



Divar XF Series Digital Video Recorder



- ▶ **Real-time recording and playback in genuine 4CIF resolution**
- ▶ **Advanced H.264 hardware compression**
- ▶ **Integration with the Bosch Video Management System and third party management software using VideoSDK**
- ▶ **Local storage on four front-accessible hard drives**
- ▶ **Control Center software for centralized remote viewing, playback, and configuration**

The Divar XF offers top-of-the-line performance and adaptability. Equipped with four front-replaceable HD drives and extensive integration features, the XF is ideal for medium to large-scale or growing systems. Divar XF's superior image quality and compression gets the most out of CCTV images.

Functions

High performance

With real-time viewing, recording, and playback in genuine 4CIF resolution, Divar captures all the details. More detail typically means increased bandwidth, bigger storage requirements, and increased costs – but not with Divar. Bosch's advanced H.264 compression technology used in the Divar XF reduces bandwidth and storage needs by up to 30% compared to traditional MPEG-4 systems.

Embedded design

The embedded design of the Divar XF offers a higher level of security against network attacks than traditional systems and has lower maintenance requirements. The security of recordings remains high, while the need to install software patches and anti-virus updates is eliminated. Simple to set up and operate, the integrated architecture of the Divar XF makes life easier for both installers and users.

Power to adapt

The world of CCTV is changing – IP is replacing the analog standard in many areas. Divar XF has the power to adapt to this changing environment.

Easily integrate the Divar XF into any Bosch IP network surveillance system using Bosch's Video Management System (VMS). Obtain comprehensive, centralized control over an entire CCTV system, including cameras and storage devices.

Bosch's VideoSDK provides a complete toolbox of modules for playback, searching, viewing live images, and more – simplifying integration to other surveillance systems. The VideoSDK even allows integration with specialized software tools such as fraud detection programs for retail applications.

Controlling Divar XF can be automated using CLI (Command Language Interface) commands. This allows Divar XF to be interfaced with external software (over RS232 or IP), which is typically used to sense alarms or handle access control on an existing (embedded) computer system. Functions include front panel emulation, configuration, and viewing status information. For instructions on how to use the CLI, please refer to the documentation on the Bosch Security Systems website.

Ease-of-use

Divar XF’s four internal hard drives can be accessed via the front without opening the unit, simplifying service and making it easy to add additional storage on-site when needed. Export recordings by simply downloading them to a USB memory device or export them remotely via the Control Center software. Divar XF makes it easy to manage and transport images.

Divar’s intuitive interface with clear, menu-driven options is quick to learn and easy to use. Choose from a selection of control devices, including a mouse or CCTV keyboard. Flexibility is also abundant with Divar XF’s extensive range of advanced functionality. Other convenient features include remote playback capability and dual VGA monitor support.

Live viewing, playback, configuration, remote management – it’s all simple and straightforward with the Divar XF.

Comprehensive interfaces

Flexible interface options make it easy to connect to a variety of external devices.

- Up to 16 video input and output channels
- Up to 16 audio inputs and two dual-mono audio outputs
- Dual monitor output on VGA, BNC, and Y/C outputs
- Ethernet 10/100BaseT network connection
- Up to 16 alarm inputs and and 8 outputs
- Biphase connection allows one cable to control Bosch PTZ cameras at a range of up to 1.5 km / 0.9 miles
- Third-party PTZ control via RS422/RS485 connection (Pelco D protocol)
- USB connectors front and back – connect a mouse to control the user interface, or archive video to a USB memory stick or similar device

Applications

The Divar XF is ideal for:

- Shopping centers and retail applications
- Banks and financial institutions
- City centers and public monitoring applications
- Crowd surveillance
- Casinos and hotel complexes

Certifications and Approvals

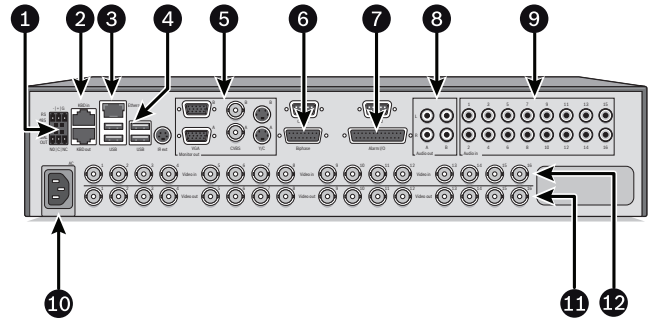
Electromagnetic compatibility

USA	FCC Part 15, Class B
EU	EMC directive 2004/108/EC
Immunity	EN50130-4
Emission	EN55022 Class B
Mains Harmonics	EN61000-3-2
Voltage fluctuations	EN61000-3-3

Safety

USA	UL60950-1
EU	EN60950-1
Can	CSA C22.2 No. 60950-1

Installation/Configuration Notes



- 1 RS485 / RS422 / Malfunction alarm
- 2 Keyboard
- 3 Ethernet
- 4 USB ports
- 5 A + B monitor connections (VGA, CVBS, Y/C)
- 6 Biphase connection
- 7 Alarm inputs/outputs
- 8 Audio outputs
- 9 Audio inputs
- 10 Power input
- 11 Camera loop through
- 12 Camera video inputs

Recommended PC requirements for Control Center

Operating system	Windows XP or Vista
	DirectX 9c
Processor	Intel Pentium DualCore, 3.0 GHz or comparable
RAM memory	2048 MB or more
Free disk space	10 GB
Graphics card	NVIDIA GeForce 8600 or higher
Network interface	10/100-BaseT network interface
Operating system	Windows XP or Vista

Parts Included

Quantity	Component
1	Divar XF digital versatile recorder
2	Power supply cords
1	USB mouse
1	CD-ROM containing the software and manuals
1	Quick installation guide
1	Installation manual
1	Divar XF operation manual
1	Divar XF Control Center and Archive Player operation manual

Technical Specifications

Electrical

Rated Voltage and Power

Power input	100 to 240 VAC; 50/60 Hz
Power consumption	Max. 2.5 to 1.0 A (250 Watt)

Video

Video standard	PAL or NTSC auto-detection
Resolution	704x576 PAL, 704x480 NTSC
Compression	H.264
Inputs	8 or 16 composite video 0.5 to 2 Vpp, 75 ohm automatic termination
Outputs	8 or 16 composite video 1 Vpp, 75 ohm, sync 0.3 V ± 10%

Audio

Inputs	8 or 16 line in, mono RCA, 1 Vpp, 10 kohm
Output	2 line out, dual mono RCA, 1 Vpp, 10 kohm
Compression	MPEG-2 layer II
Sampling rate	48 kHz per channel

Monitors

MON-A	Live, playback, menus
	VGA: analog RGB 1280x1024, 60/75 Hz (NTSC/PAL)
	CVBS: 1 Vpp, 75 ohm, BNC
	Y/C
MON-B	Live
	VGA: analog RGB 1024x768, 60/75 Hz (NTSC/PAL)
	CVBS: 1 Vpp, 75 ohm, BNC
	Y/C

Display Modes

Monitor A	Full, full sequence, quad, multi-screen (live and playback), event call-up (live)
Monitor B	Full, full sequence, quad, multi-screen, event call-up (live)
Frame rate 8 channels PAL/NTSC	200/240 IPS (real time per channel)
Frame rate 16 channels PAL/NTSC	400/480 IPS (real time per channel)
Multiscreen mode 8 channels	1, 4, 9
Multiscreen mode 16 channels	1, 4, 9, 16
Zoom	1.5x, 2x, 3x, 5x

Alarm Handling

Inputs	Screw terminal 8 or 16 inputs configurable NO/NC, Max. input 40 VDC
Outputs	Screw terminal 4 relay outputs, configurable NO/NC, max. rated 30 VAC, 40 VDC, 0.5 A, continuous -10 VA
Remote notification	Via Control Center software

Connections

Ethernet	RJ45 modular jack 8 pins shielded: 10/100 Base-T
Biphase	Screw terminal connector (5 outputs) Maximum 5 controllable cameras per Biphase output Impedance 128 ohm, max. overvoltage protection ±40 V, max. cable length 1.5 km (0.9 miles)
PTZ control interface	RS485
Serial interface	RS232 output signals according to EIA/TIA-232 F, max. input voltage ±25 V 2xDB-9 male connector
Keyboard	Conforms to RS485, max. signal voltage ±12 V, power supply to keyboard 11 to 12.6 VDC at max. 400 mA RJ11 modular jack 6 pins
USB	Five USB 2.0 ports

Network

Bandwidth control	0.1-100 Mbps limiter
Remote users	Maximum 5 simultaneously connected Control Center users
Protocol support	TCP/IP, DHCP, DNS, and SNMP

Storage

Internal HDD	250, 500, or 750 GB per disk Up to 4 hard disks
External	Via USB (5x) or network (archiving only)

Security

Password protection	Multi-level
Image authentication	All recordings and archives in native file format

Record Frame Rate

8-channels NTSC	Up to 240 IPS @ 352x240, 704x240 and 704x480
16-channels NTSC	Up to 480 IPS @ 352x240, 704x240 and 704x480
8-channels PAL	Up to 200 IPS @ 352x288, 704x288 and 704x576
16-channels PAL	Up to 400 IPS @ 352x288, 704x288 and 704x576

Recording

Overwrite modes	Continuous, overwrite after 1 to 99 days
Pre-alarm recording	Up to 120 s

Playback

Playback function	Fast forward/reverse, frame forward/reverse, freeze
Zoom	1.5x, 2x, 3x, 5x
Search mode	Date/time, Event (motion, input)

Mechanical

Dimensions (W x D x H) (ex- cluding cabling) 446 x 443 x 88 mm (17.6 x 17.4 x 3.5 in)

Weight (incl. 4 hard disks) Approx. 11 kg / 24 lbs

Rack mount kit (included) For mounting one unit in an EIA 19" rack

Environmental

Temperature	Operating: +5 °C to +45 °C (+41 °F to +113 °F)
	Storage: -25 °C to +70 °C (-13 °F to +158 °F)
Relative humidity	Operating: <93 % non-condensing
	Storage: <95 % non-condensing

Ordering Information

Divar XF 16CH 1.5TB 16-channel Digital Video Recorder 1.5 TB	DHR-1600A-150A
Divar XF 16CH 3TB 16-channel Digital Video Recorder 3 TB	DHR-1600A-300A

Ordering Information

Divar XF 8CH 250GB 8-channel Digital Video Recorder 250 GB	DHR-0800A-025A
Divar XF 8CH 500GB 8-channel Digital Video Recorder 500 GB	DHR-0800A-050A
Divar XF 8CH 1.5TB 8-channel Digital Video Recorder 1.5 TB	DHR-0800A-150A
Divar XF 16CH 250GB 16-channel Digital Video Recorder 250 GB	DHR-1600A-025A
Divar XF 16CH 500GB 16-channel Digital Video Recorder 500 GB	DHR-1600A-050A

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: +31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

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