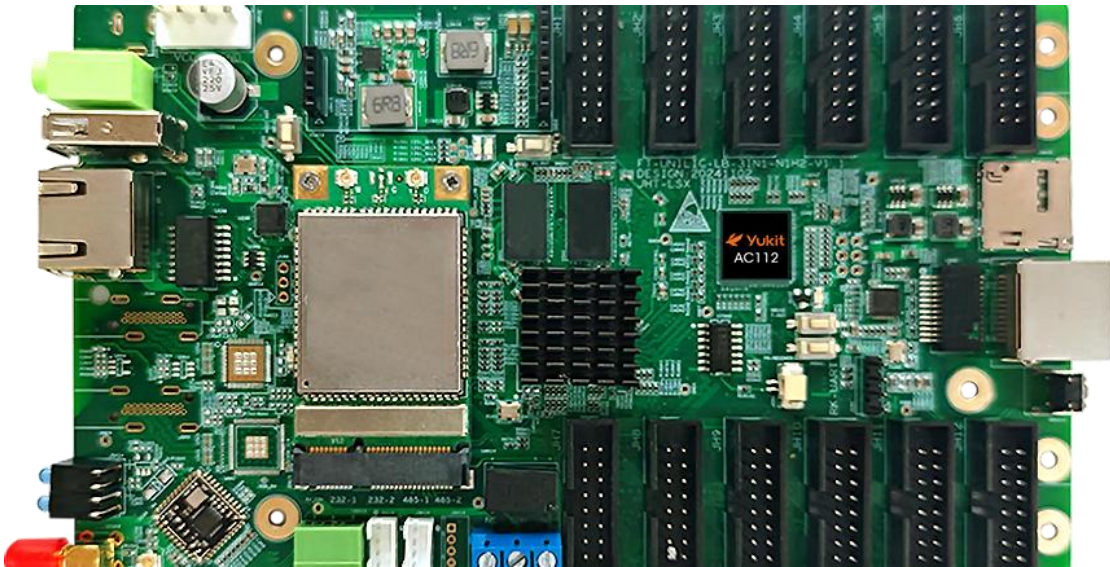


AC112 Cloud-based Media Player

Specification V1.1



Update Log

| Document Version | Update time | Update content |
|------------------|-------------|--|
| V1.1 | 2025/7/14 | 1.Product name and model changed; 2.Video decoding specifications updated |
| V1.0 | 2025/4/22 | New document published |

Foreword

Thank you very much for purchasing our product, please read this specification sheet carefully before use.

All product information in this specification is for reference only, please refer to the actual product.

This specification may not correspond exactly to the products or accessories you purchase. Our company reserves the right to modify any information in this specification at any time and will periodically improve or update its content based on product feature enhancements. Updated content will be added to new versions of this specification without prior notice. Thank you for your understanding.

Safety Precautions

To ensure personal and equipment safety, please follow the safety instructions on the equipment and in the manual when installing, operating, and maintaining the equipment to ensure optimal equipment performance and avoid dangerous or illegal situations.

1. Equipment Introduction

The AC112 Cloud-based Media Player is an LED display control card that integrates multimedia playback, video transmission and receiving. It can be used for program editing, publishing and display control through various user terminals such as PCs, phones, tablets and cloud.

The AC112 cloud-based media player can be widely used in LED commercial displays and smart display fields, such as fixed screens, light pole screens, chain store screens, retail store screens, shelvescreens, advertising machines, poster screens, storefront screens, vehicle screens, etc.

2. Features

1. Supports multiple outputs

- Loading capacity: Up to 910,000 pixels, maximum width or height: 1920 pixels.
- 1× LED Gigabit Ethernet port: Connects to LED receiving card for driving LED displays.
- 1× channel stereo audio output.
- 12× HUB75E outputs.

2. Supports multiple input methods

- 1× USB 2.0 port: Support a USB flash drive and playback of programs.
- 1× Sensor interface: For brightness, temperature, and humidity sensors.

3. Excellent processing performance Processing capacity

- CPU: Quad-core ARM Cortex-A35
- Decoding: H.264, H.265, MPEG4, VP8, VC-1 1080P@60Hz
- RAM: 1GB
- ROM: 32GB

Playback performance

- 1 Channel 1080P / 2 Channels 720P / 4 Channels 480P / 4 Channels 360P

4. Multi-screen synchronized playback

Time-sync options: NTP, GPS (with designated 4G module), or RF (with designated RF module), enabling frame-accurate, simultaneous playback across multiple displays.

5. A wide variety of control methods

- 1× USB (Type A) port. DEVICE mode, connects to the host computer to update programs and control the display screen; HOST mode, USB flash drive playback.
- 1× 100 Mbps Ethernet port allows for direct connection to a PC via Ethernet cable or connection to a local area network for program distribution and display control;
- With a built-in WiFi module, PCs, tablets, and mobile phones can log in to the device via wireless network to publish programs and control the display screen;
- Remote program publishing and display screen control based on the information messaging system cloud platform;
- Remote display screen status monitoring based on the information messaging system cloud platform.

6. WiFi dual-mode switching

Supports WIFI AP and WIFI STA modes:

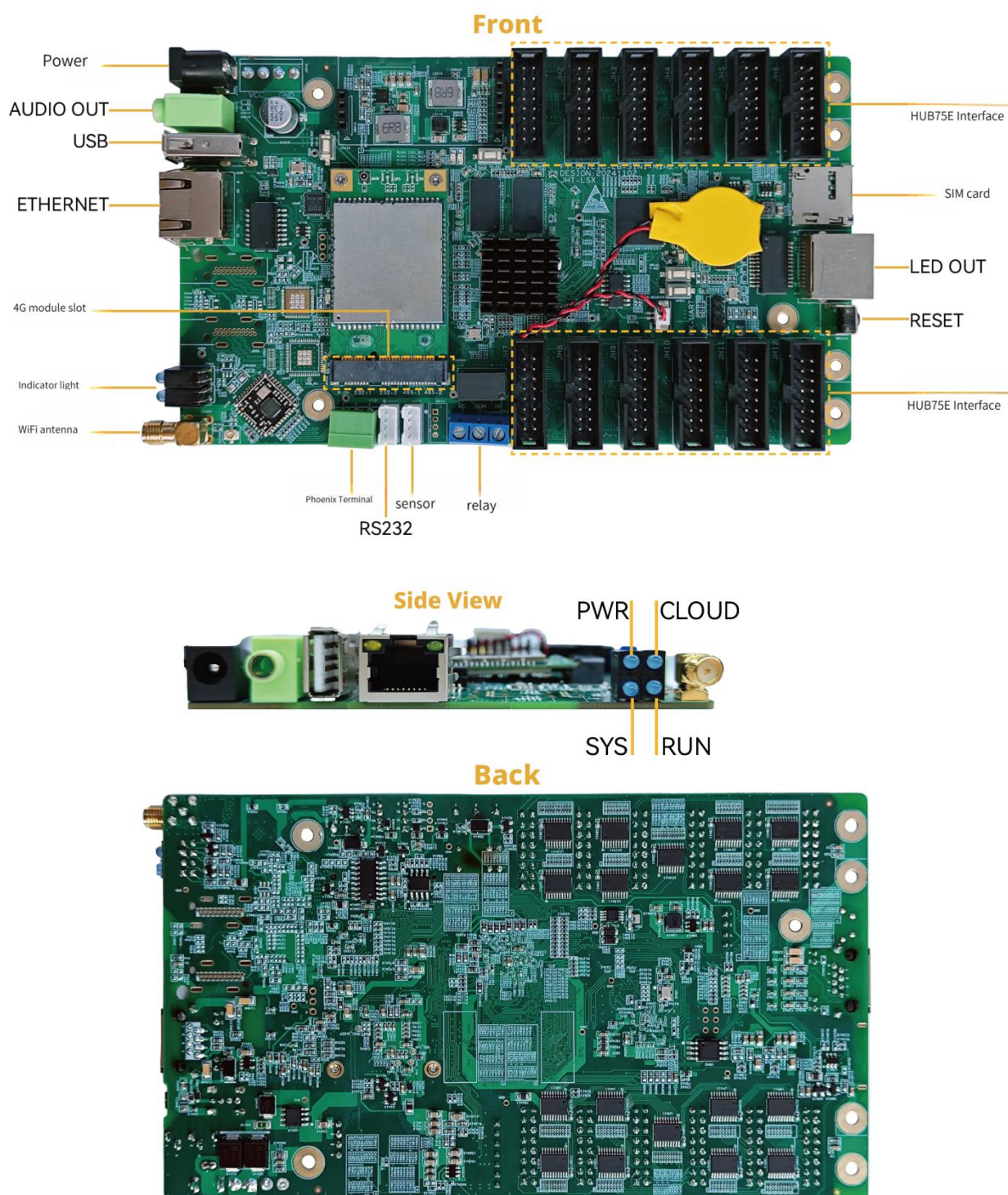
- AP for direct terminal connection;
- STA for connection via router.

7. 4G module installation

4G module (Optional) , once installed, provides Internet connectivity and follows the fixed network-priority order: Ethernet first, Wi-Fi second, 4G last.

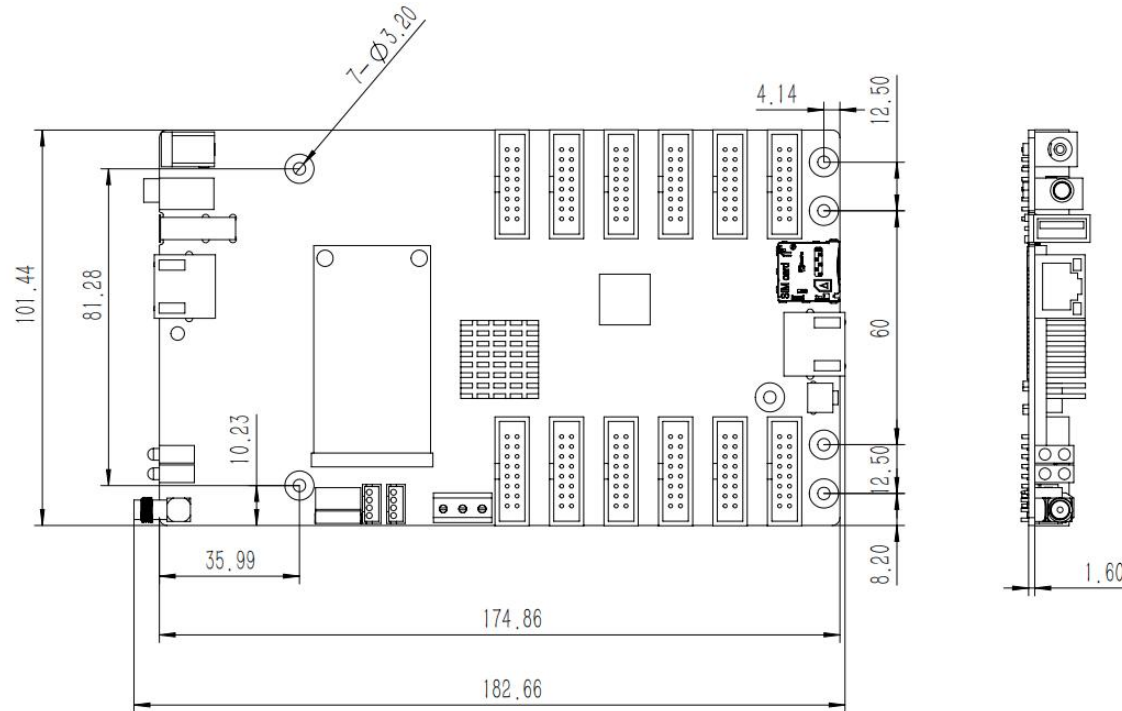
3. Equipment appearance

The following are schematic diagrams of the front and back panels of the device.
The actual product appearance shall prevail.

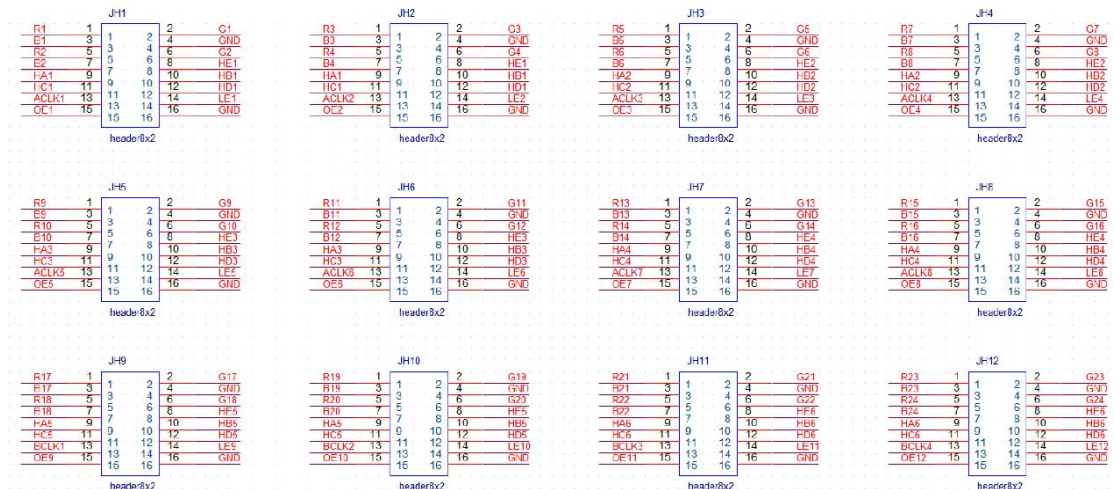


| Name | Description |
|------------------|--|
| POWER | DC 5V ~ 12V power supply. |
| AUDIO OUT | 3.5mm audio output interface. |
| USB | USB 2.0 (Type A) interface: <ul style="list-style-type: none"> • DEVICE mode: Connect to host computer for program publishing and display control; • HOST mode: Playback from USB drive. |
| ETHERNET | A 100Mbps Ethernet port: Connects to Ethernet (LAN/public network) or PC for program distribution and display control. |
| INDICATOR LIGHTS | PWR: Power indicator, stays on after device startup. SYS: System status indicator <ul style="list-style-type: none"> • Flashes once every 2s: OS runs normally, USB in DEVICE mode; • Flashes once every 0.5s: OS runs normally, USB in HOST mode; • Constant on/off: OS malfunctions. CLOUD: Cloud status indicator <ul style="list-style-type: none"> • Constant on: Internet connected but not cloud; • Flashes once every 2s: Cloud connection normal; • Flashes once every 1s: OS upgrading; • Flashes once every 0.5s: Upgrade package copying. RUN: Running status indicator <ul style="list-style-type: none"> • Flashes once every 1s: FPGA runs normally but no video source; • Flashes once every 0.5s: FPGA runs normally; • Constant on/off: FPGA loading error. |
| WIFI ANTENNA | WiFi antenna interface, supports AP and STA mode switching. |
| 4G MODULE SLOT | Connects to 4G module (not included by default; purchase separately if needed). |
| HUB75E | 1-2 output ports, connected to LED modules via flat cables. |
| SIM CARD | SIM card slot, supports reverse insertion prevention. |
| LED OUT | LED gigabit output port to receiving card. |
| RESET | Short press (1s): Switch between USB Device and Host modes; Long press (5s): Restore factory settings. |
| PHOENIX TERMINAL | Connects to central control and other equipment. |
| RS232 | Connects to RS232 devices (e.g., GPS devices). |
| SENSOR | Sensor interface, compatible with brightness, temperature, and humidity sensors. |
| RELAY | Relay control interface. |

4. Equipment size



5. Data interface diagram



| Data interface definition (taking JH1 as an example) | | | | | |
|--|-------|----|----|-----|----------------------|
| / | R1 | 1 | 2 | G1 | / |
| / | B1 | 3 | 4 | GND | Grounding |
| / | R2 | 5 | 6 | G2 | / |
| / | B2 | 7 | 8 | HE1 | Line decoding signal |
| Line Decoding Signal | HA1 | 9 | 10 | HB1 | Line decoding signal |
| Line Decoding Signal | HC1 | 11 | 12 | HD1 | Line decoding signal |
| Shift Clock | ACLK1 | 13 | 14 | LE1 | latch signal |
| Display Enable Signal | OE1 | 15 | 16 | GND | Grounding |

6. Equipment Specifications

| Specification | Description | | |
|-----------------------|---|---|-----------------------------------|
| Electrical | Input power | DC 5V~12V 2A | |
| | Maximum power consumption | 18W | |
| Storage space | RAM | 1GB | |
| | Internal storage | 32GB | |
| Work environment | temperature | -20°C ~ 60°C | |
| | humidity | 0% RH ~ 80% RH,non-condensing | |
| Storage environment | temperature | -40°C ~ 80°C | |
| | humidity | 0% RH ~ 80% RH,non-condensing | |
| Physical | Size (L×W×H) | 182.66x101.44 mm | |
| | net weight | 152g | |
| Packaging information | Accessories | 1× WiFi Omnidirectional Antenna 1× USB-A male-to-male data cable 1× DC12V power adapter | 1× Quick Guide 1× Packing List |
| Protection level | IP20, please take precautions against water damage, such as preventing water droplets from entering the product, and avoiding wetting or rinsing the product. | | |
| System software | Android 11 operating system software Android terminal application software FPGA Firmware Program Note: Installation of third-party applications is not supported. | | |

7. Multimedia decoding specifications

7.1. Image

| Encoder/Decoder | Maximum Size | Format | Remark |
|-----------------------|-------------------|---------------|---|
| JFIF file format 1.02 | 4096× 2160 pixels | .jpg .jpeg | Non-interlaced scanning is not supported Supports SRGB JPEG Supports Adobe RGB JPEG |
| BMP | 4096× 2160 pixels | .bmp | |
| PNG | 4096× 2160 pixels | .png | |
| WEBP | 4096× 2160 pixels | .webp | |

7.2. Video

| Codec | Resolution Range | Max fps | Max bit-rate | Format | Remark |
|------------|--|-------------|--------------|--------------------------------------|----------------------------------|
| MPEG-1/2 | 48× 48 - 1920× 1080 | 30fps | 80Mbps | .dat .mpg .vob .ts | Support Field Coding |
| MPEG4 | 48× 48 - 1920× 1080 | 30fps | 38.4Mbps | .avi .mkv .mp4 .mov .3gp | v1/v2/v3 & GMC not supported |
| H.264 | 48× 48 - 1920× 1080 | 1080p@60fps | 80Mbps | .avi .mkv .mp4 .mov .3gp .ts .flv | Support Field Coding & MBAFF |
| H.264 MVC | 48× 48 - 1920× 1080 | 1080p@60fps | 100Mbps | .mkv .ts | Support Stereo High Profile only |
| H.265/HEVC | 64× 64 - 1920× 1080 | 1080p@60fps | 100Mbps | .mkv .mp4 .mov .ts | Support Main Profile, Tile&Slice |
| VP8 | 48× 48 - 1920× 1080 | 30fps | 38.4Mbps | .webm .mkv | / |
| H.263 | SQCIF(128× 96) QCIF(176× 144) CIF (352× 288) 4CIF(704× 576) | 30fps | 38.4Mbps | .3gp .mov .mp4 | H.263+ not supported |
| MJPEG | 48× 48 - 1920× 1080 | 60fps | 60Mbps | .avi | / |

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