DS-8000HDI-S Series Net DVR

Technical Manual

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1. Overview

DS-8000HDI-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-8000HDI-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-8000HDI-S Front Panel
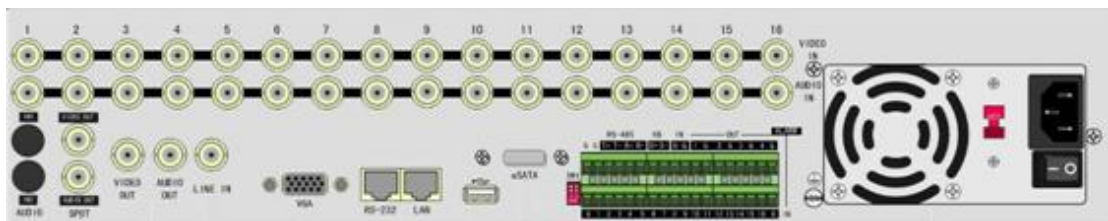
DS-8016HDI-S Rear Panel

2. Model Description

DS-8004HDI-S: 4-ch video input and 4-ch audio input. Each camera can max support 4CIF preview resolution real time. Only 4 SATA interfaces.

DS-8008HDI-S: 8-ch video input and 8-ch audio input. Each camera can max support 4CIF preview resolution real time. 8 SATA interfaces.

DS-8016HDI-S: 16-ch video input and 16-ch audio input. Each camera can max support 4CIF preview resolution real time. 8 SATA interfaces.

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

3. Features

3.1 Compression:

- Supports up to 16 video channels (NTSC/PAL). Each channel is independent with H.264 hardware compression in real time (NTSC 30FPS, PAL 25FPS).
- Supports both variable bit rate and constant bit rate
- Supports 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 (video and audio) or video-only can be selected.
- Supports 4CIF, DCIF, 2CIF, CIF and QCIF resolution.
- Supports multi-area motion detection
- Supports OSD and changeable OSD position
- Supports LOGO and changeable LOGO position

3.2 Local functions:

3.2.1 Recording:
- Supports multiple recording types, including real-time, manual recording, motion detection, external alarm, motion & alarm and motion | alarm, etc.
- Supports up to 8 HDDs. Each HDD can support 2000GB maximum.
- Supports FAT32 file system
- Supports NAS Recording.
- Supports Event Recording Para. Setup.
- Supports HDD S.M.A.R.T technology
- Supports continuous (overwrite) and linear (stop when full) record modes
- Supports 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:
- Supports BNC analog monitor and VGA output for main output
- Supports one spot video and spot audio output
- Supports multiple live view modes
- Supports Privacy Mask (blank portions of camera views)
- Supports camera block alert.
- Supports video signal loss alert.
- Supports 2-ch synchronous playback. Support play forward, backward, pause, frame-by-frame, etc
- Supports play back by files or by time/date

- Displays local record status

3.2.3 PTZ:
- Supports multiple PTZ protocols
- Supports preset, sequence and pattern

3.2.4 Alarms:
- Supports exception alarm, motion detection alarm, external alarm, etc

3.3 Miscellaneous:

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

3.4 Network:

- Supports Advanced Network Function: NTP, DDNS and E-mail.
- Supports TCP, UDP, RTP, Multicast for network viewing
- Support PPPoE for broad band dialup
- Supports PSTN for standard dialup
- Supports 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
- Remote upgrading DVR firmware
- RS-232 supports transparent channel function so that the remote PC can control serial devices through DVR.
- Supports bi-directional audio or one-way audio broadcast
- Supports advanced IE plug-in to preview and configure DVR via browser.
- Supports SADP protocol that enables modification of IP address, mask and port via SADP Client.
- Supports activity log.

3.5 Development support:

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

4. Specifications

Model name	DS-8004HDI-S	DS-8008HDI-S	DS-8016HDI-S
Video compression	H.264		
Preview resolution	4CIF real-time (PAL: 704*576, NTSC: 704*480)		
Playback resolution (PAL/NTSC)	2CIF/CIF/QCIF real-time, DCIF 15/18fps, 4CIF12/15fps		
Dual Playback	supported		
Video input	4	8	16
	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)		
Stream type	Video/Video&Audio		
Dual stream	supported		
Max bit rate	32Kbps~2Mbps, self-define		
Audio input	4	8	16
	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 (Linear Electrical Level, 1KΩ)		
Communication interface	1 RJ45 10M/100M Self-adaptive Ethernet Interface 1 RJ45 RS232 Port		
RS-485 Port	1 Port (T+, T-, R+, R-)		
Keyboard interface	1 Port (D+, D-)		
SATA interface	4	8	8
USB interface	1 USB interface, USB1.1, can support USB flash memory, USB HDD and USB CD-R/W		
VGA interface	1 VGA interface, support resolution: 800x600/60Hz,800x600/75Hz, 1024x768/60Hz		
External alarm in	4	16	16
Relay output	2	4	4
Power supply	100~240VAC, 6.3A, 50~60Hz		
Power consumption	20~42W (without HDD and CD-R/W)		
Working	-10°C to +55°C		

temperature	
Working humidity	10% to 90%
Size	19" Standard (450mm*450mm*95mm)
Weight	≤8Kg (without HDD and CD-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).