

DS-6904UDI Ultra High Definition Decoder



DS-6900UDI Series decoders are developed on the basis of embedded hardware platform. DS-6904UDI supports HDMI 1.4, BNC (to DB15) output port decoding, and multiple video stream formats, like H.265, H.264, MJPEG, H.264+ and H.265+ with strong decoding performance. It supports H.265/H.264 decoding with resolution of no more than 3200 W and 4K ultra high definition outputs. It is a new generation of decoder launched by our company for HD network cameras, which can be widely used in various video security system projects.

Video Input

- Support computer, video conference terminals and so on video input signal source; support HDMI and HDMI 4K signal inputs.
- Support network camera, NVR, and other device types as network signal source inputs
- Support HDMI embedded audio input; audio input supports 16 bit and 48K Hz sampling, two-channel and stereo sound.
- Support 2-ch 1080@50/60 or 1-ch 4K@30 by HDMI 1.4 local directory input.

Video Output

- Support HDMI 1.4 video signal output with 4K (3840 × 2160@30 Hz) ultra high definition output.
- Support two audio output methods: HDMI embedded audio and external audio output.
- Adopting frame synchronization technology to ensure complete synchronization of images from all output ports, complete graphics, smooth playback, no jamming or stuttering, no tearing or stitching.

Video Encoding and Decoding

- Adopting H.264/H.265 encoding standard, the default is H.264, supporting sub-stream and main stream encoding.
- Support decoding of network sources such as IP cameras/NVR, decoding of sub-stream and main stream, and set automatic sub-stream extraction for segmented images.
- The device has 64 video decoding channels, supporting 32-ch 200 W or 64-ch 720p video decoding on the wall simultaneously.
- Support decoding streams of multiple resolution no more than 3200 W.
- H.264, H.265, H.264+, H.265+, MJPEG, HIK264 video compression decoding.
- PS, RTP, TS, ES encapsulation formats.
- G.722, G.711A, G.726, G.711U, MPEG2-L2, AAC, MP3, PCM audio compression decoding.
- Support front-end corridor mode decoding and up to 2560 × 1440 decoding output.
- Two decoding modes: active decoding and passive decoding.
- Support encryption stream, multi-track stream, and intelligent stream decoding; support stream modification and switching; support decoding exception prompt.

- Support remote video files decoding output.

Video Wall

- Support single sided video wall splicing, window opening, window cross screen roaming, scene rotation, and window rotation functions, with single screen support for three 1080p or 1.5 4K layers.
- Support 1/2/4/6/8/9/12/16/25 screen splitting.
- Support scenes configuration up to 64 scenes.
- Support 256 contingency plans rotation groups, each plan can be customized with setting points, scenes, and time.
- Support split screen sub-window double click to zoom in and zoom out.
- Support display output channel number.
- Support video wall interface to deal with network signal sources in eight directions, including automatic scanning, aperture, adjusting, focusing, and calling preset points.
- Support video wall window start/stop preview, start/stop decoding, start/stop polling, turn on/off sound, set top/bottom, and other operations.
- Support video playback function, and can start/stop playback and time selection for video recording.
- Support the use of smart wall clients to cast the desktop screen on the wall.
- Support RTP/RTSP protocol for network source preview.

Device Access

- Support docking with 3200 W eagle eye, fish eye, and conventional front-end network cameras, DVR, NVR, and XVR devices, compatible with mainstream third-party manufacturer security system devices.
- Support the platform to integrate the decoding devices by SDK.
- Support ONVIF and GB28181 protocol to access the decoder.
- Support LCD information interactive, including display information acquirement, image configuration, series ports control, time synchronization, backlight parameters configuration and acquirement, output port disconnected automatically, error code uploaded.

Maintenance

- Support network keyboard/serial port keyboard access for device control, and perform video screen switching, group operation and rotation, field switching, PTZ control, video wall playback, etc. through keyboard operation.
- Support PC client, login and operation through web browser.
- Chrome 45+ support.
- Built-in gigabit switching network that supports optoelectronic adaptation, link aggregation, and NAT function.
- Support remote acquisition, and configuration of parameters, as well as remote export and import of parameters.
- Support remote system working status and system logs acquirement.
- Support daily maintenance such as remote reboot, restore default setting and upgrading.
- Support auto-check and alarm, including network disconnect, IP conflict, illegal access, temperature exceeding limits, abnormal fan status, abnormal decoding signal source and device.
- Support user permission management, allowing users with different permissions to use designated resources and operate designated video wall modules.
- Support visual maintenance, display the main control and subsystem network topology structure and keynote network status on the maintenance interface.
- Support NTP time synchronization and manual time synchronization.

▪ Specification

Model		DS-6904UDI
Interface	Network Interface	RJ45 × 1, 10 M/100 M/1000 Mbps self-adaptive Ethernet interface Optic Interface × 1, 100 base-FX/1000 base-X Supports optoelectronic adaptation
	Alarm In	8-ch alarm in
	Alarm Out	8-ch alarm out
	Serial Interface	RS-232 (RJ45) × 1, RS-485 × 1
	USB Interface	USB 2.0 × 2
Video Wall Parameters	Video Wall No.	1
	Video Wall Size	≤ 4
	Split Window	Yes
	Split Screen	1, 2, 4, 6, 8, 9, 12, 16, 25
	Screen Layer	1080p × 3 or 4K × 1.5
	Window Layer	Screen Layer NO. × Interface No.
	Scene No.	64
	Scene Auto-Switch Delay	3 s
	Contingency Plans NO.	Support 256 platform contingency plans
	Base Image No.	Background color only
	Subtitle No.	N/A (optional to support)
	Local Signal Source Decoding Delay	120 ms
	Decoding Signal Source Delay	120 ms
General	Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
	Working Humidity	10% to 90%
	Net Weight	≤ 5.20 Kg (11.46 lb)
	Gross Weight	≤ 6.28 Kg (13.85 lb)
	Dimensions(W × D × H)	440 mm × 320.8 mm × 44.5 mm (17.32 inch × 12.63 inch × 1.75 inch)
	Power Supply	Build-in 220 VAC
	Power Consumption	< 50 W
	Packing List	Decoder × 1 DB15M to 4 × BNC (4-ch CVBS Video Patch Wire) × 1 DB15M to 4 × BNC (4-ch Audio Patch Wire) × 1 User Guide × 1 Ear Bag × 10 Power Cord × 1 Foot Pad × 4 Grounding Wire × 1
Video Input	Video Input Resolution	3840 × 2160@30 Hz, 1920 × 1080@50 Hz, 1920 × 1080@60 Hz, 1280 × 720@50/60 Hz
	Video Input Interface Type	2-ch: HDMI 1.4
	Max. Input Resolution	4K (optional to support)
Video Encoding	Video Encoding Format	H. 265/H.264 Default H.264
	Video Encoding Channel	2
	Video Encoding Performance	1-ch: 4K 30 2-ch: 1080p 60
Audio Input	Audio Input Interface No.	2
	Audio Input Interface Type	HDMI embedded

Audio Encoding	Audio Encoding Format	G722.1, G711U, G711A, AAC
Video Output	Output Interface Type	HDMI 1.4
	Output Interface NO.	4
	Max. Output Resolution	4K
	Output Resolution	3840 × 2160@30 Hz, 2560 × 1440@30 Hz, 1920 × 1200@60 Hz, 1920 × 1080@60 Hz, 1920 × 1080@50 Hz, 1680 × 1050@60 Hz, 1600 × 1200@60 Hz, 1280 × 1024@60 Hz, 1280 × 720@60 Hz, 1280 × 720@50 Hz, 1024 × 768@60 Hz
	Output Interface(DB15 to BNC)	1-ch: DB15 to BNC
	Output Resolution(BNC)	PAL: 704 × 576, NTSC: 704 × 480
Video Decoding	Video Decoding Format	H.264, H.265, H.264+, H.265+, MJPEG
	Decoding Resolution	Up to 3200 W
	Video Decoding Channel	64
	Video Decoding Performance	Support 2-ch 3200 W/2400 W/4-ch 1200 W/8-ch 800 W/10-ch 600 W/16-ch 400 W/32-ch 1080p and below real-time decoding(4 outputs in a group, sharing decoding capabilities)
Audio Output	Audio Output Interface No.	4
	Audio Output Interface Type	HDMI embedded or DB15 to BNC independent audio output
Audio Decoding	Audio Decoding Format	G711A, G711U, G722.1, G726-16/U/A, MPEG, AAC-LC

Physical Interface

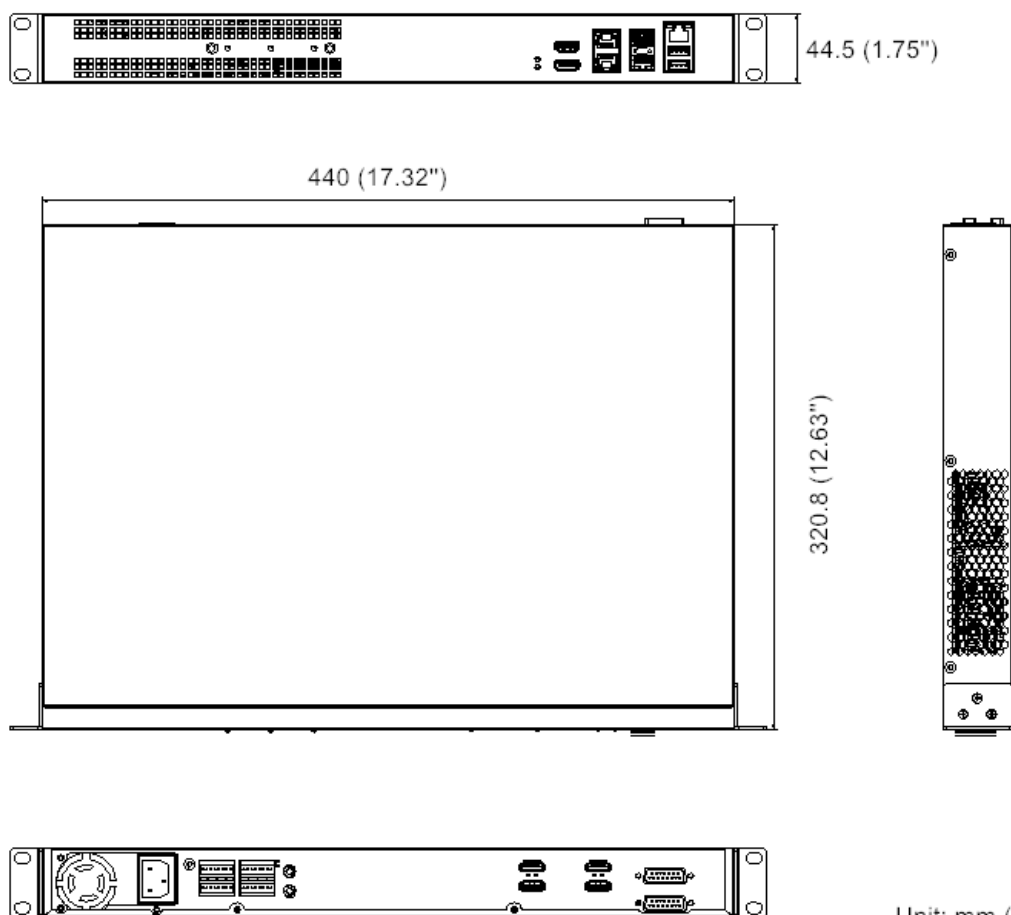
Front Panel	Description	Rear Panel	Description
CPU	System running status indicator, green for normal working status	AUDIO OUT	Audio Output Interface
PCIE	Internal communication status indicator, green for normal working status	VIDEO OUT	Video Output Interface
POWER	Power supply indicator, red for normal working status	HDMI OUT	HDMI Output Interface
HDMI IN1	HDMI Input Interface 1	RS-485	RS-485 Interface
HDMI IN2	HDMI Input Interface 2	ALARM IN	Alarm Input Interface
USB	USB 2.0 Interface	ALARM OUT	Alarm Output Interface
G	1000 M Switching Network Interface		
OPT 1	1000 M Optical Interface 1		
RS-232	Device Debugging Serial Port		



Available Model

DS-6904UDI(C)

Dimension



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