:44A-20.26 and as represented by the Instructions accompanying this form.

Signature	**Jun Ashida**	**Chairman, President & CEO, SEC**
	Printed Name	Title

Part II – Contribution Disclosure

Disclosure requirement: Pursuant to N.J.S.A. 19:44A-20.26 this disclosure must include all reportable political contributions (more than $300 per election cycle) over the 12 months prior to submission to the committees of the government entities listed on the form provided by the local unit.

☐ Check here if disclosure is provided in electronic form.

Contributor Name	Recipient Name	Date	Dollar Amount
			$

☐ Check here if the information is continued on subsequent page(s)

Continuation Page
C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM
Required Pursuant To N.J.S.A. 19:44A-20.26
Page ___ of _____

Vendor Name:

Contributor Name	Recipient Name	Date	Dollar Amount
			$

☐ Check here if the information is continued on subsequent page(s)

List of Agencies with Elected Officials Required for Political Contribution Disclosure
N.J.S.A. 19:44A-20.26
County Name:
State: Governor, and Legislative Leadership Committees
Legislative District #s:
State Senator and two members of the General Assembly per district.

County:

Freeholders	County Clerk	Sheriff
{County Executive}	Surrogate	

Municipalities (Mayor and members of governing body, regardless of title):

USERS SHOULD CREATE THEIR OWN FORM, OR DOWNLOAD FROM WWW.NJ.GOV/DCA/LGS/P2P A COUNTY-BASED, CUSTOMIZABLE FORM.

PROPOSAL FORM 19: STOCKHOLDER DISCLOSURE CERTIFICATION

Name of Business:

[X] I certify that the list below contains the names and home addresses of all stockholders holding 10% or more of the issued and outstanding stock of the undersigned.

OR

[ ] I certify that no one stockholder owns 10% or more of the issued and outstanding stock of the undersigned.

Check the box that represents the type of business organization:

- [ ] Partnership
- [X] Corporation
- [ ] Sole Proprietorship
- [ ] Limited Partnership
- [ ] Limited Liability Corporation
- [ ] Limited Liability Partnership
- [ ] Subchapter S Corporation

Sign and notarize the form below, and, if necessary, complete the stockholder list below.

Stockholders:

Name: **Sharp Corporation – 100%** Home Address: **1 Takumi-cho, Sakai-ku Sakai City, Osaka 590-8522**	Name: Home Address:
Name: Home Address:	Name: Home Address:
Name: Home Address:	Name: Home Address:
Subscribed and sworn before me this 29th day of August, 2024. (Notary Public) Jennifer J Brown My Commission expires: 04/11/2027	Deborah Tyler (Affiant) Deborah Tyler, Deputy GC & Asse GC, Asst Corp Secretary (Print name & title of affiant) (Corporate Seal)

PROPOSAL FORM 20: GENERAL TERMS AND CONDITIONS ACCEPTANCE FORM

Signature on the Vendor Contract Signature form certifies complete acceptance of the General Terms and Conditions in this solicitation, except as noted below (additional pages may be attached, if necessary).

Check one of the following responses to the General Terms and Conditions:

☐ We take no exceptions/deviations to the general terms and conditions

(*Note: If none are listed below, it is understood that no exceptions/deviations are taken.)*

X We take the following exceptions/deviations to the general terms and conditions. All exceptions/deviations must be clearly explained. Reference the corresponding general terms and conditions that you are taking exceptions/deviations to. Clearly state if you are adding additions terms and conditions to the general terms and conditions. Provide details on your exceptions/deviations below:

(*Note: Unacceptable exceptions shall remove your proposal from consideration for award. Region 10 ESC shall be the sole judge on the acceptance of exceptions/deviations and the decision shall be final.*)

SHARP ELECTRONICS CORPORATION
EXCEPTIONS TO REQUEST FOR PROPOSAL FOR
EQUALIS GROUP
Request for Proposal #R10-1169
(the "RFP")

GENERAL CONDITIONS

Sharp Electronics Corporation ("Sharp"), as part of its response to the Equalis Group ("Equalis"), submits the following conditions and/or exceptions with respect to the above referenced RFP.

Sharp understands that the terms of any final agreement may be subject to further negotiations between Equalis and Sharp, and is willing to discuss the matters, as well as any other proposed agreement terms, if Equalis proposes to award a contract to Sharp pursuant to the RFP.

SPECIFIC CONDITIONS AND EXCEPTIONS

Without in any way limiting the generality of the foregoing, Sharp's response to the RFP is subject to the following specific conditions or exceptions.

Section 3, Vendor Contract and General Terms and Conditions

Article 4 – Formation of Contract – Page 4

- 4.4 Assignment of Contract – Page 4

Sharp takes exception to this language. Sharp requests to retain the right to assign its rights without prior written approval from Region 10, in the event of a merger or acquisition.

Article 5 – Termination of Contract

- 5.1 Cancellation for cause – Page 5

Sharp take exception to this language and request this language be modified as follows:

"If, for any reason, the Vendor fails to fulfill its obligation in a timely manner, or if the vendor violates any of the covenants, agreements, or stipulations of this contract, Region 10 ESC reserves the right to terminate the contract ~~immediately~~ and pursue all other applicable remedies afforded by law, provided Vendor is provided ten (10) days to cure such default, following written notice from Region 10 ESC. Such termination shall be effective by delivery of notice, to the vendor, specifying the effective date of termination. If such event does occur, then vendor will be entitled to receive just and equitable compensation for the satisfactory work completed. This Agreement is separate from the lease agreement between the parties and this termination does not govern the lease agreement in any way.

- 5.4 Cancellation for Convenience – Page 6

Sharp takes exception to this language and requests same be deleted in its entirety.

Article 7 – Delivery Provisions

- 7.1 Delivery – Page 6

Sharp take exception to this language and request this language be modified as follows:

"Vendor shall deliver physical materials purchased on this contract to the participating Member issuing a Purchase Order. Conforming product shall be shipped within the timeframe agreed upon by the Vendor and participating Member. If delivery is not or cannot be made within the time specified by the Purchase Order

the vendor must receive authorization from the participating Member for the delayed delivery~~, at which time the participating Member may cancel the order if estimated shipping time is not acceptable~~.

Article 10 – Pricing Audit

- 10.1 Audit Rights – Page 8

Sharp takes exception to this language. Sharp grants to Region 10, the right to inspect their records associated with this contract during normal business hours, with 30 days written notice. If Region 10 uses a third party to conduct such inspection, the third party will be subject to a reasonable non-disclosure or confidentiality agreement.

Article 14 – Miscellaneous

- 14.3 Indemnity – Page 11

Sharp take exception to this language and request this language be modified as follows:

"Vendor shall protect, indemnify, and hold harmless both Region 10 ESC and Equalis Group and its Members, administrators, employees and agents against all third-party claims, damages, losses and expenses caused by ~~out of or resulting from~~ the actions or omissions of Vendor, Vendor employees or Vendor subcontractors in the preparation of the solicitation and the later execution of the contract, including any supplemental agreements with Members. Vendor is not responsible for and will not indemnify Region 10 and Equalis Group for any indirect damages to include loss revenues, lost profits, incidental, special, punitive or consequential damages. Any litigation involving either Region 10 ESC or Equalis Group, its administrators and employees and agents shall be in a court of competent jurisdiction in Dallas County, Texas. Texas law shall apply to any such suit, without giving effect to its choice of laws provisions. Any litigation involving Equalis Group participating Members shall be in the jurisdiction of the participating Member."

- 14.6.1 Insurance – Page 12

Sharp takes exception to this language and requests the deletion of the following language:

"Vendor shall give the participating entity a minimum of ten (10) days' notice prior to any modifications or cancellation of policies."

- Section 3 Appendix A- Page 2
  - Winning Supplier Reporting Requirements

Reports are due on the fifteenth (15th) day after the end of the previous month. It is the responsibility of Winning Supplier to collect and compile all sales under the Master Agreement from Program Participants and submit one (1) monthly report.

Sharp will provide Equalis Group with quarterly reports showing the dollar volume of all member product sales under the contract. Reports will be sent to Equalis by the 15th day after the close of each calendar quarter.

PROPOSAL FORM 21: EQUALIS GROUP ADMINISTRATION AGREEMENT

Requirements for Master Agreement To be administered by Equalis Group

Attachment A, Equalis Group Administrative Agreement is used in administering Master Agreements with Region 10 and is preferred by Equalis Group. Redlined copies of this agreement should not be submitted with the response. Should a respondent be recommended for award, this agreement will be negotiated and executed between Equalis Group and the respondent. **Respondents must select one of the following options for submitting their response**.

☐ Respondent agrees to all terms and conditions outlined in each of the Administration Agreement.

☒ Respondent wishes to negotiate directly with Equalis Group on terms and conditions outlined in the Administration Agreement. Negotiations will commence after sealed Proposals are opened and Region 10 has determined the respondent met all requirements in their response and may be eligible for award.

PROPOSAL FORM 22: OPEN RECORDS POLICY ACKNOWLEDGEMENT AND ACCEPTANCE
OPEN RECORDS POLICY ACKNOWLEDGMENT AND ACCEPTANCE

Be advised that all information and documents submitted will be subject to the Public Information Act requirements governed by Chapter 552 of the Texas Government Code.

Because contracts are awarded by a Texas governmental entity, all responses submitted are subject to release as public information after contracts are executed. If a Respondent believes that its response, or parts of its response, may be exempted from disclosure to the public, the Respondent must specify page-by-page and line-by-line the parts of the response, which it believes, are exempted from disclosure. In addition, the Respondent must specify which exception(s) are applicable and provide detailed reasons to substantiate the exception(s). Respondent must provide this information on the "Acknowledgement and Acceptance to Region 10 ESC's Public Information Act Policy" form found on the next page of this solicitation. Any information that is unmarked will be considered public information and released, if requested under the Public Information Act.

The determination of whether information is confidential and not subject to disclosure is the duty of the Office of Attorney General (OAG). Region 10 ESC must provide the OAG with the information requested in order for the OAG to render an opinion. In such circumstances, Respondent will be notified in writing that the material has been requested and delivered to the OAG. Respondent will have an opportunity to make arguments to the OAG in writing regarding the exception(s) to the TPIA that permit the information to be withheld from public disclosure. Respondents are advised that such arguments to the OAG must be specific and well-reasoned--vague and general claims to confidentiality by the Respondent are generally not acceptable to the OAG. Once the OAG opinion is received by Region 10 ESC, Region 10 ESC must comply with the opinions of the OAG. Region 10 ESC assumes no responsibility for asserting legal arguments on behalf of any Respondent. Respondents are advised to consult with their legal counsel concerning disclosure issues resulting from this procurement process and to take precautions to safeguard trade secrets and other proprietary information.

After completion of award, these documents will be available for public inspection.

Signature below certifies complete acceptance of Region 10 ESC's Open Records Policy, except as noted below (additional pages may be attached, if necessary). Check one of the following responses to the Acknowledgment and Acceptance of Region 10 ESC's Open Records Policy below:

☒ We acknowledge Region 10 ESC's Public Information Act policy and declare that no information submitted with this proposal, or any part of our proposal, is exempt from disclosure under the Public Information Act.

(Note: All information believed to be a trade secret or proprietary must be listed below. It is further understood that failure to identify such information, in strict accordance with the instructions below, will result in that information being considered public information and released, if requested under the Public Information Act.)

☐ We declare the following information to be a trade secret or proprietary and exempt from disclosure under the Public Information Act.

(Note: Respondent must specify page-by-page and line-by-line the parts of the response, which it believes, are exempt. In addition, Respondent must specify which exception(s) are applicable and provide detailed reasons to substantiate the exception(s).

8/30/2024

Date

Authorized Signature & Title

Chairman, President & CEO, Sharp Electronics Corporation

PROPOSAL FORM 23: VENDOR CONTRACT AND SIGNATURE FORM

The undersigned hereby proposes and agrees to furnish goods and/or services in strict compliance with the terms, specifications and conditions at the prices proposed within response unless noted in writing. The undersigned further certifies that he/she is an officer of the company and has authority to negotiate and bind the company named below and has not prepared this proposal in collusion with any other Respondent and that the contents of this proposal as to prices, terms or conditions of said proposal have not been communicated by the undersigned nor by any employee or agent to any person engaged in this type of business prior to the official opening of this proposal.

VENDORS MUST SUBMIT THIS FORM COMPLETED AND SIGNED WITH THEIR RESPONSE TO BE CONSIDERED

Company name	Sharp Electronics Corporation
Address	100 Paragon Drive
City/State/Zip	Montvale, NJ 07645
Telephone No.	201-529-8200
Fax No.	
Email address	ashidaJ@sharpsec.com
Printed name	Jun Ashida
Position with company	Chairman, President & CEO, Sharp Electronics Corporation
Authorized signature	

Acknowledgement of Amendment 1 (Initial) JA

Term of contract November 1, 2024 **to** October 31, 2027

Unless otherwise stated, all contracts are for a period of three (3) years with an option to renew annually for an additional two (2) years if agreed to by Region 10 ESC. Vendor shall honor all administrative fees for any sales made based on the contract whether renewed or not.

Region 10 ESC Authorized Agent

Date

Print Name

Equalis Group Contract Number _____