



# DS-8000HTI-S Series Net DVR Technical Manual



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## 1. Overview

DS-8000HTI-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-8000HTI-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-8000HTI-S Front Panel** 



**DS-8016HTI-S Rear Panel** 



# 2. Model Description

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

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

**DS-8012HTI-S**: 12-ch video input and 12-ch audio input. Each channel can max support DCIF encoding resolution real time. It has 8 SATA interfaces

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

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



#### 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-8004HTI-S	DS-8008HTI-S	DS-8012HTI-S	DS-8016HTI-S
Video	11.264			
compression	H.264			
Preview	4CIF (PAL: 704*576, NTSC: 704*480)			
resolution	4CIF (FAL. 704"370, N13C. 704"480)			
Playback	4CIF/DCIF/2CIF/CIF/QCIF			
resolution				
Synchronous	2-ch			
playback				
Video input	4	8	12	16
Video input	BNC (1.0Vp-p, 75Ω)			
interface				
Main video	1 channel, BNC (1.0Vp-p, 75 $\Omega$ )			
output	, , , ,			
Aux video output	1 channel, BNC (1.0Vp-p, 75Ω)			
Frame rate (per	4CIF: 15fps			
channel)	DCIF: 25(P)/30(N) fps			
Stream type	Video/Video&Audio			
Support dual	video, videochadio			
stream	Yes			
Bit rate	32Kbps~2Mbps, user-defined (Max. 8Mbps)			
Audio input	4	8	12	16
Audio input	PNC (2.0)/2 = 11/0)			
interface	BNC (2.0Vp-p, 1kΩ)			
Main audio	1 channel, BNC (Linear Electrical Level, $600\Omega$ )			
output	1 Glaffiel, Dive (Liffear Liectrical Level, 00032)			
Aux audio	1 channel, BNC (Linear Electrical Level, $600\Omega$ )			
output				
Audio	OggVorbis, 16Kbps			
compression				
Voice talk	1 channel, BNC (2.0Vp-p, 1KΩ)			
Communication	1 RJ45 10M/100M Adaptive Ethernet Interface			
interface	1 RJ45 RS232 Port			
RS-485 Port	1 Port (T+, T-, R+, R-)			
Keyboard	1 Port (D+, D-)			
interface	1.0.2(0.70)			



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	16		
Relay output	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).