



DS-8000HFI-S Series Net DVR
Technical Manual

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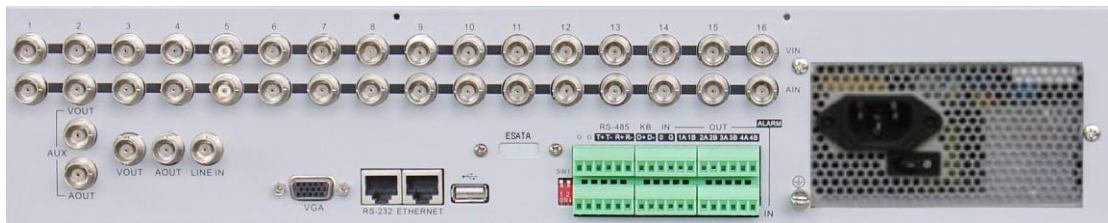
1. Overview

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

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

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

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