



**DS-8000HFI-S Series Net DVR  
Technical Manual**

## Notices

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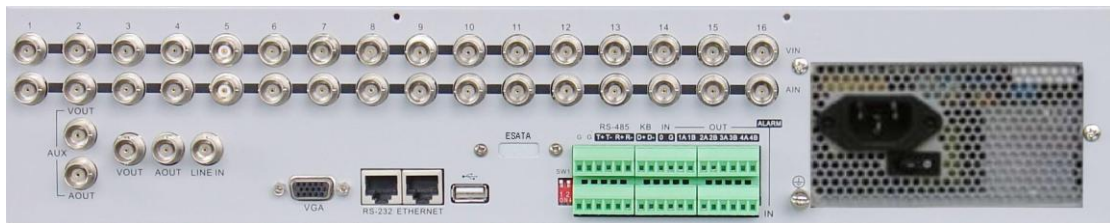
## 1. Overview

DS-8000HFI-S series Network Digital video Recorder is an excellent digital surveillance product adopts embedded MCU (Microprocessor Control Unit) and an embedded Real-Time Operating System (RTOS), along with the most advanced technology in the Information technology Industry such as video and audio encoding/decoding, hard disk recording and TCP/IP transmission. The firmware is burned into the flash, making it more stable and reliable than software programs running from a standard disk drive.

DS-8000HFI-S series combines the advantages of Digital Video Recorder (DVR) and Digital Video Server (DVS). It is widely applied as a stand-alone unit or a part of a powerful surveillance system.



**DS-8000HFI-S Front Panel**



**DS-8016HFI-S Rear Panel**

## **2. Model Description**

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**DS-8002HFI-S:** 2-ch video input and 2-ch audio input. Each channel can max support 4CIF encoding resolution real time. It has 8 SATA interfaces.

**DS-8004HFI-S:** 4-ch video input and 4-ch audio input. Each channel can max support 4CIF encoding resolution real time. It has 8 SATA interfaces.

**DS-8008HFI-S:** 8-ch video input and 8-ch audio input. Each channel can max support 4CIF encoding resolution real time. It has 8 SATA interfaces.

**DS-8016HFI-S:** 16-ch video input and 16-ch audio input. Each channel can max support 4CIF encoding resolution real time. It has 8 SATA interfaces.

**Note: 1. The default DVRs are without HDD or CD-R/W.**

**2. A factory recommended HDD should be used for this device.**

## **3. Features**

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### **3.1 Compression:**

- Support up to 16 video channels (NTSC/PAL). Each channel is independent with H.264 hardware compression in real time (NTSC 30FPS, PAL 25FPS).
- Support both variable bit rate and frame rate
- Support up to 16 channels audio input channels. Each channel is independent with OggVorbis at a bit rate of 16Kbps
- Compressed video and audio are synchronous. Either composited stream or video-only can be selected.
- Support 4CIF, DCIF, 2CIF, CIF and QCIF resolution.
- Support multi-area motion detection
- Support OSD and changeable OSD position

### **3.2 Local functions:**

#### **3.2.1 Recording:**

- Support multiple recording types, including schedule recording, manual recording, motion detection, external alarm, motion & alarm and motion | alarm, etc.
- Support 8 HDDs. Each HDD can support 2000GB maximum.
- Support FAT32 file system
- Support NAS Recording.
- Support Event Recording Para. Setup.
- Support HDD S.M.A.R.T technology
- Support continuous (overwrite) and linear (stop when full) record modes
- Support backup recorded files and video/audio clips with USB memory stick (thumb drive), USB HDD, USB CD-R/W, USB DVD-R/W or SATA HDD.

#### **3.2.2 Preview and playback:**

- Support BNC analog monitor and VGA output for main output
- Support one spot video and audio output
- Support multiple live view modes
- Support Privacy Mask
- Support view tampering alert.
- Support video signal loss alert.
- Support 2-ch synchronous playback.
- Support play forward, backward, pause, frame-by-frame, etc
- Support play back by files or by time/date
- Displays local record status

**3.2.3 PTZ:**

- Support multiple PTZ protocols
- Support preset, sequence and cruise

**3.2.4 Alarms:**

- Support exception alarm, motion detection alarm, external alarm, etc

**3.3 Miscellaneous:**

- Support IR Remote control
- Support RS-485 keyboard
- Support multi-level user management
- Support Mouse Operation Menu.
- Support multiple upgrade modes, including FTP, USB and CD.

**3.4 Network:**

- Support Advanced Network Function: NTP, DDNS and E-mail.
- Support TCP, UDP, RTP, Multicast for network viewing
- Support PPPoE for broad band dialup
- Support PSTN for standard dialup
- Support remote parameters setup
- Alarm information can be sent to remote center
- Network control PTZ
- Network video/audio recording
- Network download and playback recorded files from the DVR
- RS-232 supports transparent channel function
- Support bi-directional audio or one-way audio broadcast
- Support IE preview and configuration
- Support SADP protocol
- Support remote log query

**3.5 Development support:**

- Provide network SDK (Software Development Kit)
- Provide client demo source code

## 4. Specifications

Model	DS-8002HFI -S	DS-8004HFI -S	DS-8008HFI -S	DS-80016HFI -S
<b>Video compression</b>	H.264			
<b>Preview resolution</b>	4CIF (PAL: 704*576, NTSC: 704*480)			
<b>Playback resolution</b>	4CIF/DCIF/2CIF/CIF/QCIF			
<b>Synchronous playback</b>	2-ch			
<b>Video input</b>	2	4	8	16
<b>Video input interface</b>	BNC (1.0Vp-p, 75Ω)			
<b>Main video output</b>	1 channel, BNC (1.0Vp-p, 75Ω)			
<b>Aux video output</b>	1 channel, BNC (1.0Vp-p, 75Ω)			
<b>Frame rate (per channel )</b>	4CIF: 25(P)/30(N) fps			
<b>Stream type</b>	Video/Video&Audio			
<b>Support dual stream</b>	Yes			
<b>Bit rate</b>	32Kbps~2Mbps, or user-defined (Max. 8Mbps)			
<b>Audio input</b>	2	4	8	16
<b>Audio input interface</b>	BNC (2.0Vp-p, 1kΩ)			
<b>Main audio output</b>	1 channel, BNC (Linear Electrical Level, 600Ω)			
<b>Aux audio output</b>	1 channel, BNC (Linear Electrical Level, 600Ω)			
<b>Audio compression</b>	OggVorbis, 16Kbps			
<b>Voice talk</b>	1 channel, BNC (2.0Vp-p, 1KΩ)			
<b>Communication interface</b>	1 RJ45 10M/100M Adaptive Ethernet Interface 1 RJ45 RS232 Port			
<b>RS-485 Port</b>	1 Port (T+, T-, R+, R-)			



<b>Keyboard interface</b>	2 RJ45	1 Port (D+, D-)
<b>SATA interface</b>	8 SATA interfaces, max support 8 SATA HDDs, or 4 SATA HDDs with 1 SATA DVD-R/W. Each HDD can max support 2000GB	
<b>USB interface</b>	1 USB interface, can support USB disk, USB HDD, USB DVD-R/W and CD-R/W	
<b>VGA interface</b>	1 VGA interface, support resolution: 800*600/60Hz, 1024*768/60Hz, 1280*1024/60Hz	
<b>External alarm in</b>	4	16
<b>Relay output</b>	2	4
<b>Power supply</b>	100~240VAC, 6.3A, 50~60Hz	
<b>Power consumption</b>	≤70W (without HDD or DVD-R/W)	
<b>Working temperature</b>	-10℃~+55℃	
<b>Working humidity</b>	10%~90%	
<b>Size</b>	470mm(D)*441mm(W)*90mm(H)	
<b>Weight</b>	≤8Kg (without HDD or DVD-R/W)	

PAL: 176×144(QCIF), 352×288(CIF), 704×288(2CIF), 528×384(DCIF), 704×576(4CIF);  
 NTSC: 176×120(QCIF), 352×240(CIF), 704×240(2CIF), 528×320(DCIF), 704×480(4CIF).