One Terabyte Storage in Kalatel's most advanced Triplex DVMR*e*

DVMRe Triplex offers uninterrupted recording, motion search, higher image capture rate and transaction text insertion.

DVMR*e* Triplex is the top of line digital multiplexer/ recorder designed to exceed your expectations of a surveillance recording system. The popular Triplex functionality has been taken one step further with new features that put the DVMR*e* Triplex in a class by itself.

Without disturbing recording, live and recorded images can be viewed simultaneously on separate monitors or combined onto one monitor. No longer will you miss important events because you are reviewing stored images. In the event of power outage the DVMR*e* Triplex retains all camera-to-cameo assignments in non-volatile memory so all screen configurations will be re-established once the system is powered up.

And there will be more, clearer images for review. By utilizing Parallel Video Process (PVP), DVMR*e* Triplex can record up to 60 pictures-per-second (pps). This rate is twice as fast as many other digital recorders and three times faster than most muliplexer/VCR combinations. These images will be archived in the system's 1 terabyte hard drive, improving your ability to store and access record images.

The DVMR*e* Triplex offers improved search and alarm features. The system can search for movement in a target grid on recorded images over a specific time period. The search will return all hits of recorded movement in the target grid. The process is quick and easy with minimal setup.

The DVMR*e* Triplex can better interface with electronic cash registers and ATMs to prevent theft and inventory shrinkage. The ProBridge interface captures and references transaction text data associated with recorded video. You can search by transaction number or any other receipt text to instantly retrieve video associated with the reference. When the event is found, the scene can be selected to automatically begin playback.

Another improved search capability is the Disk Analysis Screen. This feature provides,

Continued on page 2

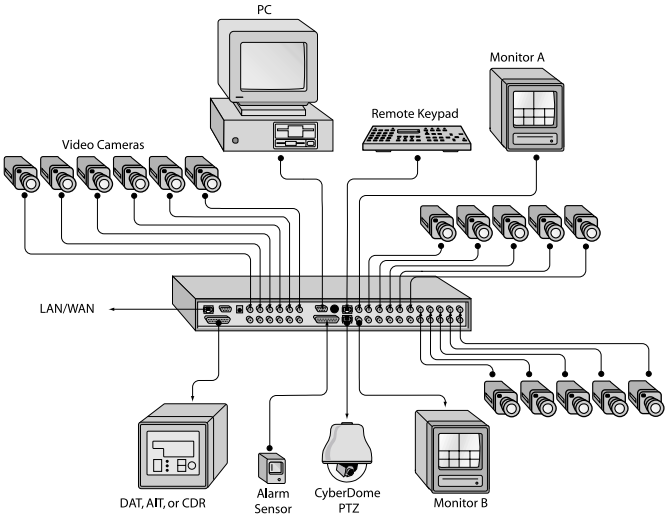
Features

- Triplex™ capability enables users to watch live and recorded images on one monitor while continuing to record
- Parallel Video Processing (PVP) for ultra-fast recording up to 60 pps (50 pps PAL)
- Search video clips using motion search to find motion in a user-defined area
- Jog/shuttle control provides variable-speed forward and reverse play and frame-by-frame scrutiny of a paused recording
- Graphical disk analysis screen display for improved recorded data analysis
- Dual multiscreen monitor displays for live viewing and playback
- Multiplexer functionality with built-in digital recording
- Ethernet LAN/WAN capability, TCP/IP protocol
- View live or recorded images remotely using WaveReader™ software
- PTZ over Ethernet capability provides remote PC control of PTZ units
- ATM interface associates ATM receipt text with corresponding video, enabling searches by ATM transaction number or any other text on a customer's receipt

GE Interlogix
Kalatel

Product Specification

System Diagram



The DVMRe Triplex can accommodate 4, 10, or 16 cameras. Using two monitors, the user can view live multiscreen images as they are being recorded and multiscreen playback of recorded images simultaneously. The unit can archive to a DVSe/DAT/RAID/AIT/CD-R through the SCSI port. LAN/WAN connection is through an RJ45 connector. External alarm sensors can be connected via the terminal blocks on the DB25 breakout board (included). It can be remotely controlled by a PC or foreign host using an RS232 port. Up to 32 DVMRes and keypads can be connected to the same RS485 network.

Continued from page 1

at the unit, color-coded bars indicating per-camera info of events, alarms, activities, and video loss. You have the ability to zoom into a selected area to expand the time window under investigation.

The system also offers E-mail notification once an alarmed is triggered. A message is sent to your PC, PDA, cell phone, or pager. You will immediately know the location and the nature of the alarm.

Front panel controls are user friendly and intuitive for simple operation, combining the look and feel of classic multiplexer and VCR controls. For example, record and playback functions emulate a security VCR. The built-in jog/shuttle dial's outer ring provides variable-speed forward and reverse play. The inner dial moves through a paused recording frame by frame. The DVMR*e* Triplex is configured with simple on-screen menus.

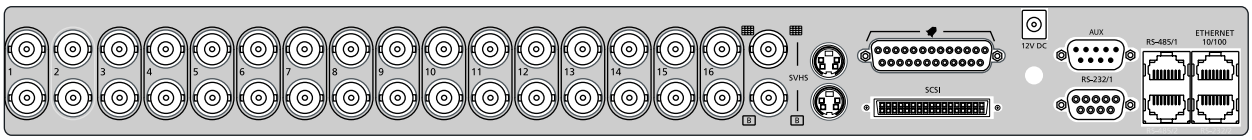
Users can set up individual cameras to record in time-lapse mode, event mode, or both modes at different rates.

The DVMR*e* Triplex is Ethernet-ready. Up to 20 users can connect simultaneously, with one user viewing playback of recorded images, and 19 others viewing live images. Operators can also use a modem to connect to a remote DVMR*e* Triplex over standard telephone lines. When connected, users can view live or recorded images, all while continuing to record. With WaveReader software (included with every unit), users can select and post images or clips to the network; store, print, and e-mail images; and store video clips. Wavelet video compression makes it possible to archive compact files with high image resolution, and a secret watermark ensures the integrity of each recording.

Using a desktop or laptop PC and WaveReader software, users can watch live or recorded video from any DVMR*e* in their network and even control PTZ units connected to the DVMR*e*. This enables users to remotely pan, tilt, zoom, and manually focus the camera. Additionally, users can remotely create or select a camera preset. Almost anything you can do with the keypad controllers, you can now do with WaveReader and a remote PC, including setting up a unit and recording the unit configuration for backup or cloning similar configurations. Users no longer have to drive to a remote site and spend hours searching VCR tapes for critical events. On-screen menus and WaveReader software enable users to search by alarm, time, date, camera number, and text from ATM machines, cash registers, EAC's, and other similar devices.

Additionally, WaveReader software's WaveStudio feature enables users to adjust various image enhancement controls, such as intensity, contrast, hue, saturation, and noise level, making it easier to scrutinize each image. Optional digital recording accessories such as the DVS*e*, DAT, AIT, CD-R, or RAID enable users to automatically archive continuous recordings, images, and video clips.

Rear Panel Connections



Recording Capacity Charts

40-GB Storage Capacity (NTSC)

Record Mode		2 hr plus	2 hr	12 hr	24 hr	48 hr	72 hr	168 hr	960 hr
		60 pps	30 pps	10 pps	5 pps	3 pps	2 pps	1 pps	0.125 pps
Resolution	High	7 hr	13 hr	40 hr	3.4 days	6.7 days	10.1 days	23.6 days	134.7 days
	Medium	9 hr	19 hr	56 hr	4.6 days	9.3 days	13.9 days	32.4 days	185.2 days
	Standard	15 hr	30 hr	3.7 days	7.4 days	14.8 days	22.2 days	51.9 days	296.3 days

80-GB Storage Capacity (NTSC)

Record Mode		2 hr plus	2 hr	12 hr	24 hr	48 hr	72 hr	168 hr	960 hr
		60 pps	30 pps	10 pps	5 pps	3 pps	2 pps	1 pps	0.125 pps
Resolution	High	13 hr	27 hr	3.4 days	6.7 days	13.5 days	20.2 days	47.1 days	269.4 days
	Medium	19 hr	37 hr	4.6 days	9.3 days	18.5 days	27.8 days	64.8 days	370.4 days
	Standard	30 hr	59 hr	7.4 days	14.8 days	29.6 days	44.4 days	103.7 days	592.6 days

160-GB Storage Capacity (NTSC)

Record Mode		2 hr plus	2 hr	12 hr	24 hr	48 hr	72 hr	168 hr	960 hr
		60 pps	30 pps	10 pps	5 pps	3 pps	2 pps	1 pps	0.125 pps
Resolution	High	27 hr	54 hr	6.7 days	13.5 days	26.9 days	40.4 days	94.3 days	538.7 days
	Medium	37 hr	3.1 days	9.3 days	18.5 days	37.0 days	55.6 days	129.6 days	740.7 days
	Standard	59 hr	4.9 days	14.8 days	29.6 days	59.3 days	88.9 days	207.4 days	1,185.2 days

320-GB Storage Capacity (NTSC)

Record Mode		2 hr plus	2 hr	12 hr	24 hr	48 hr	72 hr	168 hr	960 hr
		60 pps	30 pps	10 pps	5 pps	3 pps	2 pps	1 pps	0.125 pps
Resolution	High	54 hr	4.5 days	13.4 days	27 days	53.8 days	80.8 days	188.6 days	1,077.4 days
	Medium	3.1 days	6.2 days	18.6 days	37 days	74 days	111.2 days	259.2 days	1,480 days
	Standard	5 days	9.8 days	29.6 days	59.2 days	118.6 days	177.8 days	414.8 days	2,370 days

Technical Specifications

Inputs

Camera:	4, 10, or 16 looping BNC connectors, NTSC/EIA or PAL/CCIR compatible; auto-terminating
Conditioning:	AGC, 0.5 to 2.0 V pk-pk video accepted
Termination:	Automatic, 75 ohm or Hi-Z if looped
RS232 Port 1:	DB9 male connector. For POTS, remote control and front panel emulation
RS232 Port 2:	RJ45 connector for ASCII text insertion and event generation

Video Outputs

Monitor A Y/C:	One monitor A multiscreen output. S-VHS, 4-pin mini-DIN connector.
Monitor A Composite:	One monitor A multiscreen output, BNC connector, NTSC/EIA or PAL/CCIR compatible
Monitor B Y/C:	One monitor B multiscreen output; S-VHS, 4-pin mini-DIN connector
Monitor B Composite:	One monitor B multiscreen output, BNC connector, NTSC/EIA or PAL/CCIR compatible

Archive

Archive Device Type:	Calibur DVSe, DAT, AIT, RAID, CD-Writer*
SCSI 2:	One 50-pin SCSI-2 port
Connector:	DB 50-S-SCSI (reversed)
	*Call Kalatel for recommended models.

Network

Type:	10/100 Ethernet (auto-sensing); one RJ45 connector

Video

Display Memory:	2048 x 1024 memory array per monitor; 32 Mb total display memory
Colors:	YUV 4:2:2, 16.8 million colors
Grayscale:	256 levels
Horizontal resolution:	720 pixels
Vertical resolution:	484 active lines NTSC/EIC, 576 active lines PAL/CCIR

Alarm Handling

Alarm inputs:	4, 10, or 16 programmable NO or NC in menus
Alarm outputs:	Two form-C relays, each NO and NC; rated 0.5 A continuous, 1.0 A momentary
Alarm latching:	Three settings: latched, transparent, timed-out; programmable 1-100 sec
Alarm recording:	Programmable priority control: interleaved, exclusive, or none
Alarm displays:	Automatic alarm multiscreens; programmable

Video Motion and Activity Detection

Zones per camera:	256, 16 x 16 grid
Sensitivity settings:	10 levels
Gray levels per zone:	256 levels
False alarm rejection processing:	3 levels
Size discrimination:	256 levels
Activity record speed:	Programmable per camera
Status output:	Link to relay

Recording

Hard drive:	40 GB standard to 1 Terabyte optional
Record speed:	Selectable; 60 pps (50 pps PAL) to 0.125 pps; event, time lapse, or both
Compression:	Wavelet format; standard-, medium-, and high-quality settings selectable per camera

Miscellaneous

Input voltage:	12 VDC, 90 V - 264 V AC/DC adapter included
Power:	35 W nominal
Temperature:	0 to 40 °C (32 to 104 °F), operating
Relative humidity:	90 percent, noncondensing
Dimensions:	17.42 x 13.50 x 2.486 in. (442.47 x 343.00 x 63.14 mm) 1 1/2 U, 19 in.
Weight:	9 lb (4 kg)

Ordering Information

DVMRe-4CT, 10CT, or 16CT:	Triplex, color, NTSC/EIA
DVMRe-4CTX, 10CTX, or 16CTX:	Triplex, color, PAL/CCIR
KTD-405:	Optional remote keypad, includes motorized PTZ control capabilities
CBR-KB3(X):	Optional remote keypad, includes motorized PTZ control capabilities
CBR-KB3/J(X):	Same as CBR-KB3 but with proportional joystick control
CBR-RK6:	Optional 1U rack-mount kit
CBR-PB2:	Optional ProBridge for PTZ applications (contact Kalatel for available models)

GE Interlogix
Kalatel

Mailing Address
Kalatel
4575 Research Way, STE 250
Corvallis, OR 97333, USA
www.kalatel.com

Americas
800-469-1676 (US only)
tel 541-754-9133
fax 541-754-7162

Asia
tel 852-2907-8108
fax 852-2142-5063

Australia
tel 61-3-9259-4700
fax 61-3-9259-4799

Europe
tel 32-2-725-11-20
fax 32-2-721-86-13

Latin America
tel 561-912-5321
fax 561-994-6224

Document: 1037232D / November 2002