



# CCTV

## SISTORE MX – the hybrid video surveillance system for up to 64 cameras



Answers for infrastructure.

**SIEMENS**



## A new Dimension of surveillance

SISTORE MX is a hybrid video surveillance system capable of recording both IP and analogue cameras simultaneously. The flexible design makes it suitable for a number of applications such as banks and financial institutions, industrial facilities, shopping centres and retail stores, public transport and seaports. The flexible connection abilities of the SISTORE MX ensure easy integration to other security or building management systems.



# Safe and secure into the future with hybrid technology from Siemens

## ■ Hybrid recording system with up to 64 camera inputs

Siemens hybrid technology unifies both analogue and digital technologies, therefore allowing a smooth upgrade of existing systems. With 16 available models, up to 32 standard analogue cameras and 32 IP cameras can be connected, with various hard disk sizes and DVD burning options.

## ■ Integration in other systems

Via the integrated software interface, SISTORE MX can be controlled by IVM, the interactive video management software, SiPass access control system, and MM8000, the danger management system from Siemens.

## ■ PTZ control for both speed dome cameras and pan/tilt devices

Both speed dome and pan/tilt/zoom cameras can be controlled via the on-screen interface of SISTORE MX. Preset positions can be set and recalled easily, together with setting patrols, where the camera moves from one preset position to another automatically and "patrols" the facility.

## ■ Support of IP cameras from Siemens including PTZ control

SISTORE MX can be used with existing third-party IP cameras and in the case of PTZ cameras supports PTZ control over the network.

## ■ Full "pentaplex" operation

SISTORE MX is a pentaplex system – one which enables the user to simultaneously

continue to record, watch a live multi-screen picture display whilst playing back previously recorded video scenes on the same monitor and remote live viewing and playback via remote network connection.

## ■ Tamper protection and temperature management integrated

This hybrid recording system is equipped with integrated sabotage protection, recognising camera re-positioning, covering, spraying and defocusing. The integrated temperature management reduces maintenance time and cost, ensuring true system protection.

## ■ Site plan feature for easy orientation in the monitored area

Cameras positioned in a site plan can be displayed easily via mouse click. This feature helps operating personnel to track suspicious people for example, without having to remember the next camera number.

## ■ UVV Kassen and Kalagate certification

SISTORE MX is certified as complying with the German Accident Prevention Regulations for Banks, UVV Kassen (the highest certification standard in Germany), which is required by every bank. Additionally SISTORE MX is certified by the Kalagate Imagery Bureau. Based in England, Kalagate independently certifies digital equipment verifying that the captured and stored images are admissible as evidence in criminal and civil judicial courts of law.

## Highlights

- Hybrid technology for easy migration from analogue to digital systems
- Recording up to 500 images per second
- Support of third-party and Siemens IP cameras
- Easy integration in other systems
- The German UVV Kassen and the UK Kalagate security certification

Public transport



Banks



Retail stores



# Comprehensive features that are simple to operate

## Flexible remote monitoring

In networked applications during an alarm condition, SISTORE MX can provide a direct link to the remote viewing software, to allow immediate access to the images over the network, or send SMS and if required an e-mail. This included RemoteView software can also perform a "site-tour" – automatically connecting and disconnecting to pre-defined remote sites allowing the operator to simply sit back and watch the tour on the monitor.

## Basic matrix switching

It is possible to have a total of 4 analogue monitor outputs – these can be used to switch any of the 32 analogue cameras, creating a basic 32 x 4 switcher. Monitors can be programmed to act as alarm monitors and SISTORE MX will automatically switch cameras upon alarm activation.

## Reference image

Benefiting both installers and end users is the facility to store a "reference image" of the installed camera – so should it be moved, maliciously or otherwise, or simply if it has to be serviced, there is an exact record of its viewing position.

## Various different display options

With the connection of up to 64 cameras possible, multiple screen display options are provided to the user to ensure the optimum viewing conditions, including widescreen monitors.

## Motion detection

To optimise hard disk storage, the pixel based motion detection system allows the user to define areas of interest in a scene and only when motion occurs inside this area, will the images be recorded.

## Covert camera mode

Any camera can be configured as a covert camera – it is then recorded but may only be viewed by users with sufficient security authorisation, such as the store manager. This feature is ideal for cameras monitoring cash registers in retail applications.

## Quick and easy searching

To ensure the fastest method of finding images, a mask can be defined in the area of interest, filtering the playback to only that area and ensuring no time is wasted watching hours of useless video. Also, there is the timeline search, showing all recorded images across the cameras, including showing movement detection, alarm triggers etc. – just drag the line to the time or date required – simple. Of course it is also possible to search according to standard criteria such as date, time, camera and logbook.

## Support of megapixel recording

SISTORE MX supports the recording of megapixel IP cameras. Megapixel recordings contain more information, particularly useful when using the integrated digital zoom feature.

## Highlights

- Various display options for optimum viewing conditions
- Flexible implementation of video analytics
- More information with megapixel recording

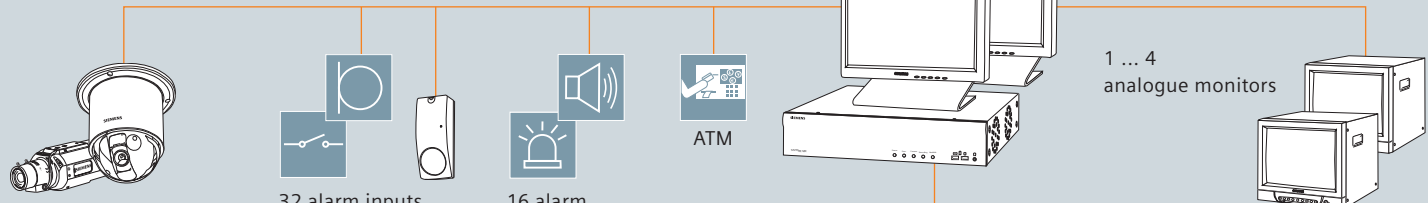
Various different display options



Motion detection



SISTORE MX 3G  
(plus 2 x DVI)



Up to 32 analogue cameras can be connected to the system; these can be a mixture of colour or mono, indoor or outdoor cameras, pan/tilt/zoom cameras, fixed cameras or speed dome cameras.

32 alarm inputs  
8 digital inputs  
1 audio input

The SISTORE MX has 32 alarm inputs, from which recording can be started or speed adjusted. The 8 digital inputs are reserved for specific alarm inputs e.g. UPS power failure, start/stop recording. The 16 alarm outputs are designed to connect to alarm systems, turn on lights or trigger a loudspeaker pre-recording. It is also possible to record a single audio channel linked to a pre-defined camera. An alarm input could also come from a Siemens intrusion detection system.

16 alarm outputs

ATM

1 ... 4 analogue monitors

Up to 4 analogue monitors can be connected to the SISTORE MX; as well as having the option to display covert or standard cameras, alarm images are also automatically displayed and switched between monitors, enabling flexible viewing of a whole site.

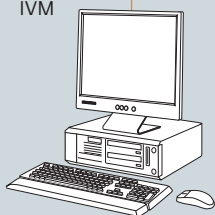
1 ... 16 RemoteView

RemoteView

Up to 16 RemoteView clients have access to SISTORE MX. Each RemoteView client can display the images of up to 10 SISTORE MX devices at the same time. The "site-tour" feature is an automatic, sequential connection to multiple SISTORE MX devices.

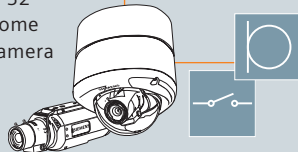
LAN/PSTN  
DSL/ISDN

IVM



IVM (Interactive Video Software) for integrated control of video systems. This management system allows the operator to control a security system via the graphical user interface.

1 ... 32 IP dome IP camera

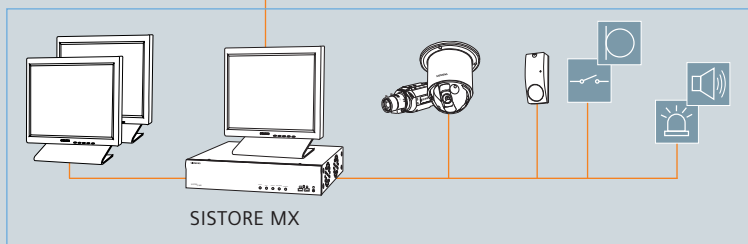


SiPass access control



Megapixel Camera

SISTORE MX can be connected to a SiPass access control system to enable quick and easy searches for events triggered in the SISTORE MX system (e.g. alarm inputs, alarm outputs, recordings, motion detection, etc.) using the SiPass software.



Quick and easy searching using timeline or filter.







# Additional features provided by SISTORE MX

## ■ Site plan feature

It can be difficult to remember all camera numbers and positions when managing a security system. SISTORE MX addresses this need with its enhanced site plan functionality, which provides a full visual overview of a facility. Site plans or photos of facilities can be loaded easily by adding the appropriate symbol for the camera position to the site plan. In addition, it is possible to add maps for individual rooms or floors, together with links that permit fast and easy switching between these. This feature allows security personnel to quickly and easily track suspicious people on the premises.

## ■ ATM surveillance with text integration

The serial interface with which SISTORE MX is equipped can be used to connect a variety of ATMs, therefore making the system specifically suitable for use in

banks and financial institutions. Recording can be triggered by e.g. access to the ATM area at night. Transaction data from the ATM can be stored with the video sequence for verification of the scene and happenings at a later date.

## ■ Cash register connection

Based on a special word filters placed on the data sent from the cash register as well as defined alarm filters, corresponding camera will be triggered to start recording. The same filter words can then be used as search criteria for subsequent research making the system suitable for use in shopping centres and retail applications.

## ■ Automatic backup

SISTORE MX can automatically backup full or partial video and audio recordings on an external drive. The time and days

of the week can be configured for backup. The user can choose whether to carry out full or incremental backup. As opposed to full backup, incremental backup is used to store all files that have been created since the last backup therefore requiring considerably less time and storage capacity on the target drive.

## ■ Multiple server operation

The new multiple server operation feature enables simultaneous access to several SISTORE MX devices from a remote operating station and therefore allows for monitoring several locations at the same time using RemoteView. Images from a specific camera are displayed by simply selecting the camera from the list. Up to 768 (8 x 96) cameras can be listed and live images from up to 36 (6 x 6) cameras can be displayed at once.



The site plan feature helps operating personnel track suspicious persons.





Simply add and position cameras on the site plan via drag and drop.



# Technical overview

	SISTORE MX 3208 250/200 SISTORE MX 3216 500/200 SISTORE MX 3232 1000/200	SISTORE MX 3208 250/200 DVD SISTORE MX 3216 500/200 DVD SISTORE MX 3232 1000/200 DVD
		
<b>Display</b>		
Video inputs (analogue)	8/16/32	8/16/32
Video inputs (digital IP/Ethernet)	32	32
Monitor outputs	3 (1 x VGA; 2 x BNC)	3 (1 x VGA; 2 x BNC)
Audio inputs/outputs	–	–
Video resolution (H x V)	384 x 288 (standard) 704 x 288 (high) 1280 x 960 (megapixel)	384 x 288 (standard) 704 x 288 (high) 1280 x 960 (megapixel)
Live display formats	1 (full screen), 2 x 2 (quad), 1+ 5, 3 x 3, 2+ 8, 4+ 9, 4 x 4, 6 x 6, 7 x 7 -1,	
Covert camera mode	■	■
<b>Recording and transmission</b>		
Recording speed	100 ips (analogue) 100 ips (digital)	
Recording standard	MJPEG	MJPEG
Transmission	MJPEG/MPEG4	MJPEG/MPEG4
<b>Alarms</b>		
Alarm inputs	32	32
Digital inputs	8	8
Alarm outputs	16	16
Video loss detection	■	■
Activity detection	■	■
Internal buzzer	■	■
Alarm log	■	■
Sabotage detection	■	■
<b>Controls</b>		
SmartSearch	■	■
PTZ/dome control	■	■
Fast forward/rewind controls	■	■
Pentaplex operation	■	■
<b>Connectivity</b>		
Ethernet LAN/WAN connector	■	■
External modem connector (ISDN)	via USB	via USB
RemoteView Software	■	■
Integrated to	SiPass, IVM, MM8000, GMA-Manager	
<b>Export/backup</b>		
Image export	■	■
Image backup/archive	USB to CD/DVD	USB to CD/DVD
Max. hard disk capacity (int.)	2 TB	1.5 TB

	SISTORE MX 3G 1608 1000/300 SISTORE MX 3G 1616 1000/500 SISTORE MX 3G 1608 2000/300 SISTORE MX 3G 1616 2000/500 SISTORE MX 3G 1608 4000/300 SISTORE MX 3G 1616 4000/500	SISTORE MX 3G DVD 1608 1000/300 SISTORE MX 3G DVD 1616 1000/500 SISTORE MX 3G DVD 1608 2000/300 SISTORE MX 3G DVD 1616 2000/500
		
<b>Display</b>		
Video inputs (analogue)	8/16	8/16
Video inputs (digital IP/Ethernet)	16	16
Monitor outputs	6 (4 x BNC; 2 x DVI)	6 (4 x BNC; 2 x DVI)
Audio inputs/outputs	–	–
Video resolution (H x V)	CIF/2CIF/4CIF (analogue) max. 5 megapixels depending on the camera (IP-cameras)	
Live display formats (Wide sreen)	1 (full screen), 2 x 2 (quad), 1 + 5, 3 x 3, 2 + 8, 4 + 9, 4 x 4, 6 x 6-4, 7 x 7 -1, 8 x 8	
Covert camera mode	■	■
<b>Recording and transmission</b>		
Recording speed	200 ips (analogue)/100 ips (digital) 400 ips (analogue)/100 ips (digital)	
Recording standard	MJPEG	MJPEG
Transmission	MJPEG/MPEG4	MJPEG/MPEG4
<b>Alarms</b>		
Alarm inputs	16	16
Digital inputs	4	4
Alarm outputs	4	4
Video loss detection	■	■
Activity detection	■	■
Internal buzzer	■	■
Alarm log	■	■
Sabotage detection	■	■
<b>Controls</b>		
SmartSearch	■	■
PTZ/dome control	■	■
Fast forward/rewind controls	■	■
Pentaplex operation	■	■
<b>Connectivity</b>		
Ethernet LAN/WAN connector	■	■
External modem connector (ISDN)	via USB	via USB
RemoteView Software	■	■
Integrated to	SiPass, IVM, MM8000, GMA-Manager	
<b>Export/backup</b>		
Image export	USB, DVD, FTP	USB, DVD, FTP
Image backup/archive	USB to CD/DVD	USB to CD/DVD
Max. hard disk capacity (int.)	4 TB	3 TB





SISTORYRE MX 3G – A new generation of hybrid video surveillance

■ **External storage expansion possibilities (e.g. RAID 1 or RAID 5/6)**

Should large video storage be required for longer recordings, the hard disk storage can be easily extended using network attached storage or an external RAID system.

■ **Interoperable with security systems from Siemens**

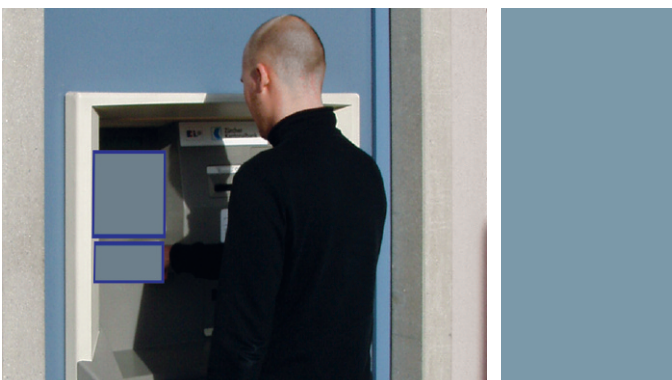
Utilising SiPass access control software from Siemens, operators have a clear overview of their buildings, including

open doors or windows. If either the access control or intrusion detection system trigger an alarm, SISTORYRE MX automatically starts recording the relevant camera located in the alarm zone area. The video images can be replayed as alarm verification directly in the SiPass software. Activating and deactivating of intrusion alarm zones is then also possible via SiPass software, as well as automatically restricting access control rights during an alarm situation.

**Highlights**

- Site plan feature for easy orientation in large monitored areas
- Connection of ATMs, barcode scanners, cash register for easy search of video images belonging to certain transactions
- Automatic backup for highest safety of data
- Connection RAID system or network storage system for extension of storage
- Interoperable with security systems from Siemens

Searching for video images belonging to certain transaction data.



# Answers for infrastructure.

## ■ Megatrends driving the future

The megatrends – demographic change, urbanization, climate change and globalization – are shaping the world today. These have an unprecedented impact on our lives and on vital sectors of our economy.

## ■ Innovative technologies to answer the associated toughest questions

Throughout a 160-year history of proven research and engineering talent, with more than 50,000 active patents, Siemens has continuously provided its customers with innovations in the areas of healthcare, energy, industry and infrastructure – globally and locally.

## ■ Increase productivity and efficiency through complete building life cycle management

Building Technologies offers intelligent integrated solutions for industry, commercial and residential buildings and public infrastructure. Over the entire facility's life cycle, our comprehensive and environmentally conscious portfolio of products, systems, solutions and services in the fields of electrical installation technology, building automation, fire safety and electronic security, ensures the:

- optimum comfort and highest energy efficiency in buildings,
- safety and security for people, processes and assets,
- increased business productivity.



Siemens Switzerland Ltd  
Industry Sector  
Building Technologies Division  
International Headquarters  
Gubelstrasse 22  
6301 Zug  
Switzerland  
Tel +41 41 724 24 24

Siemens Pte Ltd  
Industry Sector  
Building Technologies Division  
The Siemens Center  
60 MacPherson Road  
348615  
Singapore  
Tel +65 6490 6000

Siemens Ltd  
Industry Sector  
Building Technologies Division  
Units 1006-10  
10/F, China Resources Building  
26 Harbour Road  
Wanchai  
Hong Kong  
Tel +852 2870 7888

Siemens plc  
Industry Sector  
Building Technologies Division  
Brecon House  
Llantarnam Park  
Cwmbran  
NP44 3AB  
United Kingdom  
Tel +44 871 386 0800

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

© Siemens Switzerland Ltd, 2009