

Manuals.plus /

› AzarPixel /

› AzarPixel Huidu HD-C08L Asynchronous LED Controller Card Instruction Manual

AzarPixel HD-C08L

AzarPixel Huidu HD-C08L Asynchronous LED Controller Card Instruction Manual

Model: HD-C08L

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the AzarPixel Huidu HD-C08L Asynchronous LED Controller Card. This device is designed for managing LED display screens, video walls, and programmable LED signs, offering robust performance for various digital signage applications.

Please read this manual thoroughly before using the product to ensure proper functionality and to prevent damage.

2. PRODUCT OVERVIEW

2.1 Key Features

- **High-Performance LED Control:** Supports up to 196,000 pixels with smooth 60Hz output, powered by a quad-core CPU and Mali-G31 GPU for stable playback.
- **Standalone Digital Signage Player:** Operates independently without a computer, featuring built-in Wi-Fi and USB ports for easy content updates and storage expansion.
- **Multiple Interfaces and Connectivity:** Equipped with 8 HUB75E outputs, Ethernet port for program transfer, and TRS 3.5mm audio output.
- **Dual 1080p Multimedia Playback:** Functions as a digital media player, supporting two 1080p video windows simultaneously with 4GB storage (expandable).
- **Reliable and Energy-Efficient Design:** Operates in extreme temperatures (-40°C to +80°C) with low power consumption (8W) and includes an onboard relay for remote display power switching.

2.2 Components

The HD-C08L controller card includes various ports and components for connectivity and operation.

Familiarize yourself with the layout:

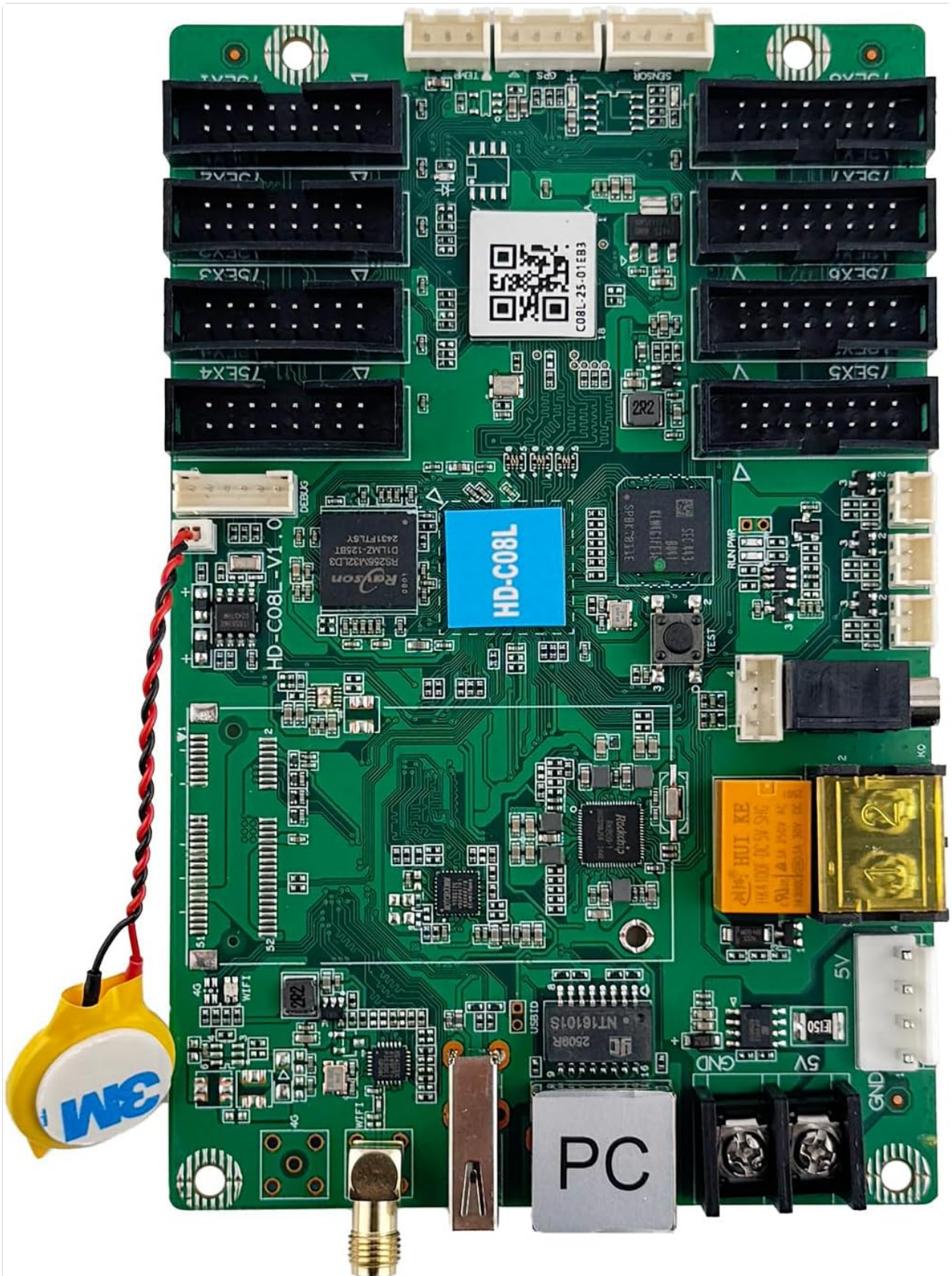


Figure 1: Top view of the Huidu HD-C08L LED controller card, showing the main chip labeled "HD-C08L", multiple HUB75E output ports, a PC Ethernet port, USB ports, and a battery for real-time clock. The QR code on the board indicates identifier C08L-25-01EB3.

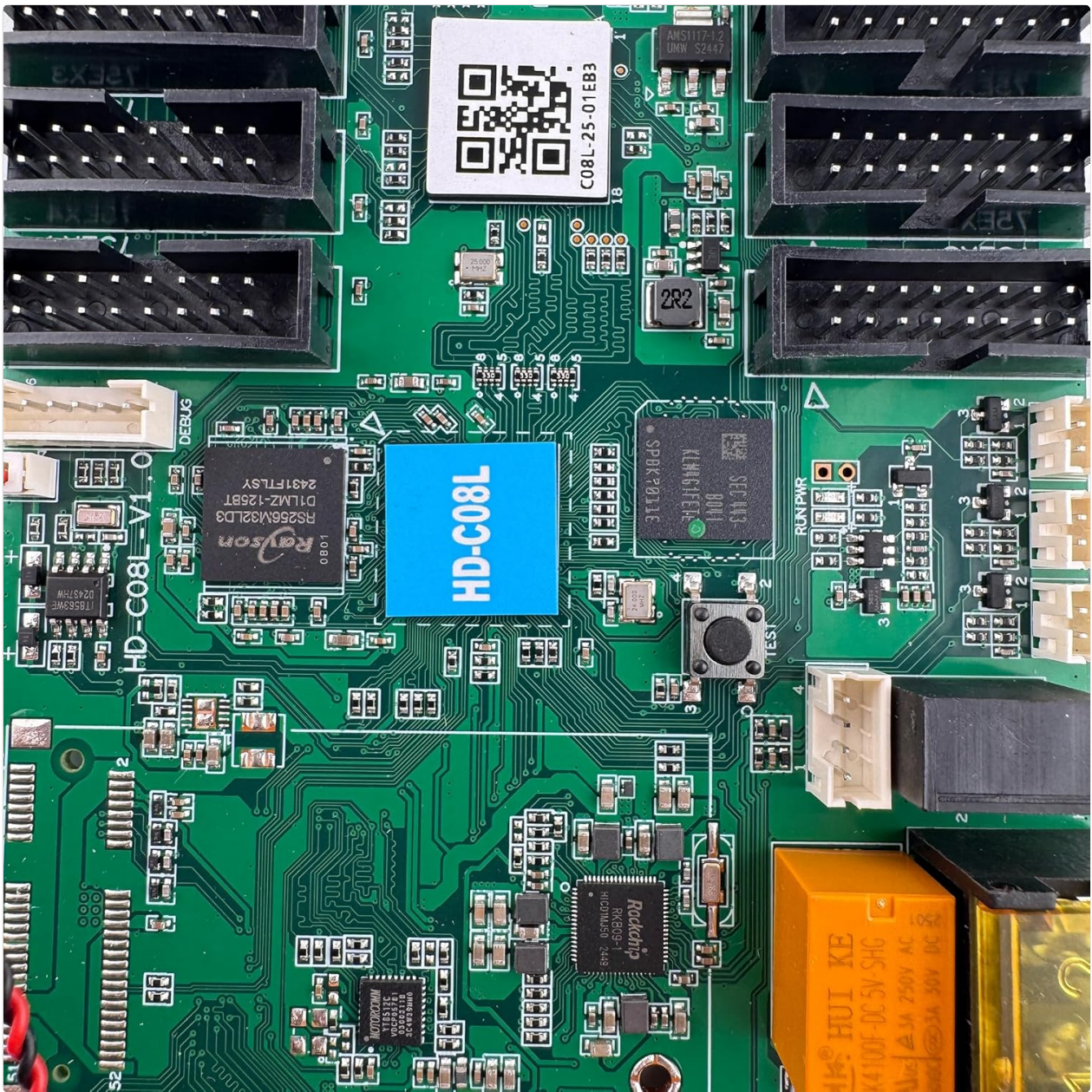


Figure 2: Close-up view of the Huidu HD-C08L LED controller card's central processing unit and surrounding components, including the "HD-C08L" chip and various connectors. The QR code on the board indicates identifier C08L-25-01EB3.

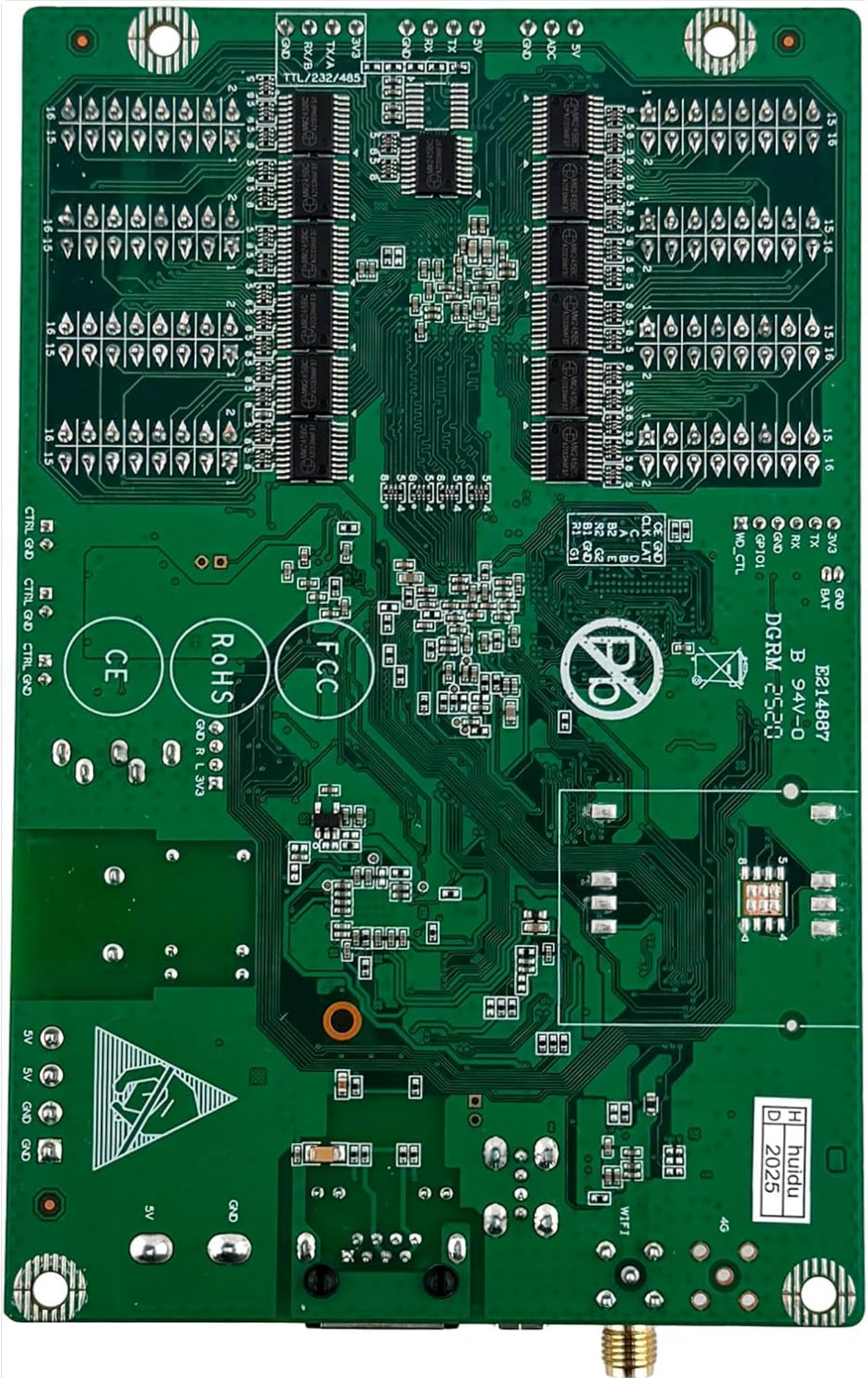


Figure 3: Bottom view of the Huidu HD-C08L LED controller card, displaying various circuit traces, regulatory marks (CE,

RoHS, FCC), and mounting holes.

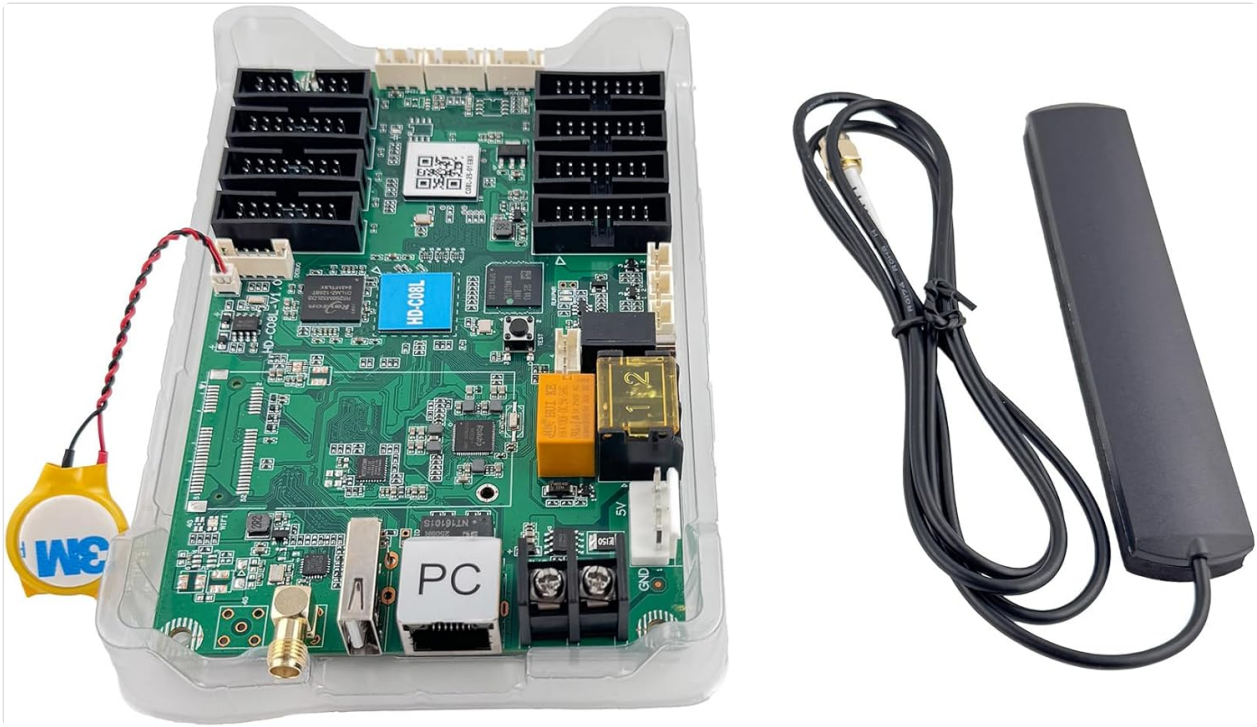


Figure 4: The Huidu HD-C08L LED controller card shown with its external antenna and housed within a clear protective casing, illustrating the complete package. The QR code on the board indicates identifier C08L-25-01EB3.

3. SETUP

3.1 Power Connection

- Connect a 5V DC power supply to the designated power input terminals on the controller card. Ensure correct polarity.
- The power consumption is approximately 8W.

3.2 LED Display Connection

- Connect the LED display panels to the 8 HUB75E output ports on the HD-C08L. Refer to your LED module's documentation for correct wiring.
- Ensure all connections are secure to prevent signal loss.

3.3 Network and Peripheral Connections

- **Ethernet:** For program transfer and network connectivity, connect an Ethernet cable to the "PC" port.
- **Wi-Fi:** The controller has built-in Wi-Fi for wireless content uploads and remote management. Attach the provided antenna to the SMA connector for optimal signal.
- **USB:** Use the USB ports for content updates, storage expansion, or connecting other peripherals.
- **Audio:** Connect external audio devices to the TRS 3.5mm audio output for synchronized sound.

3.4 Software Installation

- For PC-based management, download and install the HDPlayer software from the official Huidu website.
- For mobile device management, download the LedArt mobile app from your device's app store.
- For cloud-based remote cluster management, register and utilize the XiaoHui Cloud platform.

4. OPERATING INSTRUCTIONS

4.1 Content Upload and Management

- **Via USB:** Save your multimedia content (MP4, AVI, PNG, GIF, etc.) to a USB drive. Insert the USB drive into the controller's USB port. The controller will automatically detect and transfer the content.
- **Via Wi-Fi/Ethernet (HDPlayer/LedArt):** Connect your PC or mobile device to the controller's network (either directly via Wi-Fi or through a local network). Use the HDPlayer software or LedArt app to create, edit, and upload programs to the controller.
- **Via Cloud (XiaoHui Cloud):** For remote management of multiple devices, connect the controller to the internet and link it to your XiaoHui Cloud account. Upload and schedule content from anywhere.

4.2 Program Scheduling and Playback

- Use the HDPlayer software or LedArt app to set up playback schedules for your content. This includes specifying play times, durations, and sequences.
- The HD-C08L supports dual 1080p video windows, allowing for complex multimedia presentations.
- The controller will automatically play scheduled content.

4.3 Remote Power Control

The onboard relay allows for remote switching of the connected LED display's power. This feature can be configured and controlled through the management software.

5. MAINTENANCE

- **Environmental Conditions:** The HD-C08L is designed for robust operation in temperatures from -40°C to +80°C. Ensure it is installed in an environment within this range and protected from excessive moisture or direct sunlight.
- **Cleaning:** Keep the controller card free from dust and debris. Use a soft, dry cloth for cleaning. Do not use liquid cleaners.
- **Firmware Updates:** Periodically check the Huidu official website for firmware updates to ensure optimal performance and access to new features. Follow the provided instructions carefully for any updates.
- **Sensor Interfaces:** If external sensors are connected for environmental monitoring, ensure they are clean and properly calibrated according to their respective manuals.

6. TROUBLESHOOTING

- **No Display/Blank Screen:**
 - Check power supply to the controller and LED display.
 - Verify all HUB75E connections between the controller and LED modules.
 - Ensure the correct program is loaded and scheduled for playback.
 - Confirm the LED display parameters are correctly configured in the software.
- **Content Not Updating:**
 - Check network connectivity (Wi-Fi or Ethernet).
 - Ensure the USB drive is properly inserted and recognized.
 - Verify that the content format is supported (MP4, AVI, PNG, GIF, etc.).

- Check available storage space on the controller.
- **Intermittent Display Issues:**
 - Inspect all cables for damage or loose connections.
 - Ensure the power supply is stable and sufficient.
 - Check for environmental factors like extreme temperatures or electromagnetic interference.
- **Software Connection Problems:**
 - Ensure the controller and your PC/mobile device are on the same network or directly connected.
 - Disable any firewalls or antivirus software that might block the connection temporarily.
 - Restart both the controller and the management software.

7. SPECIFICATIONS

Feature	Detail
Model Name	Huidu HD-C08L
Pixel Support	Up to 196,000 pixels
Output Frequency	60Hz
CPU	Quad-core
GPU	Mali-G31
Storage	4GB (expandable via USB)
Video Playback	Dual 1080p windows simultaneously
Connectivity	Wi-Fi, Ethernet, USB
Outputs	8 x HUB75E
Audio Output	TRS 3.5mm
Power Consumption	8W
Operating Temperature	-40°C to +80°C
Product Dimensions	5.59"L x 3.59"W x 0.78"H (14.2 x 9.1 x 2.0 cm)
Item Weight	4 ounces (113 grams)
UPC	850056190930

8. WARRANTY AND SUPPORT

For warranty information and technical support, please contact AzarPixel customer service. Details can typically be found on the product packaging or the official AzarPixel website.

When contacting support, please have your product model (HD-C08L) and any relevant purchase information ready.

AzarPixel Support: Visit the AzarPixel Store on Amazon

