



### Features

- 400 pictures per second
- 12 or 16 camera inputs (upgradeable)
- MPEG4 compression
- CIF, 2CIF and 4CIF (D1) image quality options
- Cascade multiple DVRs for up to 256 cameras and 64T bytes of storage
- 500 Gbytes to 4Tbytes (upgradeable)
- Dual removable hard drives (SATA) with key lock
- Built-in DVD writer for backup
- USB ports for backup
- VGA and BNC monitor outputs
- 4 independent monitor outputs (main and three spot monitors)
- Simultaneous record and play
- Alarms and activity detection
- Covert cameras (hidden)
- Dual channel audio
- Up-the-coax and RS485 dome control built in
- Video loss and cloak detection
- Digital authentication
- Ethernet for remote IP viewing on a PC
- Password protected menu
- Supports remote keyboard with BNC monitor output via CAT5
- Watchdog timer protection
- Double fan-cooled for high reliability
- Not PC or Windows based
- Manufactured in the UK

### Order Codes

Vi-M416G500	Digital Recorder, 16 Cameras, 400pps, 500G
Vi-M416T1	Digital Recorder, 16 Cameras, 400pps, 1T
Vi-M416T2	Digital Recorder, 16 Cameras, 400pps, 2T
Vi-M416T4	Digital Recorder, 16 Cameras, 400pps, 4T

### Accessories

Vi-K1	Remote Keyboard
Vi-K2	Joystick Keyboard
Vi-K3	Enhanced Joystick Keyboard
Vi-E2	8-way Star Expander
Vi-E5	M-series 16-way Port Expander, 1U
Vi-RA11	19" Rack Adaptor, 3U
Vi-Viewer	IP viewer (included)
Vi-ViewerPro	Advanced IP viewer with maps

### Overview

The Vi-M series Digital Video Recorders (DVR) use the latest MPEG recording technology to compress the maximum amount of video at the highest quality and the highest frame rates onto the hard drives. At the same time the latest SATA hard drives are used, providing reliability and a wide choice of capacity to suit the needs of the installation and the budget. Hard drives in all Videoswitch DVRs are removable to allow easy replacement and upgrade. Automatic monitoring of drives is featured and the user is alerted if replacement is due.

Videoswitch Digital Video Recorders (DVR) are designed and manufactured in the UK to the highest quality standards by Videoswitch, the leading UK digital recorder manufacturer. Users have the reassurance of a premium brand name and a stable and reliable UK built product, backed up by both pre-sales and post-sales technical assistance and long term product support.

Videoswitch maintains stability in the product range so users can therefore commit to roll-outs that may extend over many months in the knowledge that models will not become unavailable during the process. When new products are designed, we aim to maintain familiarity of operation in the keys and menus so users can readily switch to newer models.

Videoswitch provides hardware and software upgrades so installed products benefit from subsequent improvements and additions of features in the future. This includes upgrading of hard drive capacity, increasing the number of camera inputs and the addition of new software features. Most upgrades can be performed in-situ without having to remove the product.

Videoswitch, Ocean House, Redfields Industrial Park, Redfields Lane, Church Crookham, Hants GU52 0RD

[www.videoswitch.co.uk](http://www.videoswitch.co.uk)

Tel: 01252-851510 Fax: 01252-851296 Email: [sales@videoswitch.co.uk](mailto:sales@videoswitch.co.uk)

This product is designed and manufactured to the highest standards within our ISO9000 certified quality assurance system. It is certified to meet the CE mark requirements in accordance with the 89/336/EEC Electromagnetic Compatibility and 73/23/EEC Low Voltage directives. Due to a policy of ongoing product development, specifications may change without notice.



Vsd550E

## Technical Data

### Storage

Hard drives (x2) SATA, dual hard drives, 500G to 4Tbytes (upgradeable)  
 DVD/CD writer Quick and easy backup to DVD or CD using just a few key presses. DVD/CDs play back on both DVR and PC (without software installation)  
 USB External USB storage devices (e.g. memory sticks) may also be used for backup

### Digital recording/Replay

Camera inputs 16 (with loop-through)  
 Maximum record rate 400 pictures per second (CIF), 200 (2CIF/4CIF)  
 Image retention 1 to 999 days, image rate calculated automatically or set via menu  
 Colour/Monochrome Auto sense  
 Video gain Auto (AGC)  
 Record resolution 704 x 576 (4CIF), 704 x 288 (2CIF), 352 x 288 (CIF)  
 Display resolution 720 x 576 pixels x 16.8 million colours  
 Average image size 3k to 20k bytes  
 Compression method MPEG4  
 Hardware/Software Embedded processor, proprietary Videoswitch software  
 Simultaneous processing Record, Live, Play, Remote and CD/DVD backup  
 Image authentication Every image is tagged with time, date, image number and other information and is protected with a digital security signature for authentication  
 Video inputs 0.5 to 1V pk-pk, 75 Ohms (switchable via menu), composite PAL (BNC)

### Display

Main monitor output VGA and 1V pk-pk composite PAL (BNC), full screen, quad, 9-way split, 16-way split, programmable titles  
 Spot monitor outputs 3 independent full screen outputs, 1V pk-pk composite PAL (BNC)  
 Auto sequencing 1-99 seconds, full and quad, main and spot monitors  
 Covert (hidden) Any cameras may be hidden from view on the monitors

### Control and Interface

Keypad 35 keys  
 Keyboard ports (x2) RS485 ports, with built-in balun for twisted pair video connection to remote keyboard with attached monitors  
 Cascade port RS485 port for linking to another DVR  
 Passwords 4 passwords with fully programmable rights  
 Search modes Date/time search, event log  
 Timers Record, alarm and activity (weekday and weekend)  
 Alarm inputs 16 inputs, normally open or normally closed volt-free contacts  
 Motion detection 16 x 12 zones, programmable sensitivity  
 Relays 2 relays, 24Vdc, 200mA max normally open or closed  
 Alarm/activity response Pull-up full screen display, programmable record rate  
 Event log Alarm, activity and system events  
 Incident list Up to 10 incidents may be saved onto one CD/DVD  
 Dome control Up-the-coax (BBV) and RS485 (Videoswitch VXP4, PelcoD)  
 Watchdog timer In the event of any unexpected condition, the system will automatically recover

### Remote Viewing

Ethernet 100baseT, TCP/IP, for LAN, WAN, broadband. View on PC using ViViewer, ViViewerPro, Internet Explorer

### Power, Physical & Environmental

Power input 90-265 Vac input, 47-63Hz, 100W  
 Temperature 5 to 35deg C (operating), -10 to 40deg C (storage)  
 Humidity 10 to 90% non-condensing  
 Dimensions/Weight (Unit) 355mm x 105mm x 400mm (WxHxD), 6kg  
 Dimensions/Weight (Boxed) 455mm x 205mm x 500mm (WxHxD), 8kg

### Accessories Included

Cables Mains (IEC/13A), Ethernet (CAT5)  
 Other accessories Vi-X16 Alarm/Relay break-out module, drive keys, blank CDs, user manual  
 PC Software "Vi-Viewer" remote access IP Viewer

### Upgrades

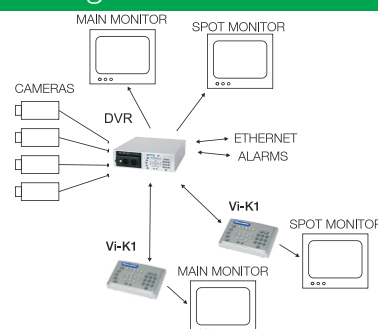
Firmware upgrades Available on CD and the Internet (free of charge)  
 Hard Drive Upgrades Replacement and upgrade hard drives available  
 Camera input upgrades The number of camera inputs can be upgraded up to 16

## Technical Data

The table below show examples of the relation between record image rates, hard drive capacity and number of days data retention. Divide by number of cameras to get the rate per camera. These examples are based on 6k image size.

Capacity	100pps	200pps	400pps
500 Gbytes	9.6 days	4.8 days	2.4 days
1 Tbytes	19 days	9.6 days	4.8 days
2 Tbytes	38 days	19 days	9.6 days
4 Tbytes	76 days	38 days	19 days

## Example Configuration



Videoswitch, Ocean House, Redfields Industrial Park, Redfields Lane, Church Crookham, Hants GU52 0RD

[www.videoswitch.co.uk](http://www.videoswitch.co.uk)

Tel: 01252-851510 Fax: 01252-851296 Email: [sales@videoswitch.co.uk](mailto:sales@videoswitch.co.uk)

This product is designed and manufactured to the highest standards within our ISO9000 certified quality assurance system. It is certified to meet the CE mark requirements in accordance with the 89/336/EEC Electromagnetic Compatibility and 73/23/EEC Low Voltage directives. Due to a policy of ongoing product development, specifications may change without notice.



Vsd550E