DS-7200HWI-SH Series DVR

Technical Specification

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Main Features

- **Main stream supports encoding at up to WD1 resolution in real time and sub stream at CIF/QCIF resolution.**
- **Simultaneous HDMI, VGA and CVBS outputs.**
- **HDMI output and VGA output at up to 1920×1080P resolution.**
- **Channel-zero encoding.**
- **Support dual stream.**
- **HDD quota management; different capacity can be assigned to different channel.**
- **Holiday recording schedule configuration.**
- **Smart searching for the event triggered record files.**
- **Digital zoom of video in live view or playback mode.**
- **Up to 4/8/16-ch synchronous playback.**
- **1 self-adaptive 10M/100M network interface.**
- **IPv6 is supported.**
- **Network detection function.**
- **NTP, SMTP, NFS, UPnP™ and iSCSI protocols supported.**

Functions & Performances

Compression

- PAL/NTSC adaptive video inputs.
- H.264 video compression with high reliability and superior definition.
- Each channel supports dual-stream.
- Main stream supports encoding at up to WD1 resolution in real time and sub stream at CIF/QCIF resolution.
- Independent configuration for each channel, including resolution, frame rate, bit rate, image quality, etc.
- The quality of the input and output video is configurable.
- Normal and event recording parameters configurable for per individual camera.
- Encoding for both audio/video composite stream and video stream; audio and video synchronization during composite stream encoding.
- Watermark technology.

Local Monitoring

- Simultaneous HDMI, VGA and CVBS outputs.
- HDMI/VGA output at up to 1920×1080P resolution.
- 1/4/6/8/9/16-division live view is supported, and the display sequence of screens is adjustable.
- Live view screen can be switched in group, and manual switch and automatic cycle review is also provided, the interval of automatic cycle can be adjusted.
- Quick setting menu is provided for live view.
- The selected live view channel can be shielded.
- Motion detection, tamper-proof, video exception and video loss alarm functions.
- Privacy mask.
- Several PTZ protocols supported; PTZ preset, patrol and pattern.
- Zooming in by clicking the mouse and PTZ tracing by dragging mouse.

HDD Management

- 2 SATA hard disks, with a maximum of 4TB storage capacity for each disk.
- 8 network disks (8 NAS disks, or 7 NAS disks+1 IP SAN disk) can be connected.
- HDD group management.
- Support HDD standby function.
- HDD property: redundancy, read-only, read/write (R/W).
- HDD quota management; different capacity can be assigned to different channel.

Recording, Capture and Playback

- Holiday recording schedule configuration.
- Normal and event video encoding parameters.
- Multiple recording types: manual, normal, and motion.
- 8 recording time periods with separated recording types.
- Pre-record and post-record for motion detection for recording, and pre-record time for schedule and manual recording.
- Searching record files by event.
- Customization of tags, searching and playing back by tags.
- Locking and unlocking record files.
- Local redundant recording.
- Searching and playing back record files by channel number, recording type, start time, end time, etc.
- Smart search for the selected area in the video.
- Zooming in when playback.
- Playing reversely.
- Supports pause, speed up, speed down, skip forward, and skip backward when playback, locating by dragging the mouse.
- Up to 4/8/16-ch synchronous playback.

Backup
- Export video data by USB or SATA storage device.
- Export video clips when playback.
- Management and maintenance of backup devices.

Alarm and Exception
- Alarm for video loss, motion detection, tampering, abnormal signal, video input/output standard mismatch, illegal login, network disconnected, IP confliction, abnormal record, HDD error, and HDD full, etc.
- Configurable arming time of alarm input/output.
- Alarm event triggers full screen monitoring, audio alarm, notifying surveillance center and sending email.
- Automatic restore when system is abnormal.

Other Local Functions
- Operable by mouse, or IR remote control.
- Three-level user management; admin user is allowed to create many operating accounts and define their operating permission, which includes the limit to access any channel.
- Operation, exceptions and log recording and searching.
- Import and export of device configuration information.

Network Functions
- 1 self-adaptive 10M/100M network interface.
- IPv6 is supported.
- TCP/IP protocol, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, UPnP™, NFS, and iSCSI are supported.

- TCP, UDP and RTP for unicast.
- Remote search, playback, download, locking and unlocking the record files, and downloading files broken transfer resume.
- Remote parameters setup; remote import/export of device parameters.
- Remote viewing of the device status, system logs and alarm status.
- Remote locking and unlocking of control panel and mouse.
- Remote HDD formatting and program upgrading.
- Remote system restart.
- RS-485 transparent channel transmission.
- Alarm event and exception information can be sent to the remote host.
- Remotely start/stop recording.
- Upgrade by remote FTP server.
- Remote PTZ control.
- Two-way audio and voice broadcasting.
- Embedded WEB server.

Development Scalability:

- SDK for Windows and Linux system.
- Source code of application software for demo.
- Development support and training for application system.
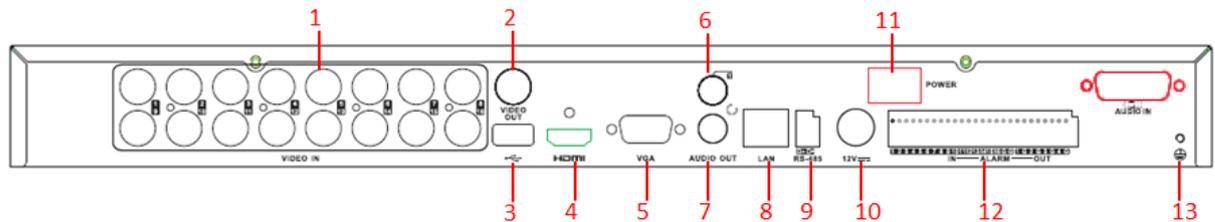
Panels & Interfaces

Front Panel

DS-7204HWI-SH, DS-7208HWI-SH, DS-7216HWI-SH:

① POWER Indicator

② STATUS Indicator

③ Tx/Rx Indicator

④ USB Interface

⑤ IR Receiver

Rear Panel

DS-7216HWI-SH:

Note: The rear panel of DS-7204HWI-SH provides 4 video input, 4 alarm in and 1 alarm out.

The rear panel of DS-7208HWI-SH provides 8 video input, 8 alarm in and 4 alarm out.

① VIDEO IN

② VIDEO OUT

③ USB Interface

④ HDMI Interface

⑤ VGA Interface

⑥ AUDIO IN, RCA Interface

⑦ AUDIO OUT, RCA Connector

⑧ LAN Network Interface

⑨ RS-485 Serial Interface

⑩ 12VDC Power Input

⑪ Power Switch

⑫ Alarm In/Out Interface

⑬ GND

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Specifications

Model		DS-7204HWI-SH	DS-7208HWI-SH	DS-7216HWI-SH
Video/Audio input	**Video compression**	H.264		
	Video input	4-ch	8-ch	16-ch
	Video input interface	BNC (1.0 Vp-p, 75 Ω), PAL /NTSC self-adaptive		
	Audio compression	G.711u		
	Audio input	4-ch		
	Two-way audio input	1-ch, RCA (2.0 Vp-p, 1 kΩ) (using the audio input)		
Video/Audio output	**HDMI/VGA output**	1-ch, resolution: 1080P: 1920×1080/60Hz; SXGA: 1280×1024/60Hz; 720P: 1280×720/60Hz; XGA: 1024×768/60Hz		
	CVBS output	1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 × 480		
	Encoding resolution	WD1 / 4CIF / 2CIF / CIF / QCIF		
	Frame rate	25 fps (P) / 30 fps (N)		
	Video bit rate	32 Kbps ~ 3072 Kbps, or user defined (Max. 3072 Kbps)		
	Audio output	1-ch, RCA (Linear, 1 kΩ)		
	Audio bit rate	64 Kbps		
	Dual-stream	Support; sub-stream @ CIF/ QCIF		
	Stream type	Video, Video & Audio		
	Synchronous playback	4-ch	8-ch	16-ch
Hard disk	**SATA**	2 SATA interfaces		
	Capacity	Up to 4TB capacity for each disk		
External interface	**Network interface**	1, RJ45 10M / 100M Ethernet interface		
	Serial interface	1 RS-485 interface, half-duplex		
	USB interface	2, USB 2.0		
	Alarm In	4	8	16
	Alarm Out	1	4	4

General	Power supply	12 VDC		
	Consumption (without hard disk or DVD-R/W)	≤ 10 W	≤ 15 W	≤ 20 W
	Working temperature	-10 ºC ~+55 ºC		
	Working humidity	10% ~ 90%		
	Chassis	19-inch rack-mounted 1U chassis		
	Dimensions (W × D × H)	445 × 290 × 45mm		
	Weight (without hard disk or DVD-R/W)	≤ 4 kg		