

# **DVR 24-32 CHANNELS**

## **Technical Specification**

## Notices

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## Main Features

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- **Main stream supports encoding at up to 4CIF 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.**
- **4/8/16-ch synchronous playback at up to 4CIF resolution.**
- **1 self-adaptive 10M/100M/1000M network interface.**
- **IPv6 is supported.**
- **Network detection function.**
- **NTP, SMTP, NFS, UPnP™ and iSCSI protocols supported.**

## Functions & Performances

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### General

- 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 4CIF 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.
- 1/4/6/8/9/16/25/36-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

- 4 SATA hard disks can be connected, 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.
- 1 eSATA hard disk interface.
- 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 and Playback**

- Holiday recording schedule configuration.
- Normal and event video encoding parameters.
- Multiple recording types: manual, normal, motion, alarm, motion/alarm and motion & alarm.
- 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, SATA or eSATA storage device.
- Export video clips when playback.
- Management and maintenance of backup devices.

## **Alarm and Exception**

- Configurable arming time of alarm input/output.
- 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.
- 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/1000M 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-232 and 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

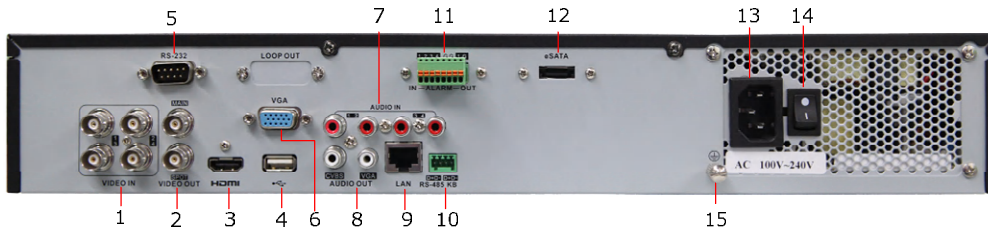
#### HDS-7300HFI-HDMI:



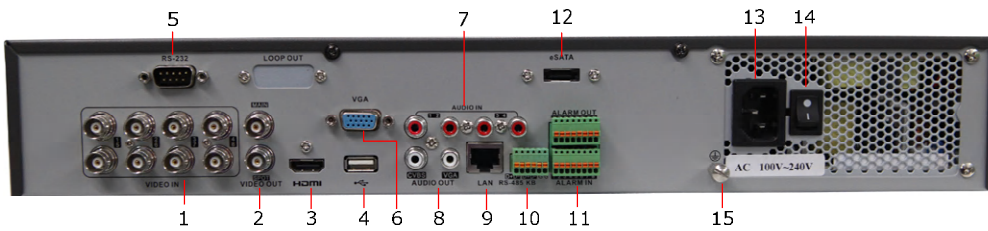
- ① Power Button
- ② IR Receiver
- ③ USB Interface
- ④ DVD-ROM
- ⑤ Status Indicator(Power, Ready, Status, Alarm, HDD, Tx/Rx)
- ⑥ Compound Buttons
- ⑦ DIRECTION/ENTER Buttons
- ⑧ JOG SHUTTLE Control

## Rear Panel

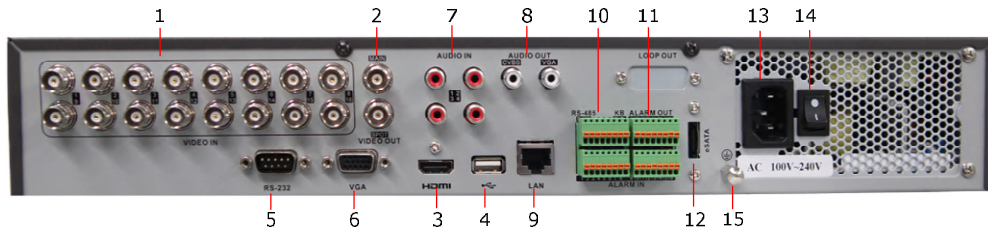
### HDS-7304HFI-HDMI:



### HDS-7308HFI-HDMI:



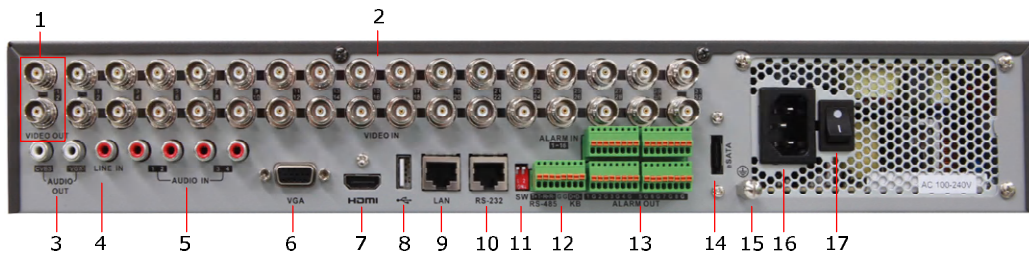
### HDS-7316HFI-HDMI:



- ① VIDEO IN
- ② MAIN VIDEO OUT, SPOT VIDEO OUT
- ③ HDMI Interface
- ④ USB Interface
- ⑤ RS-232 Serial Interface
- ⑥ VGA Interface
- ⑦ AUDIO IN, RCA Connector
- ⑧ AUDIO OUT, RCA Connector
- ⑨ LAN Network Interface
- ⑩ RS-485 Serial Interface
- ALARM IN/OUT
- eSATA Interface
- 110~240VAC Power Input
- Power Switch
- GND



## HDS-7332HFI-HDMI:



**Note:** HDS-7324HFI-HDMI model provides 24 video input interfaces on the rear panel.

- ① MAIN VIDEO OUT, SPOT VIDEO OUT
- ② VIDEO IN
- ③ AUDIO OUT(CVBS/VGA), RCA Connector
- ④ LINE IN
- ⑤ AUDIO IN, RCA Connector
- ⑥ VGA Interface
- ⑦ HDMI Interface
- ⑧ USB Interface
- ⑨ LAN Network Interface
- ⑩ RS-232 Interface
- Termination Switch
- RS-485, Keyboard Serial Interface
- ALARM IN, ALARM OUT
- eSATA Interface
- GND
- 110~240VAC Power Input
- Power Switch

# Specifications

Model		HDS-7304 HFI-HDMI	HDS-7308 HFI-HDMI	HDS-7316 HFI-HDMI	HDS-7324 HFI-HDMI	HDS-7332 HFI-HDMI
Video/Audio input	Video compression	H.264				
	Video input	4-ch	8-ch	16-ch	24-ch	32-ch
	Video input interface	BNC (1.0 Vp-p, 75 Ω), PAL /NTSC self-adaptive				
	Audio compression	G.711u				
	Audio input	4-ch, RCA (2.0 Vp-p, 1 kΩ)				
	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				
	Video spot out	1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 × 480				
	Encoding resolution	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	2-ch, RCA (Linear, 600 Ω)				
	Audio bit rate	64 Kbps				
	Dual-stream	Support; Sub-stream: CIF / QCIF @ 25 fps (P) / 30 fps (N)				
	Stream type	Video, Video & Audio	Channel1-4: Video, Video & Audio; Other channels: Video			
	Synchronous playback	4-ch	8-ch	16-ch		
Hard disk	SATA	4 SATA interfaces				
	eSATA	1 eSATA interface				
	Capacity	Up to 4TB capacity				
External interface	Network interface	1, RJ45 10M / 100M / 1000M Ethernet interface				
	Serial interface	1 RS-232, RS-485(half-duplex), Keyboard			1 RS-232, RS-485(full-duplex), Keyboard	
	USB interface	3 × USB 2.0				
	Alarm in	4	8	16	16	
	Alarm out	1	4	4	8	
General	Power supply	100~240VAC, 5A, 50~60Hz				
	Consumption (without HDD or DVD-R/W)	≤ 25 W	≤ 30 W	≤ 35 W	≤ 40 W	
	Working temperature	-10 °C ~+55 °C				
	Working humidity	10% ~ 90%				
	Chassis	19-inch rack-mounted 1.5U chassis				
	Dimensions (W × D × H)	445 × 390 × 70 mm				
	Weight (without HDD or DVD-R/W)	≤ 5 kg				