

Fusion DVR Series

TECHNOLOGY IN ITS MOST CONCENTRATED FORM

The Fusion DVR Series by Honeywell offers the latest in digital technology. Models range from an eight-channel unit, 120 GB HDD to a thirty-two-channel unit with one terabyte of storage.

Fusion's ability to select resolutions up to 720x480 and capture up to 480 images per second, allow critical information to be processed in an accurate and efficient manner.

The Fusion Series offers intelligent recording. Users can customize recording schedules based on their security and surveillance needs. The flexible set-up parameters allow users to record continuously or record only specified events. Targeted recording can be implemented by defining specific time periods and/or pre-and-post alarm recording by individual cameras.

In addition, Fusion allows for instant access to information through its advanced search capabilities and remote access. Fusion's advanced search and motion-based object search provide users the ability to access critical information in seconds. Remote viewing capabilities also provide instant access to critical information. Users have the ability to view images via wireless LAN and Internet by using compatible PDA products.

Fusion is compatible with CYA-Retail Security Software by Honeywell. Users can search recorded POS transactions combined with actual transaction video. Along with POS interface, Fusion also interfaces with ATM machines. Captured video, along with the ATM transaction details are recorded. Both POS and ATM interfaces have the ability to view recorded details locally and remotely.

Changes in security environments are simplified by the use of Fusion digital video recorders. All Fusion DVRs use the same software platform, offering compatibility across the entire line. Never has a digital video series been so versatile and comprehensive.



Features:

- Capture rates up to 480 IPS
- Live viewing up to 480 IPS
- Multiplexed or Switched Spot Output
- Direct POS Interface (TVS compatible)
- Remote Notification of alarm events
- Display Maps of Facilities
- Smart, Preview and Index Search
- Supports 5 simultaneous remote connections
- Records resolutions up to 720x480 (4CIF)
- Link events to control outputs
- Up to 1 Terabyte of onboard storage
- Up to 16 channels of audio
- Remote access through PSTN, LAN/WAN, DSL and ISDN
- Remote Health checks

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FEATURES AND BENEFITS

High-Resolution and Capture Rates

Fusion is able to record up to 720 x 480 and has an image capture rate up to 480 IPS. This functionality allows Fusion to process information in an effective and quick manner.

Flexible Connectivity and Expansion

Fusion connects to PSTN, ISDN, LAN/WAN and cable modems giving the flexibility needed for multiple installations. In addition, Fusion is built to respond and adapt to the constant changes in security environments. Upgrades easily allow you to keep pace with the latest developments.

Low Maintenance

Eliminated are the worries of high VCR maintenance. The issues of replacing VCR heads and tapes are gone with the use of digital recording systems. Little time is required maintaining and servicing Fusion digital video recorders.

Remote Accessibility

Users can remotely view the Fusion system through a standard Web browser or have full control capability through the remote client or central station multi-site monitoring software. Remotely, users can view live video, retrieve video, control pan-and-tilts and more.

Ease of Installation

The Fusion DVR Series offers an exceptionally simple, easy to use interface. The set-up takes a simple series of mouse commands. Intuitive selection and configuration tools remove unit selection and installation confusion.

Instant Access to Information

Fusion has advanced index search and motion-based object search functionality that allows users to retrieve critical information in seconds. This saves hours of available time and resources.

Preview Search

The Preview Search function gives a quick overview of a 24-hour period. The search can be narrowed down to ten-minute increments to one-minute increments based on the users review needs.

Simultaneous Connections to Multiple-Sites

Versatility is the key to multi-site capability. Fusion's Remote Management Software allows users to connect to a single unit or multiple sites simultaneously.

Bandwidth Throttling

The Fusion Series has the capability to regulate the data rate of each remote video unit. This ensures that images and system messages are delivered quickly within the capabilities of the bandwidth of the network.

Point-of-Sale Integration

Fusion includes the option of POS integration. The integration can take place through purchasing the CYA Retail Software by Honeywell Video Systems.

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FEATURES CONTINUED

Fusion Remote Management Software Provides:

- Simultaneous viewing of multiple sites
- Viewing of live and /or recorded video
- Control PTZ domes
- Remote alarm monitoring
- Mapping capabilities
- Remote health checks



Mapping Capabilities



Multi-Site Monitoring

360x240	HOURS	DAYS	OPTIONS	
120GB	845.44	35.2	TOTAL IPS	16
250GB	1783.73	74.3	% Day Recorded	50
500GB	3588.13	149.5	MOTION	NORMAL
750GB	5392.54	224.7	QUALITY LEVEL	NORMAL
1TB	7196.94	299.9	AUDIO	2
720x240	HOURS	DAYS		
120GB	479.76	20.0		
250GB	1012.22	42.2		
500GB	2036.16	84.8		
750GB	3060.11	127.5		
1TB	4084.06	170.2		
720x480	HOURS	DAYS		
120GB	243.14	10.1		
250GB	512.98	21.4		
500GB	1031.92	43.0		
750GB	1550.85	64.6		
1TB	2069.78	86.2		

STORAGE CALCULATOR

Honeywell

MOTION ACTIVITY GUIDELINE
 Normal Typical offices & parking lots
 High High traffic areas
 Super-High Sweeping PTZ cameras & excessive motion areas

CALCULATING TOTAL FPS
 Add the Images Per Second (IPS) for all the cameras together.
 EX. 16 Cameras set to record at 5 IPS each would be a total of 80 IPS.

120 IPS MODELS
 *640x480 Resolution cannot exceed 30 IPS
 *640x240 Resolution cannot exceed 60 IPS

240 IPS MODELS
 *720x480 Resolution cannot exceed 60 IPS
 *720x240 Resolution cannot exceed 120 IPS

480 IPS MODELS
 *720x480 Resolution cannot exceed 120 IPS
 *720x240 Resolution cannot exceed 240 IPS

FUSION

- ### INSTRUCTIONS
- 1 Enter a value into the **TOTAL IPS** (images per second) field. This number cannot exceed the total number of frames available to the DVR. (see CALCULATING TOTAL IPS in the column to the left).
 - 2 Enter the **% DAY RECORDED**. This is the estimated amount of any given day that will be recorded.
 - 3 Enter a **MOTION ACTIVITY** value. This number represents the amount of motion occurring in the video. (see MOTION GUIDELINE in the column to the left).
 - 4 Enter a **QUALITY LEVEL** the cameras will be recording at. This is a setting that increases the clarity of a recorded image, but in doing so, also reduces the total number of days recorded.
 - 5 Select the number of **AUDIO** channels that will be recorded.

Sample Storage Calculator Image - This is an estimate for reference purpose only. Recording duration can be dramatically effected by PTZ cameras, higher levels of activity, image quality, light levels and noise.

Sample Recording Specification Tables

Fusion Series Recording Specifications								
Disk Capacity	120 GB							
Images per Second	1	16	30	60	90	120	240	480
360x240								
Continuous Recording	338	20.9	11	5.4	3.5	2.6	1.2	0.5
35% Motion	967	60.2	32	15.9	10.5	7.8	3.8	1.8
720x480*								
Continuous Recording	93.8	5.6	3.7	1.3	0.8	0.5		
35% Motion	268.4	16.5	8.7	4.2	2.7	2		

Fusion Series Recording Specifications								
Disk Capacity	1TB							
Images per Second	1	16	30	60	90	120	240	480
360x240								
Continuous Recording	2877	178	93.9	45.9	29.9	21.9	9.9	3.9
35% Motion	8223.8	512	272	135	89.3	66.5	32.2	15.1
720x480*								
Continuous Recording	93.8	47.9	24.6	11.3	6.8	4.6		
35% Motion	2282	141	74.1	36	23.3	17		

Results listed in days of recording * Note: Size of image effects max ips.

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SPECIFICATIONS

Specification Chart	480 - 32 Channel		480 - 16 Channel		240 - 32 Channel		240 - 16 Channel		240 - 8 Channel		120 - 16 Channel	
Cameras	32	16	32	16	8	16						
Looping Outputs	32	16	32	16	8	16						
Sensors	16	16	16	16	8	16						
Control Outputs	16	16	16	16	8	4						
Display - Live (L) or Recorded Rate (R)	L	L	L	L	L	L/R						
Frame Setup - Individual (I) or Global (G)	I	I	I	I	I	I/G*						
Resolution - Individual (I) or Global (G)	I	I	I	I	I	G						
Resolution - 720x480 (720) or 640x480 (640)	720	720	720	720	720	640						
Resolution - 720x240 (720) or 640x240 (640)	720	720	720	720	720	640						
Resolution - 360x240 (360) or 320x240 (320)	360	360	360	360	360	320						
Audio - Line In	4	4	8	4	4	4/2						
Spot Monitor - Multi-Screen Controllable/Switched	M	M	M	M	M	M/S						
Intensive Record - Selectable (S) or Max (M)	S	S	S	S	S	M						
USB 2.0 Ports	4	4	4	4	4	4						

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

Factory Installed Accessories	
HFDVRHDDUPG1	Factory Accessory, Hard Drive, 250GB upgrade
HFDVRHDDEXP	Factory Accessory, Hard Drive Expansion controller, allows a 3rd or 4th drive to be added in the field. This must be ordered with unit at time of original purchase or as part of a return to factory upgrade. Only available as an accessory for the 120, 250 or 500GB models. Included with 750GB version.
HFDVRDVRDW	Factory Accessory, DVD Burner
HFDVR4VOUT	Factory Accessory, Fusion Analog Monitor Interface - Provides 4 Analog Outputs for Live Viewing for 240/480ips units
HFDVR4VOUTL	Factory Accessory, Fusion Analog Monitor Interface - Provides 4 Analog Outputs for Live Viewing for 60/120ips units
HFDVR16AUDIO	Factory Accessory, 16 Port Audio Card
HFDVRGBNIC	Factory Accessory, Fusion Gigabit Network Interface Card - Adds Gigabit Network Interface to DVR.
HFDVRR1	Factory Accessory, Internal RAID-1 Controller
HFDVRR5	Factory Accessory, Internal RAID-5 Controller
HFDVRSCSI*	Factory Accessory Fusion SCSI Adapter - Adds SCSI Interface for External Storage Solutions. Has HD68 Ultrawide 160 Connector.
HFDVREXT1T**	Factory Accessory, Fusion External Storage 1 Terrabyte - includes required SCSI adapter
HFDVREXTR5	Factory Accessory, external Raid 5 SCSI card

*NOTE: HFDVRSCSI must be ordered at the time of the original Fusion DVR purchase to enable future expansion to external storage arrays (HFDVREXT1T, HFDVR225, HFDVR325).

**NOTE: HFDVREXT1T now includes a bundled SCSI adapter, it is not necessary to order this part as a separate item.

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SPECIFICATIONS CONTINUED

Software	
HFRVS	Fusion Remote Viewing Software - Supplied with Each DVR
HFVMS	Fusion Video Management Software - Adds Central Station Type Functions for Remote Viewing and Operation.
HFDVRCYASA	Stand Alone CYA Software for POS Interface
HFDVRCYAATM	Stand Alone CYA for ATM
HFDVRCYA1NWR	Network Accessibility Software for CYA
HFDVRCYANATM	Network Accessibility Software for CYA-ATM
Field Installed Accessories	
HFDVRCYACL1	CYA Client Software
HFDVR32LOOP	32 Channel Looping Expansion Box for Fusion II chassis only
HFDVR250UPG	Field Accessory, Storage Drive Expansion, 250 GB Hard Drive for Fusion II chassis only
HFDVRUSBM	Fusion External USB Modem

Video Recording System	
Video Standard	NTSC: 720x480 max.; PAL: 720x576 max.
Image Compression	Proprietary
2~4 Kbytes per frame	(360x240)
Record/Viewing	Up to 480 ips
Storage Media Internal	Up to 1TB
	Record directly to SAN Drive Array
Video Inputs	
Composite	Analog input, BNC, MPEG-4 stream from network
Video Outputs	
Composite	Controllable analog out, display up to 16 images
SVGA	15 pin D-type port for a PC monitor connection
Rear Panel Connections	
Alarm inputs	Up to 16 dry contact, NC/NO programmable
Control output	Up to 16
Audio Inputs	Up to 16 line inputs – RCA Connector
Audio Out	1 line output, 1/8" stereo
Network connectivity	10/100 Mbps Ethernet, RJ45
Com Ports	Up to 2
Printer Port	25 Pin D-Type
USB Port	Up to 4 USB 2.0
Keyboard & Mouse	PS2 or USB
RS485/422/232 Ports	Plug in connector for control of Honeywell Video Systems Rapid Dome Series and KD6 series speed domes, along with many other major manufactures

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SPECIFICATIONS CONTINUED

Recording Archive	
On Board Device	CD/RW, DVD +R/-R
Optional	DVD/RW
Mechanical	
Dimensions	17" W x 20" D x 7"H
Weight	38-65 lbs dependent on model
Electrical	
Power	100-240VAC (50Hz/60Hz)
Environment	
Operation Temperature	40° to 104°F (5° to 40°C)
Recommended	72° F/21°C
Base System	
Includes	HFRVS- Fusion Remote Video Software, Keyboard, Mouse, Rack Mounts, and CD-RW
Warranty	
2 year warranty including drives	

Ordering	
<p>HFDVR 32 480 50</p>	
<p>Storage 12 = 120GB 25 = 250GB 50 = 500GB 75 = 750GB 1T = 1TB</p>	<p>Capture Rating 12R = 120 images per second, real-time live display 120 = 120 images per second, 120 ips display 240 = 240 images per second, real-time live display 480 = 480 images per second, real-time live display</p>
<p>Number of Channels 8 = 8 Channels 16 = 16 Channels 32 = 32 Channels</p>	<p>Model Number HFDVR = Honeywell Fusion DVR</p>

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

Honeywell Security

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