eco9

Low cost, low maintenance, easy to use, nine-camera DVMR

The Eco9 is a low cost, compact digital video multiplex recorder designed to replace the traditional VCR/ multiplexer combination bringing all the benefits of digital security monitoring to the dollar conscious retailer.

Designed to have the "look and feel" of a traditional CCTV system, the Eco9 offers up to 2 months on board recording. The user never needs to worry about rewinding, changing or replacing tapes as they wear out. When the available hard disk space is full, Eco9 automatically begins recording over the oldest video. Any periods of recorded video can be manually protected to prevent them from being overwritten.

The elimination of tape management issues and VCR maintenance costs means that Eco9 literally provides a fit and forget solution, with quick and easy access to recorded images if and when video needs to be reviewed.

Retailers and law enforcement agencies can benefit from Eco9's ability to copy incidents to the optional built-in CD-R. All hard disk recordings and images copied to CD provide tamper proof mechanisms approved for evidence. Playback of images from the CD is via a standard CD-ROM drive. The CD playback software will simply "auto-run" and does not require the installation of software on the users PC.

The option to have a second live monitor display acts as a visible deterrent to external theft, while adding an increased safety measure for customers and employees. Internal theft issues are addressed via the Eco9's covert camera option.

Among the many features also included as standard on Eco9 are multiway display, picture in picture viewing, password protected access, out of hours remote monitoring using free network viewing software, and Dedicated Micros trade mark plug and play set-up with user-friendly interface to keep installation and operator training to a minimum.

For further information, please visit the website: www.dedicatedmicrosus.com or contact customer service in your region.

benefits

- **LOW COST ENTRY LEVEL DIGITAL SOLUTION FOR SMALL BUSINESS APPLICATIONS**
- **QUICK AND EASY TO INSTALL**
- **MODELS WITH INTERNAL CD-R AVAILABLE**
- **NO VCR TAPES OR MAINTENANCE**
- **SECOND LIVE DETERRENT SPOT MONITOR OUTPUT**
- **SIMULTANEOUS RECORD, PLAYBACK, BACKGROUND IMAGE ARCHIVING, REMOTE VIEWING AND PLAYBACK WITH NO LOSS OF PERFORMANCE**
- **FAST ACCESS OF UP TO TWO MONTHS RECORDING IN ONE BOX**
- **HIGH SPEED RECORDING OF UP TO 30PPS (NTSC) 25PPS (PAL)**
- **FULL REMOTE CONTROL AND OBSERVATION OVER LOCAL ETHERNET, BROADBAND INTERNET OR DIAL UP MODEM CONNECTION.**
- **MULTISCREEN, QUAD DISPLAY AND PICTURE IN PICTURE VIEWING**
- **BUILT IN VIDEO MOTION DETECTION**

data sheet

Specification

LANGUAGES
English, French, German, Spanish, Italian, Chinese, Russian, Czech, Polish, Dutch, Hungarian, Swedish and Croatian.

CAMERAS
9 camera inputs available.
Loop through BNC connectors provided for each of the camera inputs, with software configured termination.
Cameras auto detected on power up.
Relay trigger option on camera fail.

HIDDEN CAMERAS
Option to view all or selected cameras, without affecting cameras recording.

MONITOR VIEWING
Main monitor:
Full screen, programmable sequence.
Programmable picture-in-picture, quad.
x2 electronic zoom on live images, freeze frame.
Mon A: Composite video BNC connector.

Spot monitor:
Full screen, programmable sequence.
Mon B: Composite video BNC connector.

SCHEDULING
Choice of day, night or weekend offers the ability to automatically:
- Switch activity on/off
- Alter the record rate for standard, alarm and activity recording
- Activation is via timer

ACTIVITY DETECTION
Programmable 16 x 8 masking grid for each camera view. 5 levels of sensitivity.

Options:
- Trigger light duty relay output 500mA @ 20V max

ALARMS
1 normally open global alarm contact available via back panel.
- Trigger light duty relay output 500mA @ 20V max

SEARCH AND PLAYBACK
VCR style keys offer:
- One touch playback.
- Frame advance/rewind, fast picture search and pause keys
- Event list, including event list filter with unique quadrant preview facility
- GOTO time and date
- Playback in quad, picture in picture and full screen

RECORDING
Playback and record to hard disk simultaneously.

Internal hard disk options:
Standard model offers a single 80GB hard disk.
Versions are also available with 160GB or 300GB.

Hard disk sizes are rapidly increasing in capacity. Please contact customer service or DM web site, for latest available disk size configurations for Eco9.

Protected images:
The end user can manually configure sections of recorded images to be permanently protected from overwrite. The system can also be configured to protect images automatically when the global alarm is activated.

The table below shows the disk size required for low medium and high image qualities, at the equivalent of 24 hour record speeds - 6 pictures per second (across all cameras).

	IMAGE QUALITY*		
	LOW	MEDIUM	HIGH
	14K	18K	25K
RECORD DURATION	DISK SIZE		
1 day	9GB	11GB	14GB
7 days	53GB	68GB	94GB
31 days	231GB	297GB	N/A

*Please refer to our record calculator on the DM website for other possible calculations

RECORD RATE
Maximum record rate up to 30pps (NTSC) and 25pps (PAL)

TIMED EXPIRY
- Timed expiry option allows images to be held for a selected number of days
- Images on the disk, which are older than the number of days, selected are not accessed

EVENT COPYING
Event sequences and user defined recorded sequences can be saved to the internal CD-R drive of Eco9 (or an external CD-R* connected to the SCSI port for models without CD). The sequences of images are digitally signed for authentication purposes. Playback of images from the CD is via a standard CD ROM drive. The CD playback software will auto-run and does not require the installation of software on the users PC.

* Please check the website for compatible CD-R products.

DIGITAL SIGNATURE
The use of digital signatures makes it possible to detect whether single image or a sequence of images have been tampered with.

ECO9 NETWORKING CAPABILITIES
Standard Ethernet connection provides live and recorded viewing on a networked PC using DM's Network Viewer Software or via web pages using Internet Explorer. Network viewing is independent and does not affect the recording or local operation. The amount of bandwidth the Eco9 uses on the network can be adjusted by the bandwidth limitation option. Network Viewer software features include:
- Live full, quad or multiway format screens
- VCR style fast forward and rewind, playback and frame advance/rew
- GOTO time and date and unique quadrant event review
- File export of digitally signed images over the network using Network Viewer software
- Copy single images as JPEG and sequences of images as AVI to save to PC
- Configurable password protection

Web pages features include:
- Viewing of live images in single, quad or multiway format.
- Playback in single, quad or multiway format including GOTO function.
- Password authentication.
- Web pages are also compatible with Mac and Linux Netscape browsers version 4.7X and 4.8

NETWORK REMOTE SUPPORT
Enables system adjustments to be made remotely over the network. One user may connect to the unit in a password protected admin mode that allows access to menus, as they appear on the unit themselves. System adjustments can then be made remotely over the network, such as changing the record rate, set-up of the activity grid, configure the schedule and more – without the need for a site visit.

COLOR RESOLUTION
Sampling rate: 13.5 MHz to CCIR 601
Number of pixels:
NTSC 720h x 448v
PAL 720h x 512v
16.8 million colors 256 levels of grey, 8-bit luma.

COMPRESSION
JPEG format files.
User definable file compression size.

Eco9 DATA
RS-232 serial port.
SCSI 2 narrow 50 pin high density connector.
1x Ethernet RJ-45 10base-T connection.

CD-R
DVMR with CD:
Built-in slim-line CD-R for Compact Disk Recordable Media.

DVMR without CD:
Use optional external SCSI CD-R.

TEMPERATURE RANGE
Operating temperature 41-113 °F (5 – 45°C)

RELATIVE HUMIDITY
5% - 85% Non-condensing.

DIMENSIONS
DVMR
2 5/8"(H) x 17 5/16" (W) x 16 1/8" (D).
66mm (H) x 440mm (W) x 409mm (D).

WEIGHT
DVMR without CD
12.2lbs (5.7Kg) without PSU
13lbs (5.9Kg) with PSU

POWER SUPPLY
Input Voltage:
100 – 230 VAC 50/60 Hz.
Output Voltage: 5, +12, -12 VDC

ORDERING INFORMATION	
DESCRIPTION	SHORT CODE
BUILT-IN CD-R MODELS	
9 camera color duplex with CD 30 PPS 80GB	**Eco9 CD – 80GB**
9 camera color duplex with CD 30 PPS 160GB	**Eco9 CD – 160GB**
9 camera color duplex with CD 30 PPS 300GB	**Eco9 CD – 300GB**
STANDARD MODELS	
9 camera color duplex 30 PPS 80GB	**Eco9 – 80GB**
9 camera color duplex 30 PPS 160GB	**Eco9 – 160GB**
9 camera color duplex 30 PPS 300GB	**Eco9 – 300GB**

Please contact customer service for latest available disk sizes.

PLEASE CHECK THE WEBSITE FOR DETAILS OF COMPATIBLE SCSI CD-R PRODUCTS AND OTHER LATEST DEVELOPMENTS

FOR FURTHER INFORMATION PLEASE CONTACT

DEDICATED MICROS
www.dedicatedmicrosus.com