



Hybrid Video Recorder SISTORE MX 3G

V2.90 SP3 and higher



SISTORE MX1608 2000/520
SISTORE MX1616 4000/1200
SISTORE MX3232 4000/1200

SISTORE MX is a hybrid recording and video monitoring system. It provides reliable local recording for both analogue and IP cameras with flexible remote monitoring via LAN or ISDN.

- Hybrid monitoring and digital video recording system for up to 32 analogue and 32 IP cameras
- Direct streaming of IP camera directly to the RemoteView client for live image display via MPEG4 format
- Support of newest Intel i7 or dual-core (only MX1608) embedded processors to speed-up the system performance significantly, especially for IP cameras
- Recording speed up to 400 images per second (analogue) and up to 800 images per second (digital)
- Windows 7 embedded installation on board (32-bit)
- SNMP support and centralized user management
- Portfolio streamlined: no DVD variants are available, as any kind of storage can be adapted via external USB interface (e.g. DVD burner, USB-Stick, USB-HD)
- Certified according to BGV-Kassen and Fiducia (Banking approval) and Kalagate-certified watermarking for enhanced image tamper protection
- Camera sabotage detection (camera repositioning/spraying)
- Search Mask capability (Motion search/Smart Search) for search within recorded video locally and from the RemoteView station
- Pentaplex operation (simultaneous display, recording and playback of live images, backup and network-based functions)
- High image quality with up to full 4CIF recording for analogue cameras and up to 5-megapixel recording for IP cameras in MJPEG
- Supports most leading IP cameras including Siemens, Axis, JVC and others (not based on ONVIF protocol)

- Graphical user interface for intuitive operation, reduced training needs and enhanced productivity
- Simultaneous display of up to 32 live images (multiplexed), also in RemoteView
- Direct connection to RemoteView upon alarm, including alarm processing
- Audio recording for up to 16 channels
- Automatic messaging (e.g. alarms, failure) via e-mail or SMS
- Powerful search capabilities using timeline, logbook, SmartSearch, ATM data or date/time assist in the rapid location of required video footage
- Simple intuitive operation and configuration reduces commissioning time
- Simultaneous search of up to 4 cameras locally and remotely over LAN or ISDN
- Connection of up to 4 analogue video monitors and basic video matrix function 32/4 (static, alarm, motion, PTZ, sequencing)
- Configurable pre-alarm recording per camera enhances functional flexibility
- Intelligent motion detection individually configurable for each camera
- PTZ control for dome and pan-and-tilt units possible from the RemoteView station via a CKA48xx control unit
- Multi-client function for access of up to 64 clients to one SISTORE MX, max. 16 clients are recommended
- Virtual guard tour on the RemoteView station for automatic connection of several sites assists in managing distributed or multi-site systems
- Status indication of the switch outputs also via RemoteView
- Reference Image function facilitates camera maintenance by allowing an easy comparison of actual camera position and image quality with “as installed” settings
- Bandwidth limiting for remote viewing over low-bandwidth connections
- Watchdog for checking the operational reliability of the device
- Control via Video Software IVM
- Interface to SiPass access control system provides interoperability
- Interface connection to CDM (ATM) or Keba Kebin S6 access reader with controller via SISTORE MX interface box
- Embedded hardware utilising Texas Instruments “DaVinci” DSPs
- Since SISTORE MX 2.90 SP2 larger HDDs are supported, thus enabling capacities of up to 16 TB in conjunction with NAS systems, partition size max. 2 TB for the hard drives inside the NAS system
- The SISTORE MX RemoteView application software is executable (as a 32 bit application) on a client PC with Windows 8.1 or 7 operating system (32-bit or 64-bit version) and supports up to 4 monitors connected to the client PC with individual selectable monitor mode of operation

Functionalities

■ Display mode

The display mode is the unit's normal operating mode. In addition to live images displayed from selected cameras, all events such as loss of video, alarms and malfunctions are logged and reported in an easy to use overview screen.

■ Playback mode

The playback mode is used to review recorded video footage. SISTORE MX allows flexible and precise searching for specific events to quickly find the required video footage.

Access to playback/searching is regulated via administrative permission levels and can be restricted using 4-eyes principle. The MX has pentaplex capability so playing back footage does not affect either live view or recording speed. Archiving of video footage is possible to standard USB 2.0 devices or to an external DVD burner.

It is also possible to connect a Keba Kebin S6 access reader with controller (e.g. bank foyers) or cashbox systems (e.g. retail stores).

■ Configuration mode

Configuration mode is used for the following operations:

Assignment of user rights

- Configuration of the analogue and digital (IP) cameras including brightness, contrast and colour saturation, as well as digital inputs and outputs and serial inputs
- Camera parameter settings for motion detection, alarm contacts, signal outputs
- Time control, alarm forwarding, transmission, e-mail and SMS
- Network parameters, such as ISDN or LAN with bandwidth limitation.

■ Details for ordering

Type	Order No.	Designation	Weight*
SISTORE MX1608 2000/520	S54569-C211-A5	SISTORE MX 1608 3G HVR, 2 TB, 520 ips	ca. 12,1 kg
SISTORE MX1616 4000/1200	S54569-C302-A9	SISTORE MX 1616 3G HVR, 4 TB, 1200 ips	ca. 13,5 kg
SISTORE MX3232 4000/1200	S54569-C303-A9	SISTORE MX 3232 3G HVR, 4 TB, 1200 ips	ca. 13,5 kg

* Device incl. packing material, accessories that are included in the delivery, and documentation.

Further products and accessories can be found in the Internet: www.siemens.com/securityproducts

■ Accessories (included in the delivery)

- Installation manual in 5 languages (German, English, French, Spanish, Italian)
- EU power cord
- Installation CD with all manuals and RemoteView software

■ Technical data

Recording speed	32 channel models:400 ips (analogue) @ 4CIF / 800 ips (digital) @ VGA 16-channel models:400 ips (analogue) @ 4CIF / 800 ips (digital) @ VGA 8-channel models: 200 ips (analogue) @ 4CIF / 320 ips (digital) @ VGA individually configurable for each camera References: - 320 ips (digital) with 8 cameras, VGA @ 25 ips in standard quality - 800 ips (digital) with 16 cameras, VGA @ 25 ips in standard quality - 800 ips (digital) with 32 cameras, VGA @ 25 ips in standard quality
Video inputs	8/16/32 analogue inputs (CVBS, BNC) 1 V _{pp} (75 Ω) looped to 8 / 16 outputs (no looping on MX3232) 32 IP camera inputs via network on MX3232 16 IP camera inputs via network on MX1608/MX1616
Video outputs	4 (CVBS, BNC), 1 V _{pp} (75 Ω)
Audio inputs	8/16 (line in, spring clamp), Input level 1,5V _{rms} on 10 k Ω Recording 16 kHz / 16 bits / 16 kHz / 8 bits
Audio outputs	4 (line out, spring clamp), Output level 1,5V _{rms} / 1 output is supported, 1 out of 4 selectable
Network connection	2 x 10/100/1000 Base-T (RJ-45)
Digital inputs/outputs (opto-isolated, spring clamp)	16 alarm inputs / 4 digital inputs / 4 digital outputs (5 – 24 V, max. 50 mA)
Event control	Event-triggered recording of individual cameras or camera groups with configurable time-slot pattern, Events: alarm contacts, motion detection, time control, TCP/IP command
Alarm signalling	Via monitor connection, digital output, LAN/WAN to RemoteView station
Interfaces	2 x RS485 / 6 USB 2.0 / 1 DVI-I (including VGA) / 1 DVI-D
TV standard	PAL
Resolution	Analogue: CIF/2CIF/4CIF IP cameras: max. 5 megapixels for MX3232 and MX1616, depending on the camera max. 2 megapixels for MX1608, depending on the camera
Compression	Recording: MJPEG, configurable data rate Transmission to RemoteView: MJPEG/MPEG4 (max. 2048 x 1536)
Hard disk capacity	Max. 4 hard disks SATA (1 internal system drive with 1 TB not exchangeable and 3 data drives with 1 TB and furthermore 2 TB or 3 TB) partition size for 1TB HDD = 1 TB partition size for 2TB HDD = 2 TB , partition size for 3TB HDD = 3 TB
Archive drive	Min. 1 archive drive (D: or further drives) For banking mode with cash dispensers: min. 2 archive drives Max. archive drives: 5 TB for event recording* / 16 TB at long-term*
Backup recording media	Network / USB
Display resolution	Max. 2048 x 1536 (4:3 and 16:10 formats are supported)
Playback	Individual images, video sequence (replay rate configurable between 0.1 to 50 times), forward/backward, pause (frozen image)
Image search	By means of date, time, camera number, recording event, logbook, SmartSearch
Power supply	110 – 240 V (± 10 %), 50/60 Hz, max. 200 W
Power consumption	< 100 VA or 90W
Ambient temperature, operating	5 – 40 °C
Rel. humidity	20 – 80 %, no condensation
Design variants	Desk-top, 19" rack-mountable, 2 u height
Dimensions (W x H x D)	430 x 87 x 440 mm

■ **Supported IP cameras:**

For an overview of the supported cameras please refer to the document "SISTORE MX IP Cameras"
(Documentation No.: A6V10321167).

NOTE

- Audio input signal corresponds to audio input of a standard PC.
- When using microphones, it may be necessary to install preamplifiers (depending on the local circumstances).
- Audio output signal corresponds to audio output of a standard PC.
- All audio equipment has to be connected directly to the terminal block; standard phone jacks cannot be used.

* Please contact our Technical Competence Center in case of extended configurations not mentioned here (e.g. higher hard disk capacity, other type of processors. Email: sp.support.de@siemens.com. Tel.: +49 721 95 80 80 88

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