

Fusion III v3.5 DVR Series

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BRIDGING THE GAP BETWEEN ANALOG, IP AND INTELLIGENT VIDEO

The Fusion III DVR Series expands beyond the analog DVR role. It is a full featured hybrid digital recording system that bridges the gap between DVRs and NVRs. The system is designed to record, search and transmit up to a total of 32 channels of analog and digital IP video sources, up to 16 channels of audio, and a single channel of data. Firmware release v3.5 adds many new enhancements that improve performance and make Fusion easier to operate and more effective.

Fusion III v3.5 provides integration with Honeywell intelligent video analytics; Active Alert®, Smart Impressions® or People Counter. These licensed options automatically detect, analyze and classify the behavior of people and vehicles in a scene; greatly increasing event detection accuracy while virtually eliminating false alarms. Instantaneous history of scene activity against user-selected parameters enable fast interactive searches on site and/or remotely.

Fusion III v3.5 expands support for digital video sources including encoders, IP cameras and domes and megapixel cameras. Up to 16 channels of digital IP are supported and the list of compatible sources has been expanded. Camera sabotage detection is now a standard feature as well as analog signal noise filtering and advanced motion detection. Improvements have also been made in the HFVMS remote software including a new, easier to operate user interface, Hot Spot digital zoom, full screen on alarm and alarm images in e-mail alerts. The new HFVMS also supports HTML maps, map audio and a live capture option.

Market Opportunities

The cost effectiveness and wide variety of analog camera sources along with the very fast development of digital IP sources have made hybrid DVRs very desirable. Market acceptance of Fusion in educational, municipal and corporate campus environments, retail and hotels and resorts has been high, and further enhancements to ease of use and support of digital IP sources will expand attractiveness. The option to easily integrate intelligent video analytics significantly improves the effectiveness and efficiency of the system, creating unsurpassed value for the user.

Features

Hardware

- Analog and digital IP recording up to a total of 32 channels
- Up to 16 channels digital IP
- Available with 8, 16 or 32 looping analog video inputs
- Global recording rates from 120/100 to 480/400 at CIF resolution (NTSC/PAL)
- Recording resolutions up to 720 x 480 (4CIF)
- Local live viewing on the real-time display models
- Internal storage capacity from 250 GB to 2 TB
- External storage options from 1 TB to 40 TB
- 16 sensor inputs and 16 control outputs
- Optional multiplexed or switched spot outputs
- 16 channels of audio standard on select models
- 10/100 network standard with 1 Gbps option
- Keyboard control of camera selection and PTZ control
- Windows XP® embedded operating system

Software

- User software included with each DVR
 - **Fusion III Server Software** - Local user interface
 - **HFRVS Remote Software** - Connect to a single DVR
 - **HFVMS Remote Management Software** - Connect to multiple DVRs
- Complete local and remote configuration
- New search-in-live mode feature
- Smart, preview and index searches
- Remote notification of alarm event and health check
- Integrated intelligent video analytics option
- Integrated POS/ATM with Honeywell's IDM software
- Access control integration to Honeywell's Pro-Watch® and WIN-PAK®
- Powerful API available for third party software integration



FEATURES

The Fusion III v3.5 consists of three major components which are included with each unit:

- Server unit; 8, 16 or 32 analog input models and the powerful Fusion III server software
- HFRVS (Fusion Remote View software) allows remote connections to a single Fusion DVR
- HFVMS (Fusion Video Management software) allows remote operation, configuration and management of multiple Fusion DVRs

The powerful combination of Fusion III server, the feature rich HFRVS and HFVMS user software suites create a hybrid digital video recording solution that distinguishes Fusion III DVR Series from the competition.

Fusion Server Software

(Included with every DVR)

- Complete local configuration and administration
- High resolution rates - Fusion is able to record up to 720 x 480 and has an image capture rate of up to 480 ips
- Instant access to information through advanced index searching capabilities and motion-based object search functionalities
- The Preview Search function gives users a quick overview of a 24-hour period. The search can be narrowed down from ten-minute increments to one-minute increments
- Option for POS integration
- Option for up to two channels of integrated intelligent video analytics
- Remote notification of alarm events
- Multiple types of searching capabilities, including not only Preview Search, but also Smart Search and Index Search
- Supports 5 simultaneous remote connections via HFVMS and HFRVS

HFRVS* Remote View Software

(Included with every DVR)

- Looks and functions in a similar manner as the Fusion Server Software
- Remotely connect to a single Fusion DVR
- Remotely search and export video from the Fusion DVR
- Control PTZ cameras that are connected to the Fusion DVR
- Microsoft Windows® 2000 and XP® and Vista compatible
- Remotely set up cameras, schedules, sensors, audio and network functions via the HFRVS remote software

HFVMS* Video Management Software

- Complete remote configuration and administration
- Remotely monitor video, audio and alarms
- Access and export recorded video
- Create infinite customized user accounts
- Create remote backup schedules
- Create custom live camera views
- Configure Fusion DVRs remotely
- Picture included with e-mail alert
- Connect to multiple Fusion DVRs simultaneously
- Full screen pop-up on alarm
- Maps feature allows importing of .dxf, .jpg, .wmf and other formats
- Control cameras with advanced PTZ features
- POS search capabilities
- Live audio
- TCP/IP based

*Single workstation license now included with every Fusion DVR. Additional licenses can be ordered separately. See the Software Part Numbers in the "Accessories and Ordering" section of this document.

HFRVS and HFVMS Central Station Software (Minimum Workstation Requirements)

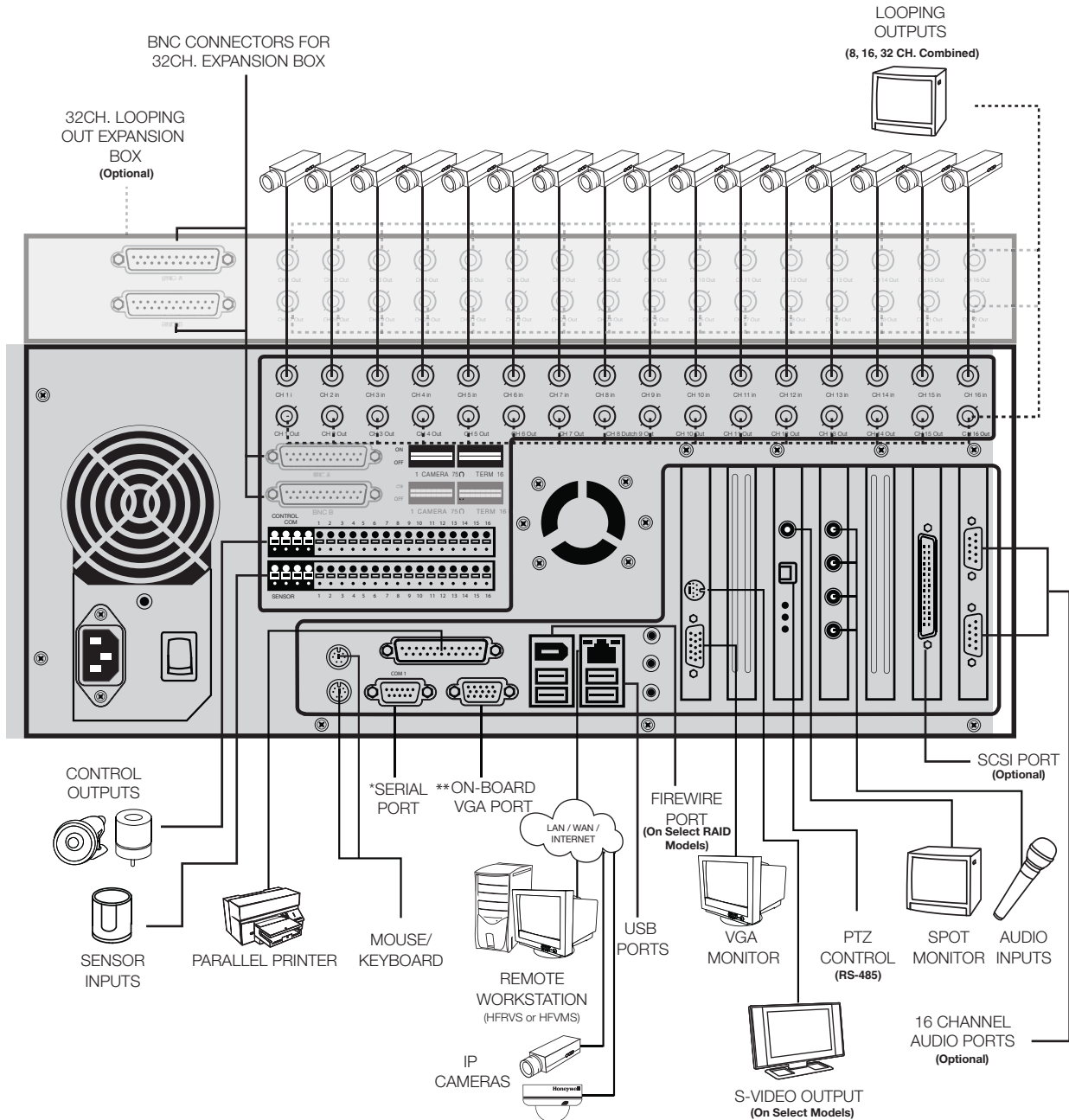
- Pentium IV 2.0 GHz+ (or Equivalent)
- 256 MB system memory
- DirectX 8 or higher
- AGP 128 MB video card
- Internet or LAN connection
- TCP/IP Installed
- Microsoft Windows® 2000 or XP® Compatible System
- 1280 x 1024 Optimal Display Resolution
- 16 Bit Color Depth

Microsoft, Windows 2000, Windows 2000 Server, XP Pro SP2, Vista Home, and Vista Premium are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

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SYSTEM DIAGRAM



SYSTEM DIAGRAM NOTES

*Serial Port 1:

DB9 (M) RS-232 only; used for data input, Point of Sale or PTZ control with an additional code conversion device

**On-Board VGA Port:

Used only with 16 Channel 120/100 PPS & 16 Channel 120/100 PPS Real Time (No VGA Card Used with listed models)

Fusion III v3.5 DVR Series

SPECIFICATIONS

Fusion Specifications (480 ips)	480 - 32 Ch.	480 - 16 Ch.	
Analog Inputs	32	16	
Looping Outputs	32	16	
Sensors	16	16	
Control Outputs	16	16	
Display - Live(L) or Recorded(R)	L	L	
Frame Setup - Individual(I) or Global(G)	I	I	
Resolution - Individual(I) or Global(G)	I	I	
Resolution - 720 x 480 (720) or 640 x 480 (640)	720	720	
Resolution - 720 x 240 (720) or 640 x 240 (640)	720	720	
Resolution - 360 x 240 (360) or 320 x 240 (320)	360	360	
Audio - Line In	8	16	
Spot Monitor - Multi-Screen Controllable(M)/Switched(S)	M	M	
Intensive Record - Selectable(S) or Max(M)	S	S	
USB 2.0 Ports	6	6	
Fusion Specifications (240 ips)	240 - 32 Ch.	240 - 16 Ch.	240 - 8 Ch.
Analog Inputs	32	16	8
Looping Outputs	32	16	8
Sensors	16	16	8
Control Outputs	16	16	8
Display - Live(L) or Recorded(R)	L	L	L
Frame Setup - Individual(I) or Global(G)	I	I	I
Resolution - Individual(I) or Global(G)	I	I	I
Resolution - 720 x 480 (720) or 640 x 480 (640)	720	720	720
Resolution - 720 x 240 (720) or 640 x 240 (640)	720	720	720
Resolution - 360 x 240 (360) or 320 x 240 (320)	360	360	360
Audio - Line In	8	4	4
Spot Monitor - Multi-Screen Controllable(M)/Switched(S)	M	M	M
Intensive Record - Selectable(S) or Max(M)	S	S	S
USB 2.0 Ports	6	6	6
Fusion Specifications (120 ips)	120 - 16 Ch.	120R - 16 Ch.	
Analog Inputs	16	16	
Looping Outputs	16	16	
Sensors	16	16	
Control Outputs	4	16	
Display - Live(L) or Recorded(R)	R	L	
Frame Setup - Individual(I) or Global(G)	G	I	
Resolution - Individual(I) or Global(G)	G	G	
Resolution - 720 x 480 (720) or 640 x 480 (640)	640	720	
Resolution - 720 x 240 (720) or 640 x 240 (640)	640	720	
Resolution - 360 x 240 (360) or 320 x 240 (320)	320	360	
Audio - Line In	2	4	
Spot Monitor - Multi-Screen Controllable(M)/Switched(S)	S	M	
Intensive Record - Selectable(S) or Max(M)	M	M	
USB 2.0 Ports	6	6	

*Note: Frame Rate ÷ # of inputs = max frame rate per camera

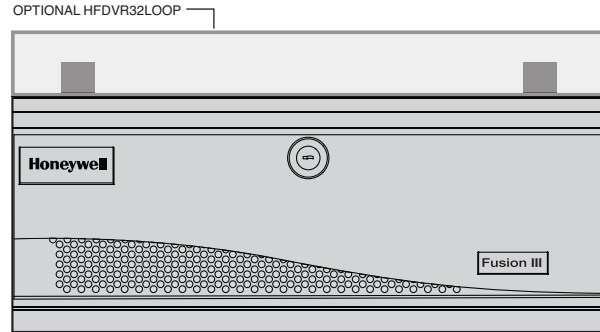
Fusion III Server	
Remote Sessions	Maximum of 5
Video Standard	NTSC:720 x 480 max.; PAL: 720 x 576 max.
Image Compression	Proprietary
3~4 Kbytes Per Frame	(360 x 240)
Record/Viewing	Up to 480/400 ips
Internal Storage Media	250 GB to 2 TB
Video Inputs	
Composite	Analog input: BNC 1.0 - Vp-p @ 75 Ohms
IP	MPEG-4/MJPEG stream from network
Video Outputs	
Composite	RCA connector 1.0 - Vp-p @ 75 Ohms
SVGA	15 pin D-type port for a PC monitor connection
Electrical	
Input Voltage	115 - 230 VAC, 50 - 60 Hz 10/7A
Operating Voltage	115V/230V Auto sensing
Power Consumption	465 W
Mechanical	
Dimensions	7 x 17.3 " x 21.75" 180 mm x 440 mm x 552 mm
Weight	Unit: 64 lbs (29kg) Shipping: 64 (29kg) lb to 84 lb (38kg)
Construction	Housing: Steel Chassis
Finish	Housing: Black Matte Paint
Environmental	
Temperature	Operating: 40°F to 105°F (5°C to 40°C) Storage: 14°F to 150°F (-10°C to 65°C)
Relative Humidity	Operating: 0% - 90% non-condensing
Regulatory	
Emissions	FCC Part 15, Subpart B. Class A. EN55022 + A1:1995 and A2:1997 EN61000-3-3 EN61000-3-2
Immunity	EN 55024:1998 + A1:2001 and A2:2003.
Safety U.S. and Canada International	UL, cUL Listed; UL 60950-1:2003; IEC/EN 60950-1:2001 CB report and certificate
Recording Archive	
On Board Device	CD/RW
Optional	DVD +R/-R, dual layer compatible
Base System	
Includes	HFRVS and HFVMS Software, Keyboard, Mouse, Rack Mounts and CD-RW, Audio In, Network Connectivity, Printer Port, USB Ports, Keyboard and Mouse PS2 Ports, RS485/232 Ports

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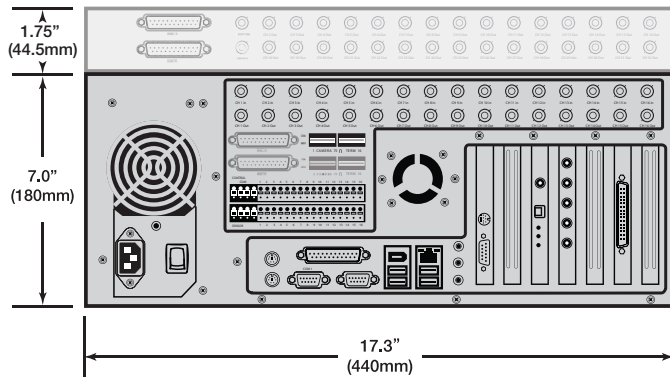
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SYSTEM DIMENSIONS

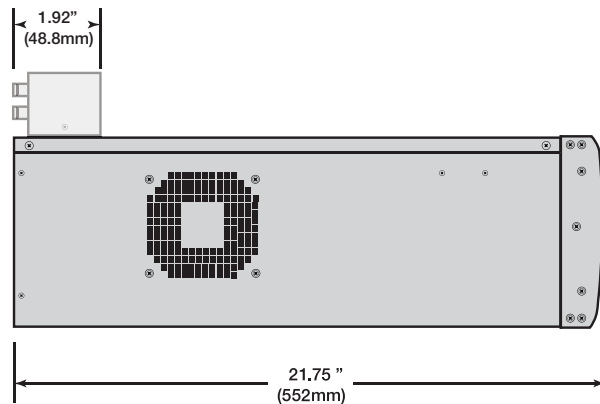
Front View



Back View

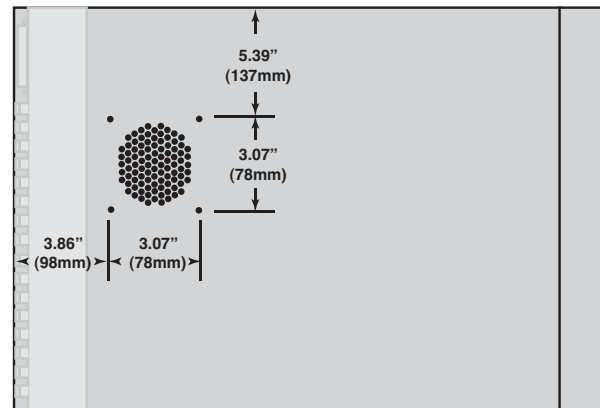


Side View



Top View

Keep Clear
(CPU EXHAUST FAN)



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ACCESSORIES AND ORDERING

Factory Installed Accessories (denoted with suffix A)	
HF3HWUPGCPU	Fusion III Hardware Performance Package Dual Core CPU & 512 MB Memory
HF3MEM512	512 MB Memory Upgrade
HF3R5	Fusion III Internal RAID5 Configuration
HFDVRR1	Internal RAID-1 Controller
HFDVRSCSI	SCSI Interface Card, HD 68 Ultrawide
HFDVRDVDRW	DVD Burner
HF3GBNIC	Gigabit Ethernet Upgrade MB Port
HFDVRGBNIC	Gigabit Network Interface, Adds 2nd Ethernet Port
HFDVR4VOUT	4 CH Analog TV Output Card
HF34VOUTM	4 CH Multiplexed Analog TV Output Card
HFDVR16AUDIO	16 CH Audio Input Card
HAABF ^{1,2}	Video Analytics Active Alert Base Package
HAASF ^{1,2}	Video Analytics Active Alert Standard Package
HAAPF ^{1,2}	Video Analytics Active Alert Premium Package
HASIF ^{1,2}	Video Analytics Smart Impressions
HAAC ^{1,2}	Video Analytics People Counter
External Storage Accessories	
HFDVREXT1T	External storage 1 TB – includes SCSI adapter
HFDVREXT2T	External storage 2 TB – includes SCSI adapter
HFDVREXTR4T	External Raid, 4 TB – requires separate SCSI adapter
HFDVREXTR5T	External Raid, 5 TB – requires separate SCSI adapter
HFDVREXTR8T	External Raid, 8 TB – requires separate SCSI adapter

Field Installed Accessories	
HF3WUPGCPUF	Fusion III Hardware Performance Package Dual Core CPU & 512 MB Memory (Field Upgrade) – requires DVR Serial#
HFDVR32LOOP	32 Analog Input Looping Expansion Box
HF3HD250	Fusion III 250 GB Upgrade Kit
HF3HD500	Fusion III 500 GB Upgrade Kit
HFDVRUSEM	USB Powered Modem
Software Part Numbers	
HFRVS	Single Workstation Fusion Remote View Software
HFVMS	Single Workstation Fusion Video Management Software
HFVMSR	Single Workstation Fusion to Rapid Eye Remote Software
HF3LICDATA	1 CH Fusion Alarm Panel or POS Data License
Hybrid Software Licenses	
HF3LICHYB4 ³	Converts 4 Analog Inputs to Digital IP
HF3LICHYB16 ²	Converts 16 Analog Inputs to Digital IP
NVR Software Licenses	
HF3LICNVR1	Adds 1CH of Digital IP Inputs to Fusion III
HF3LICNVR4 ²	Adds 4CH of Digital IP Inputs to Fusion III
HF3LICNVR8 ²	Adds 8CH of Digital IP Inputs to Fusion III
HF3LICNVR16	Adds 16CH of Digital IP Inputs to Fusion III

¹ Up to 2 channels of ONE ONLY Video Analytics Package. All analytics packages require Factory Performance Upgrade option. Video Analytics options are available with 240 IPS and 480 IPS real time Fusion III v3.5 configurations only.
² Requires HF3HWUPGCPU.
³ If more than one, requires HF3HWUPGCPU.

Ordering

HOW TO ORDER

HF 32 48R 250 N

Accessories
N = No Accessories
A = Signifies Factory Installed Accessories

Number of Analog Inputs
8 = 8 Analog Inputs
16 = 16 Analog Inputs
32 = 32 Analog Inputs

Model Number
HF = Honeywell Fusion DVR

Example:
HF3248R250N =
32 Analog Inputs / 480 ips RTD
250 GB Storage / No Accessories

Internal Storage
250 = 250 GB Storage
500 = 500 GB Storage
750 = 750 GB Storage
1T0 = 1 TB Storage
1T5 = 1.5 TB Storage
2T0 = 2 TB Storage

Capture Rating

NTSC	PAL
120 = 120 ips	100 = 100 ips
12R = 120 ips RTD	10R = 100 ips RTD
24R = 240 ips RTD	20R = 200 ips RTD
48R = 480 ips RTD	40R = 400 ips RTD

*RTD = Realtime Display

NOTE: Honeywell reserves the right, without notification, to make changes in product design or specifications.

Honeywell Security

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