灰度科技
HUIDU TECHNOLOGY

PRODUCT SPECIFICATION

Multimedia Player

HD-A5L

Version 1.0

Ⅰ. Product Overview

A5L is an LED display multimedia player that supports playing videos, pictures, GIF animations, texts, WPS documents, tables, clocks, timing, and other programs. It integrates functions such as asynchronous playback, synchronous playback, supporting multi-terminal control and release programs.

Standard configuration of Wi-Fi, support mobile phone APP - "LedArt" wireless control; support mobile phone/tablet wireless screen display; support access to the "XiaoHui Cloud" platform, easy to achieve Internet remote cluster management; The capacity storage space makes asynchronous playback worry-free; it supports external connection of various environmental monitoring sensors to realize real-time viewing of environmental monitoring data.

A5L has high video playback performance, added terminal network security protection mechanism, simple software operation, complete functions, and ultra-high cost performance. It can be applied to LED displays in various commercial display, smart display and other fields.

Ⅱ. Product Features

Input:

1. Support 1 Gigabit communication network port for debugging parameters, faster program sending speed;

2. Support 1 HDMI IN input interface, support automatic zooming of synchronous pictures, and support synchronous and asynchronous picture-in-picture functions;

3. Support 1 channel USB2.0 (custom OTG/USB mode), 1 channel USB3.0 communication interface, which can be used for inserting programs and expanding capacity;

4. Supports 2 channels sensor input interface, externally connected to various environmental monitoring sensors.

Output:

1. Standard 2 Gigabit output network ports, directly cascaded HD-R series receiving card control display;

2. The maximum control range is 1.3 million pixels, the maximum horizontal (discounted) support is 16384 pixels, and the maximum vertical support is 4096 pixels;

3. 1 channel TRS 3.5mm standard two-channel audio output.

Functions:

1. Standard 2.4GHz Wi-Fi, support mobile phone APP wireless control (support STA mode, in this mode, the device can connect to the nearby Wi-Fi network);

2. Support multi-channel video window playback (support up to 2-channel 4K or 6-channel 1080P or 10-channel 720P or 20-channel 360P);

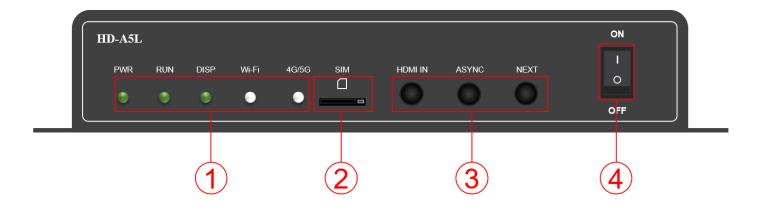3. Support synchronous and asynchronous switching playback;

4. Support 4G/5G (optional) access to XiaoHui Cloud platform to realize Internet remote cluster management;

5. Support mobile phone, tablet and computer wireless projection.
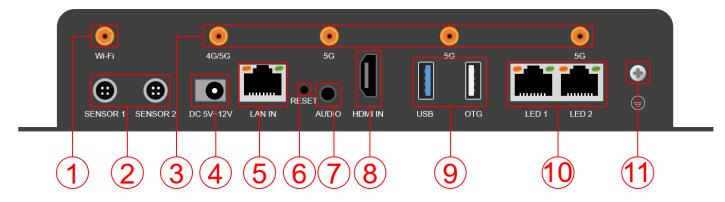
Ⅲ. Appearance Description

Front panel：

Serial number	Name	Description
1	Working light	**PWR**：Power indicator light, the green light is always on, and the power input is normal **RUN**：System running light, the green light is flashing, the operating system is running normally; the green light is always on or off, the system is running abnormally **DISP**：Display indicator, green light flashes, the FPGA system is running normally; the green light is always on or off and the system is running abnormally **Wi-Fi**：Wireless indicator light, in AP mode, the green light is blinking; in STA mode, the green light is always on. The red light is blinking, the Wi-Fi is abnormal, and the light is off; the Wi-Fi

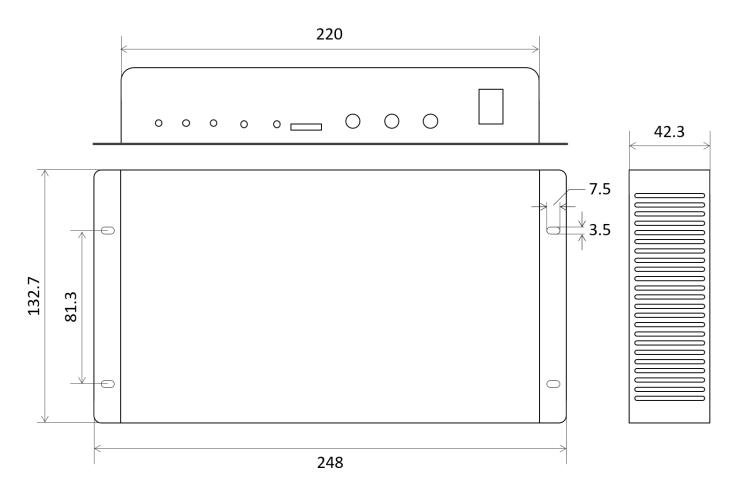|		bridge cannot connect to the server, and the yellow light is always on
		4G/5G：Communication network indicator, green light is always on, the connection to the cloud server is successful; yellow light is always on, the cloud service cannot be connected; red light is always on, there is no signal or the SIM is in arrears or cannot dial; the red light is blinking, the SIM cannot be detected; No light, no module detected
2	SIM card slot	Nano SIM card slot, providing 4G/5G networking for remote control (optional 4G/5G module)
3	Function button	**HDMI IN**：HDMI signal input, synchronous playback **ASYNC**：Asynchronous mode switching **NEXT**：Switch program play
4	Switch	Control the power of the player box, ON means power on and OFF means power off

Rear panel:

Serial number	Name	Description
1	Wi-Fi antenna	Connect Wi-Fi antenna to enhance wireless signal
2	Sensor	External temperature, humidity, brightness, wind speed, wind direction, noise, PM2.5, PM10, CO_2 and other sensors
3	4G/5G antenna	Connect 4G/5G antenna (4G with 1 antenna, 5G with 4 antennas, optional)
4	Power supply	5V 3A ,12V 1.5A
5	Input network port	Gigabit input network port, connect to computer to debug and release programs, can be used to access LAN or Internet
6	Reset	Reset pinhole
7	Audio output	TRS 3.5mm standard two-channel audio output port
8	HDMI	**HDMI IN**：HDMI1.4 synchronous signal input interface, support adaptive scaling
9	USB	**USB**：USB3.0 for updating programs, inserting programs or expanding capacity

		OTG：Used for debugging or upgrading firmware (default USB 2.0 function, factory configurable)
10	Output network port	Gigabit output network port, cascaded with HD-R series receiving card
11	Ground wire	Ground wire connection port

IV. Product Parameters

Dimensions (mm):

Tolerance: ±0.3 Unit: ㎜

Product Specifications:

Electrical parameters	Input power	DC 5V-12V
	Maximum power consumption	18W
Storage Space	Random access memory	2GB
	Internal storage	16GB
Storage environment	Temperature	-40℃～80℃
	Humidity	0%RH～80%RH (No condensation)
Working environment	Temperature	-40℃～70℃
	Humidity	0%RH～80%RH (No condensation)
Packaging information	list: 1×A5L 1 x HDMI cable 1 x power adapter 1×WiFi Glue Stick Antenna 1× Certificate of qualification Note: 4G/5G antennas are optional with 4G/5G modules 1/4	
Size	287mm×140.3mm×42.3mm	
Net weight	1004g	
Protection degree	IP20 Please pay attention to water resistance, e.g. prevent water dripping into the product, do not get wet or rinse the product	

System software	Android11.0 operating system software
	Android terminal application software
	FPGA software

Media decoding specifications:

Pictures

Category	Decoding	Size	Format	Remarks
JPEG	JFIF file fommat 1.02	96x32piels to 817×8176 pixels	JPG、JPEG	Non-interlaced scanning is not supported; SRGB JPEG is supported; Adobe RGB JPEG is supported
BMP	BMP	Unlimited	BMP	NA
GIF	GIF	Unlimited	GIF	NA
PNG	PNG	Unlimited	PNG	NA
WEBP	WEBP	Unlimited	WEBP	NA

Videos

Category	Decoding	Resolution	Maximum frame rate	Maximum bit rate (Ideal situation)	Format	Remarks
MPEG-1/2	MPEG-1/2	48×48 pixels to 1920×1088 pixels	30fps	80Mbps	DAT、 MPG、 VOB、TS	Support Field Coding
MPEG-4	MPEG-4	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	AVI、 MKV、 MP4、 MOV、 3GP	MS, MPEG4 v1/v2/v3, and GMC are not supported
H.264/AVC	H.264	48×48 pixels to 4096×2304 pixels	2304P@60fps	80Mbps	AVI、 MKV、 MP4、 MOV、 3GP、 TS、FLV	Field Coding, MBAFF are supported
MVC	H.264 MVC	48×48 pixels to 4096×2304 pixels	2304P@60fps	100Mbps	MKV 、 TS	Only Stereo High Profile is supported
H.265/HEVC	H.265/HEVC	64×64 pixels to 4096×2304 pixels	2304P@60fps	100Mbps	MKV 、 MP4、 MOV 、 TS	Main Profile, Tile & Slice are supported

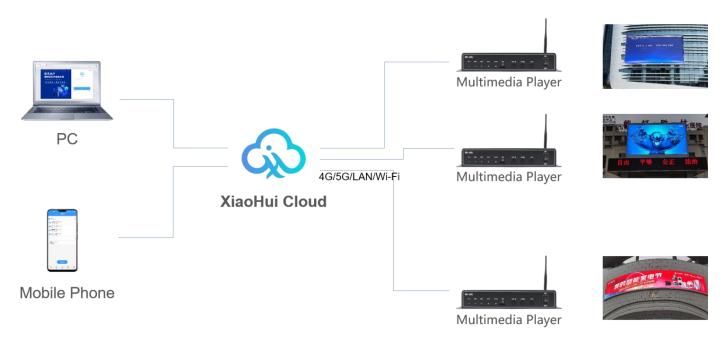| GOOGLE VP8	VP8	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	WEBM 、 MKV	NA
GOOGLE VP9	VP9	64×64 pixels to 4096×2304 pixels	60fps	80Mbps	WEBM 、 MKV	NA
H.263	H.263	SQCIF(128×96) QCIF(176×144) CIF(352×288) 4CIF(704×576)	30fps	38.4Mbps	3GP、 MOV、 MP4	H.263+ is not supported
VC-1	VC-1	48×48 pixels to 1920×1088 pixels	30fps	45Mbps	WMV、 ASF、 TS、 MKV、 AVI	NA
MOTION JPEG	MJPEG	48×48 pixels to 1920×1088 pixels	60fps	60Mbps	AVI	NA

Ⅴ. Application Scenarios

1. Single-node control, support Wi-Fi, network port direct connection, USB interface for communication.
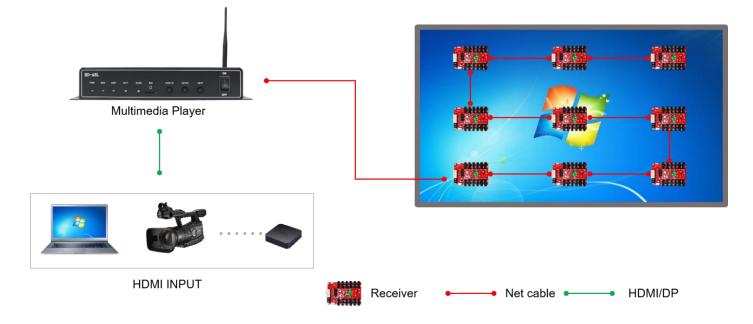

2. Cluster control, support Internet remote control.

3. Synchronous control, through HDMI signal input, synchronous playback.

Multimedia Player

HDMI INPUT

Receiver ●━━━━━● Net cable ●━━━━━● HDMI/DP

VI. Product Appearance

Illustration:

Welcome to choose Huidu Technology products. There may be differences between the product pictures in the specification and the actual appearance (such as interface caps, antenna installation, etc.), please refer to the actual product. If you have any questions, please contact technical support or salesperson for confirmation.