灰度科技
HUIDU TECHNOLOGY

PRODUCT SPECIFICATION

Smart Multimedia Player

HD-H6

Version: V1.0

Update history:

Release version	Release time	Update Notes
V 1.0	Nov. 22, 2024	First release

1. Overview

HD-H6 is a new eight-port smart multimedia player that integrates a player, third-party APP messaging, and local program production. It can replace a computer to directly produce and play programs on terminal devices. It has powerful interactive and broadcast control capabilities, supports remote control of LED screens, and supports optional wireless screen projection on Windows, iOS, Android and other platform terminals. It supports the access of peripherals such as central control, cameras, speakers, sensors, etc., has rich hardware interfaces and flexible broadcast control functions, and is widely used in different application scenarios such as conference rooms, exhibition halls, educational spaces, and hotel lobbies.

2. Features

Inputs:

1. One Gigabit Ethernet port connects to the network and communicates with the outside world via TCP/UDP.
2. Two HDMI 1.4 inputs, supporting cascade splicing and picture-in-picture functions.
3. One SFP optical port input, supporting cascade splicing and copy display.
4. Two USB ports (USB2.0/USB3.0) for USB flash drive program playback, firmware upgrade or capacity expansion, etc.
5. One OTG interface (custom OTG/USB mode, default USB function).
6. One sensor interface, for connecting external environmental monitoring sensors or GPS, etc.
7. One RS232 and one RS485 interface (central control docking).
8. One RELAY relay interface.

Outputs:

1. Six-way Gigabit Ethernet output, cascaded HD receiving card display.
2. One HDMI OUT signal output for cascade signal loop-out or image monitoring.
3. One SFP OUT cascade signal output, used as the data source for cascading the SFP IN of the next device.
4. One TRS 3.5mm standard two-channel audio output.

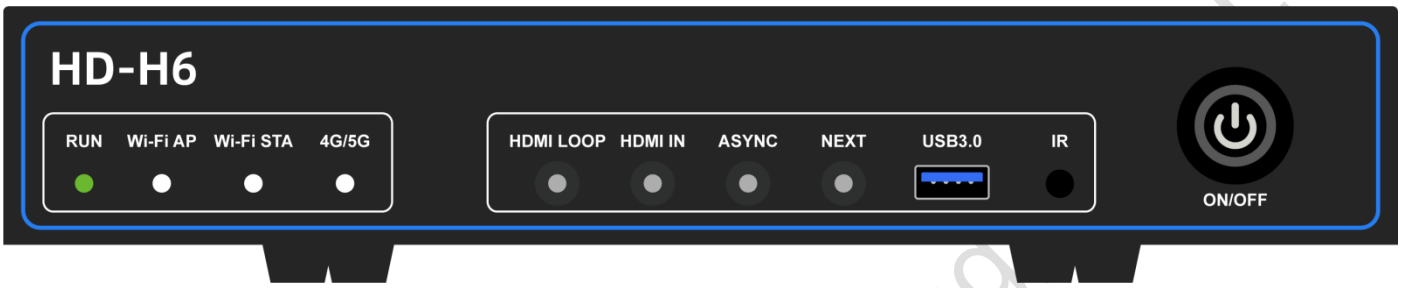
Features:

1. Support third-party APP messaging.
2. Supports local program editing, production and playback.
3. The total load is 3.93 million pixels, the widest is 65,536 pixels or the highest is 8192 pixels.
4. Multiple cascade modes, HDMI cascade, optical port cascade, support optical fiber long-distance transmission.
5. Multi-platform wireless screen projection, supporting Windows, iOS, Android platforms and screen projection devices.
6. Dual Wi-Fi chips, support 2.4G/5G frequency bands, support high-resolution, low-latency screen projection, and support simultaneous opening of Wi-Fi hotspots and wireless Internet access.
7. Video playback performance: 2-channel 4K or 6-channel 1080P or 10-channel 720P or 20-channel 360P.
8. Supports Bluetooth voice control, and supports connections to common peripherals such as Bluetooth speakers, keyboards, and mice.

9. Supports infrared standby wake-up, enters low power consumption mode in standby mode, and the standby power consumption is less than 0.5W.
10. One RS232 or one RS485 central control connection.

3. Appearance Description

Front Panel:

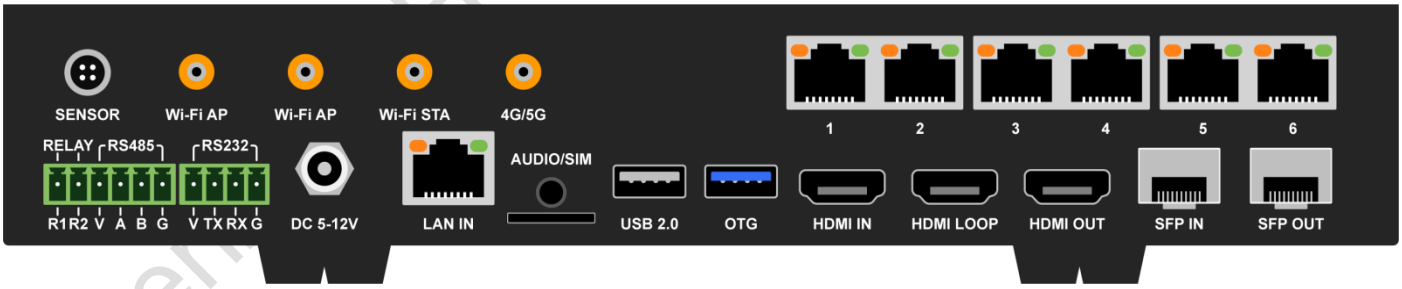


Name	Interface	Illustrate
RUN	Operating system indicator light	Green light flashing: The operating system is running normally The green light is always on or off: The operating system is running abnormally
Wi-Fi AP	AP Indicator	The light is off: AP mode is not enabled or abnormal Green light flashes: AP mode is normal Red light flashes: AP mode is abnormal
Wi-Fi STA	STATION indicator	Red light is always on: STA mode is turned on but the router is not bridged Yellow light is always on: the bridge is connected to the router, but not to the cloud server. Green light is always on: the router is bridged and connected to the cloud server

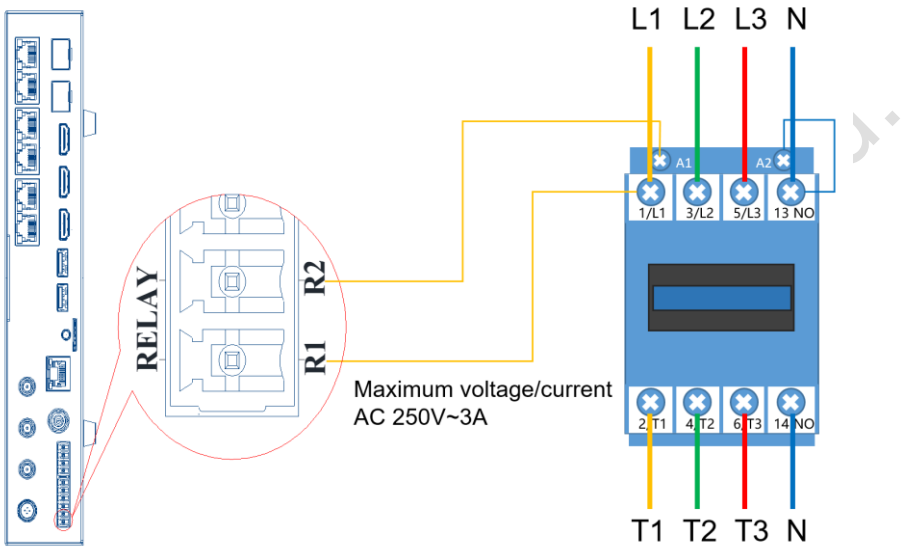
		Red light flashes or is off : STATION abnormality
4G/5G	4G/5G indicator	Red light flashing: No SIM card detected Red light is always on: SIM card is in arrears or there is no signal Yellow light is on: The mobile network is normal, but the cloud server is not connected. Green light is always on: The mobile network is normal and connected to the cloud server
HDMI LOOP	Signal source button light	Light off: The current signal source is not in HDMI LOOP mode Green light is always on: Synchronous mode, the input source is normal Green light flashes: Synchronous mode, detect input source abnormality
HDMI IN	Signal source button light	The light is off: The current signal source is not in HDMI IN mode Green light is always on: Synchronous mode, the input source is normal Green light flashes: Synchronous mode, detect input source abnormality

ASYNC	Synchronous and asynchronous switching button light	The light is off: The current signal source is not in ASYNC mode Green light is always on: asynchronous playback
NEXT	NEXT button	Default program switching function, the software can be set to screen test function
USB 3.0	U disk interface	Material storage , program update , firmware upgrade or capacity expansion
IR	IR signal receiving head	Infrared remote control signal reception, no infrared indicator light, recommended operation within 10 meters
ON/OFF	Power switch button	Press the button inward: the device turns on and the power button light is always on The button bounces outward: the device is turned off and the power button light is off

Rear Panel:



Name	Interface	Illustrate
SENSOR	Sensor interface	TTL level interface, connect external sensor accessories, such as environmental monitoring, multi-function sensor or GPS, etc.

RELAY	Relay interface	2PIN Phoenix terminal, reserved relay interface; R1, R2: relay switch signal; 
RS485	RS485 interface	4PIN Phoenix terminal, supports central control protocol V: 3.3V positive A: 485 A positive terminal B: 485 B negative terminal G: GND power negative pole
RS232	RS232 interface	4PIN Phoenix terminal, supports central control protocol V: 3.3V positive TX: Send data RX: Receive data G: GND power negative pole
DC 5-12V	Power interface	5V 6A ,12V 3A
Wi-Fi AP	Antenna interface x2	For connecting Wi-Fi/Bluetooth antenna
Wi-Fi STA	Antenna interface x1	For connecting Wi-Fi antenna
4G/5G	Antenna interface x1	For connecting 4G/5G antenna
LAN IN	Input network port	Gigabit network port, communicate with the outside world via TCP/UDP

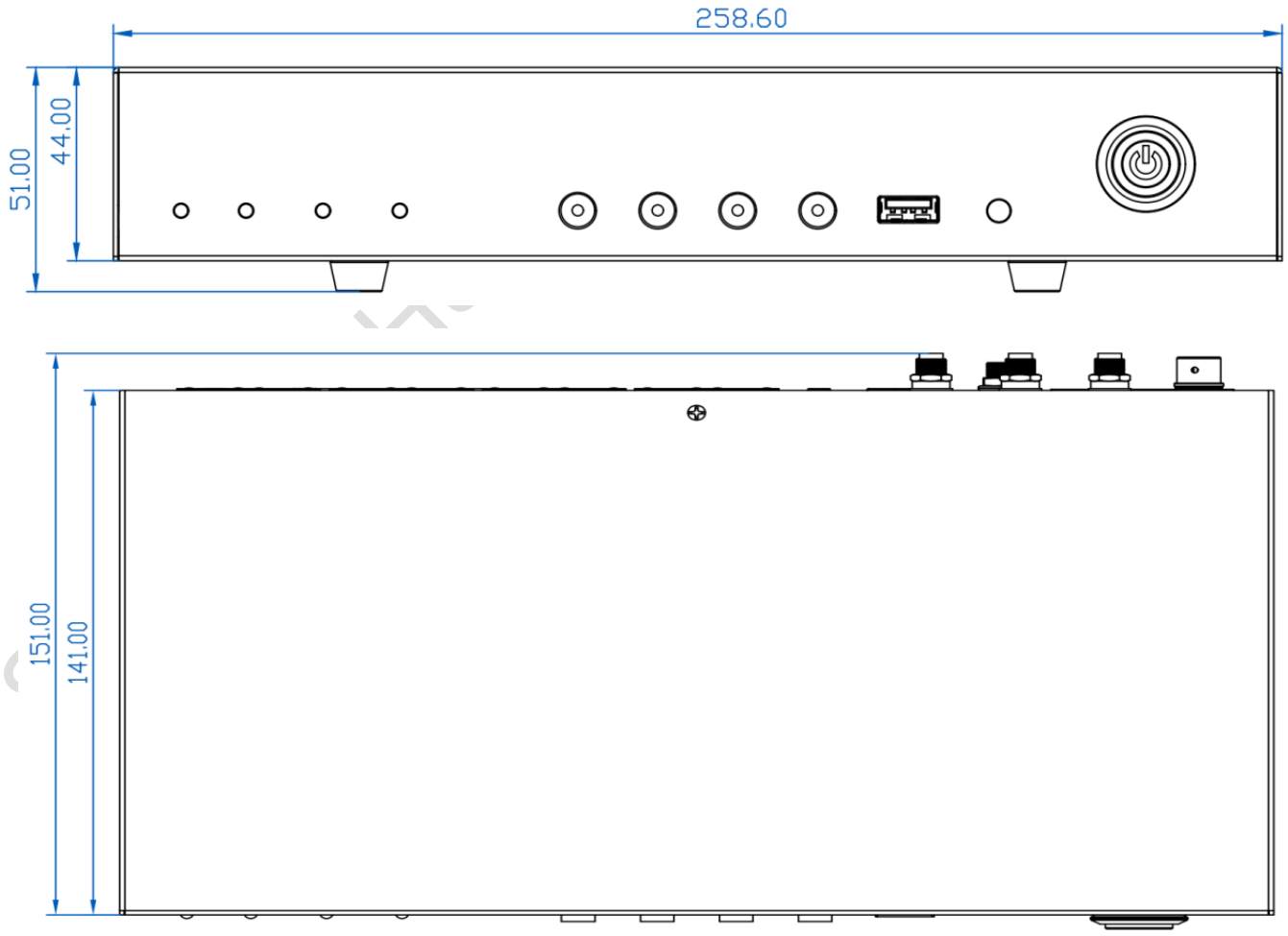
SIM	SIM card slot	Installing the Micro SIM Card
AUDIO	Audio Interface	TRS 3.5mm standard dual-channel audio output port
RECOVERY	Factory reset button	The button is inside the audio port. When the device is powered on, use a thin object (toothpick) to pass through the AUDIO port and press the RECOVERY button inside for 20 seconds and then release it to enter the factory reset.
USB2.0	USB interface	Material storage, program update, firmware upgrade or capacity expansion
OTG	USB interface	USB3.0 material storage, program update, firmware upgrade or capacity expansion (default USB flash drive function, factory configurable)
HDMI IN	Signal source input interface	HDMI1.4 interface, supports adaptive scaling Recommended resolution 1920×1080@60Hz Maximum resolution 3840×2160@30Hz Minimum resolution 800×600@60Hz Support custom resolution Support HDCP 1.4
HDMI LOOP	Signal source input interface	HDMI1.4 interface, synchronous signal input or splicing input interface Maximum resolution 2048×1152@60Hz Minimum resolution 800×600@60Hz Support custom resolution
HDMI OUT	Signal source output interface	HDMI1.4 interface, used for cascade data loop-out or image monitoring
SFP IN	Optical module input interface	Cascade signal input, cascade H8 devices for splicing display

SFP OUT	Optical module output interface	Cascade signal output, used as the data source of the SFP IN of the next device Long distance transmission cascade FT08 copy display (special firmware required)
Network ports 1-8	Output network port	8-way RJ45 output network port, cascaded HD receiving card display

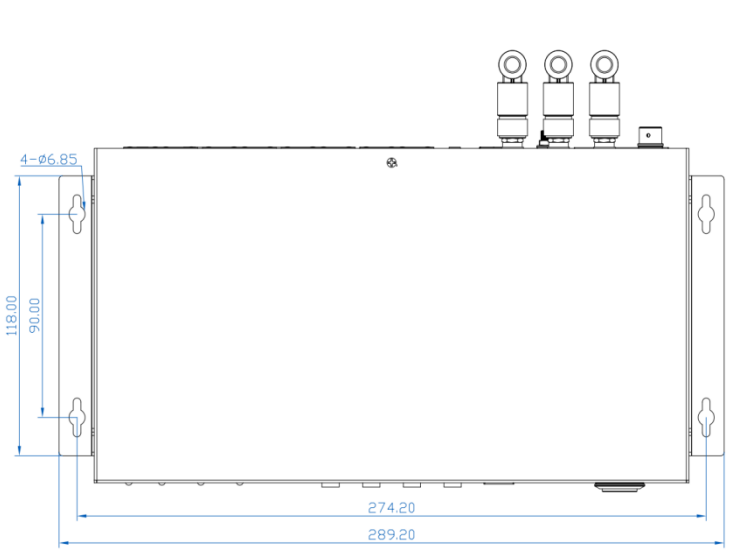
4. Dimensions

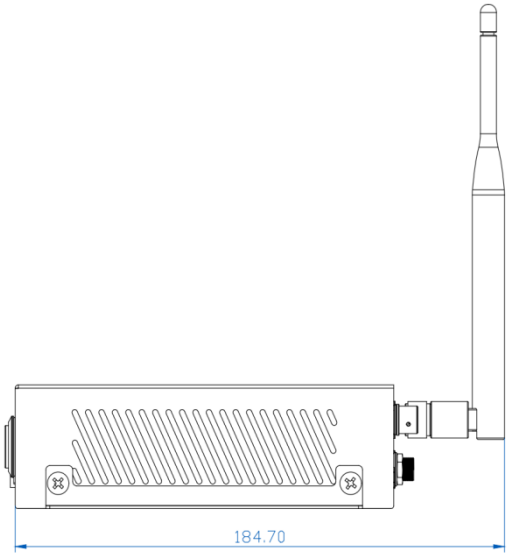
Unit: mm

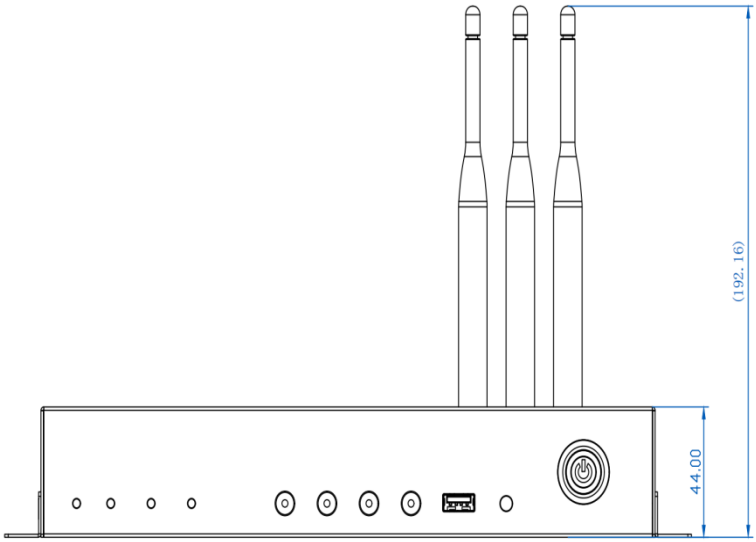
Single device:

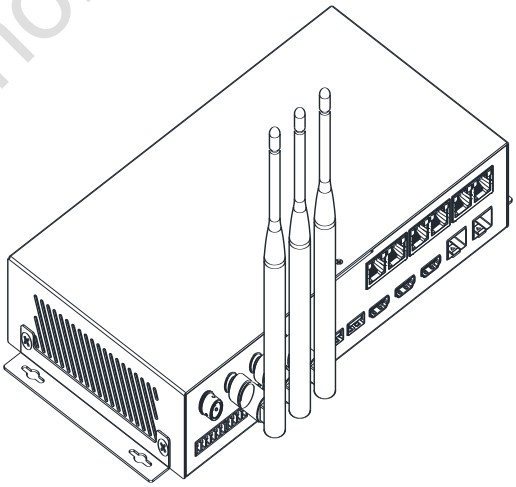


With mounting ears and antenna:









Tolerance: ±0.3 Unit: mm

Specifications:

Electrical parameters	Input Power	DC 5V-12V (5V 6A, 12V 3A)
	Maximum power consumption	21W
Storage Space	Running Memory	4GB
	Internal Storage	64GB
Storage Environment	temperature	-40℃～80℃
	humidity	0%RH～80%RH (no condensation)
Work Environment	temperature	-40℃～70℃
	humidity	0%RH～80%RH (no condensation)
size	289.2mm×141mm×44mm (including mounting ears)	
net weight	1.30KG	
Protection level	IP20 Please note that it is waterproof, such as preventing water from dripping into the product, and do not wet or rinse the product	
System Software	Android11.0 operating system software Android terminal application software FPGA software	

Packaging Information	Packing List: 1×H8 1 × Power Adapter 1 × HDMI cable 3×Wi-Fi antenna 1×Bluetooth remote control 1×certificate of conformity

Optional list:

Fiber Optic Module	SFP optical module, used for optical port cascading splicing
Fiber Optic Cable	Optical fiber lines, used for long-distance signal transmission
Wireless screen projection code	Screen projection authorization code, used after the screen projection function is activated
USB screen projector	Wireless screen projection device, plug and play, you need to activate the device before use
4G/5G Module	Optional 4G/5G modules according to different regions, used with 4G/5G antennas

Media decoding specifications:

Picture format:

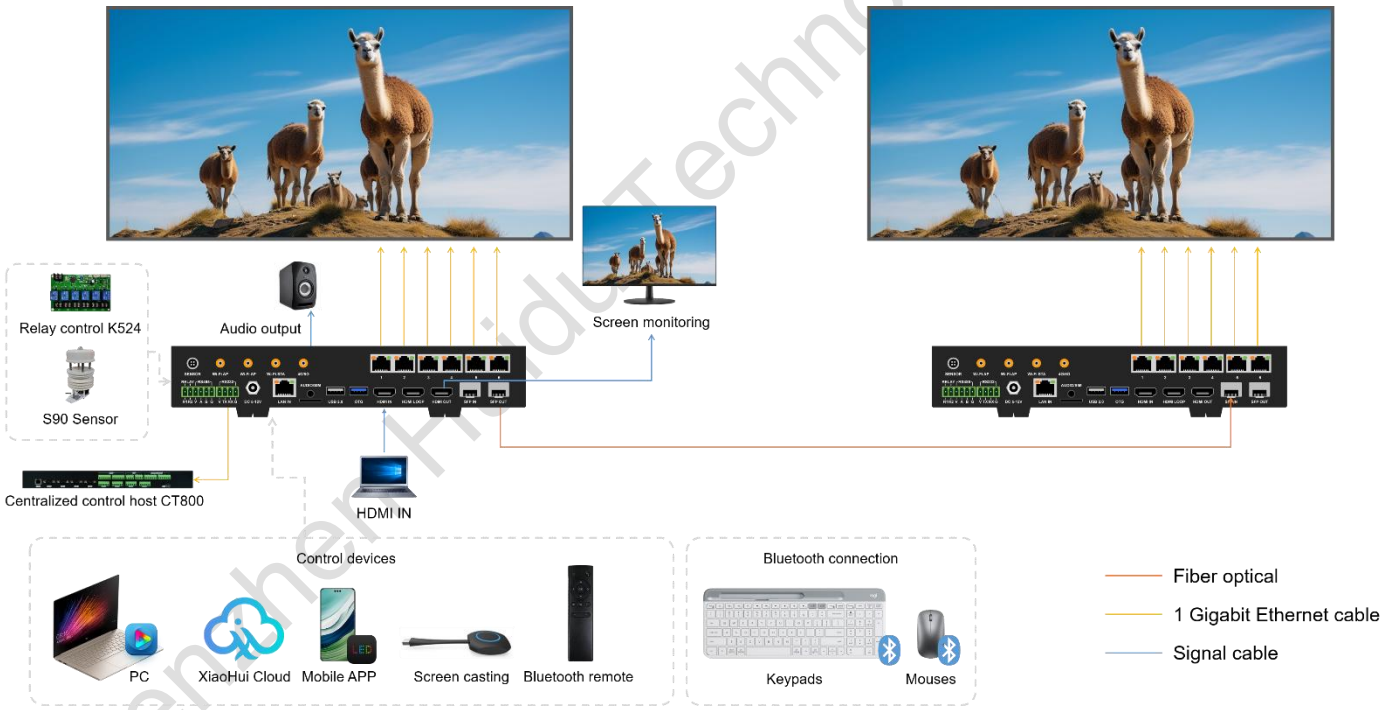
Category	Decoding	Size	Format	Remark
JPEG	JFIF file format 1.02	48x48piels to 65536×65536 pixels	JPG, JPEG	
BMP	BMP	No restrictions	BMP	NA
GIF	GIF	No restrictions	GIF	NA
PNG	PNG	No restrictions	PNG	NA
WEBP	WEBP	No restrictions	WEBP	NA

Video format:

Category	Decoding	Resolution	Maximum frame rate	Maximum bit rate	Format	Remark
MPEG-1/2	MPEG-1/2	48×48 pixels to 1920×1088 pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support Field Coding
MPEG-4	MPEG4	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	Does not support MS, MPEG4 v1/v2/v3, GMC
H.264/AVC	H.264	16×16 pixels to 4096×2304 pixels	2304P@60fps	80Mbps	AVI, MKV, MP4, MOV, 3GP, TS, FLV	Support Field Coding, MBAFF
MVC	H.264 MVC	16×16 pixels to 4096×2304 pixels	2304P@30fps	100Mbps	MKV 、TS	Only supports Stereo High Profile
H.265/HEVC	H.265/HEVC	64×64 pixels to 4096×2304 pixels	2304P@60fps	100Mbps	MKV, MP4, MOV, TS	Support Main Profile, Tile & Slice
GOOGLE VP8	VP8	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	WEBM, MKV	NA
GOOGLE VP9	VP9	64×64 pixels to 4096×2304 pixels	60fps	80Mbps	WEBM, MKV	NA

H.263	H.263	SQCIF(128×96) QCIF(176×144) CIF(352×288) 4CIF(704×576)	30fps	38.4Mbps	3GP, MOV, MP4	Does not support H.263+
VC-1	VC-1	48×48 pixels to 1920×1088 pixels	30fps	45Mbps	WMV, ASF, TS, MKV, AVI	NA
MOTION JPEG	MJPEG	48×48 pixels to 1920×1088 pixels	60fps	60Mbps	AVI	NA

5. Application Scenarios



Illustrate:

1. For details of the H8 smart multimedia player box product package in the application scenario diagram, please refer to the packing list.
2. Optional equipment not included in the scene diagram needs to be ordered separately. If you have any questions, please contact our business colleagues.

6. Product Appearance

Illustrate:

Due to factors such as production batches, production processes, and functional upgrades, our company will appropriately adjust and revise relevant pictures, text descriptions, product parameters, and other related content. In the event of the above circumstances, no further notice will be given. The product pictures in the specification are for reference only. Please refer to the actual product.