

# MP1

Commercial Led Display Controller Series

Specification V4.0



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## 1 Update Records

| Document Version | Hardware Version | Release Time      | Update Record |
|------------------|------------------|-------------------|---------------|
| V4.0             | MP1 (V1.0)       | July 30(th), 2025 | First release |

## 2 Product Introduction

MP1 Media Player features high performance 4 Core CPU + 4 Core GPU Chip Set and it's a combination of the Player with the Sending Card(Integration). Given that the Player has a very high performance of the video processing.

It could be widely used at business display area(fields) such as : Fixed Installation LED Display, Intelligent Lamppost Led Display, Over-door Led Display,Vehicle-Mounted Led Display, Chain Stores Cluster Display Management, Led Electronic Whiteboard, Led Mirror(Mirror-like Led Display),Advertise Led Display, and the Led Display that does not need to be used with the PC(Offline Mode).

## 3 Product Characteristics

- 1 Gigabit Ethernet port output, supporting 650,000 pixels per port with maximum width 1920 and maximum height 1080
- Supports Wi-Fi connectivity and can function as a Wi-Fi hotspot (either mode selectable)
- Supports 4G module (optional 4G)
- Supports comprehensive program distribution and display control via mobile/iPad, LAN, and PC
- Supports cluster-based remote program release and display control
- Cluster-based remote monitoring of display panel status
- Supports Ethernet debugging for all Mooncell receiving card series
- Low power consumption, minimal heat generation, stable and reliable performance across wide temperature range
- Compact size for easy installation and maintenance

## 4 Product Features

### 4.1 Features

- It supports HD videos, Pictures (Images), TXT, Weather Info, Clock and a variety of programs.
- It supports to have the multiple windows, the size & position of the windows could be set as you wish and the window overlay is supported.
- LAN, WIFI, 4G, etc. are supported.
- Applications for Android and IOS are available.
- PC, Mobile Phones and Pad are supported to be used to control and manage with the programs and its parameters.
- The RS485 Sensor Interface could be supported to monitor the temperature, humidity, lightness and some other environmental situations (parameters).
- The brightness of the led display could be automatically adjusted.
- Using the Network Time Protocol (NTP) to synchronize the Time ( To get the accurate Time).
- It supports to have multiple displays to work simultaneously (synchronized).
- It supports Monitor HDMI output so that it could be used as the Monitor output, or it could be also used for LED+LCD combined Networks.
- It supports to use the USB Flash disk to update the programs, plug and play, you can also use the Ethernet to update and manage with the programs.
- It supports to automatically adjust the brightness or set the schedule to have the brightness automatically adjusted.
- It supports to play the programs as in “player list” orders.
- Through the Management System, you can have a cluster of settings for its On/Off at a certain time. (Timer).

## 4.2 Audio & Video Performance:

|                    |                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programs Partition | Supports freely adjusting window size and position, supports window overlay                                                                                                                                                                                       |
| Video Format       | MPG,MOV,MP4,FLV,MKV etc.                                                                                                                                                                                                                                          |
| Audio Format       | MPEG-1 Layer III, AAC,etc.                                                                                                                                                                                                                                        |
| Image Format       | JPG、PNG,etc.                                                                                                                                                                                                                                                      |
| TXT Display        | Single-Line TXT,Static TXT,Multi-Line TXT                                                                                                                                                                                                                         |
| Image Partition    | It supports Video,Image,Scrolling Caption,LOGO,Data and Time; the images could be partitioned as you wish.                                                                                                                                                        |
| OSD Supported      | It supports 32bit True Color OSD,it could be displayed at any position, it supports the video ,image and TXT to be played together at the same time, the image or TXT could be superposed on the videos, it supports transparent,semi-transparent,opaque effects. |
| RTC                | Real Time Clock Display and Management                                                                                                                                                                                                                            |

## 4.3 Terminal Management:

|                                     |                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Network Communication               | LAN/WiFi/4G Network Access                                                                                                               |
| Programs Update                     | USB Drive Content Plug-and-Play; Management Terminal Network Transmission                                                                |
| Device Management                   | PC, Android, iOS, and Other Smart Terminal Devices                                                                                       |
| Wireless Control                    | Real-time Brightness Adjustment, Display Switch, System Parameter Configuration, Program Playback Control, Wireless Program Transmission |
| Brightness Automatically Adjustment | Supports automatic screen brightness adjustment based on time or ambient light levels                                                    |
| Timing Playing                      | Supports playback according to scheduled programs                                                                                        |
| Management Software                 | APP Supports various Android and iOS devices                                                                                             |

## 5 Product Appearance

Front Panel



\* Product photos are for reference only, please refer to the products actually purchased.

## 5.1 Data Interface Description

| Name      | Illustration                                                                                    |
|-----------|-------------------------------------------------------------------------------------------------|
| DC 5V     | Input Power Connector: 5.5*2.5MM                                                                |
| AUDIO     | 1/8" (3.5mm) TRS Plug Audio Output                                                              |
| LAN       | 100Mbps Ethernet Network Access                                                                 |
| USB       | USB 2.0 x 2, for external USB flash drives or other devices                                     |
| WiFi      | WiFi Antenna Connector                                                                          |
| 4G        | 4G Antenna Connector (Includes 4G antenna connector when opting for 4G module)                  |
| Reset     | Restore Factory Settings                                                                        |
| Indicator | Illustration                                                                                    |
| 4G        | Constant On: 4G module functioning normally<br>Off: 4G module malfunctioning                    |
| PWR       | Power Indicator: Remains on when powered                                                        |
| WIFI      | Constant On: Wi-Fi hotspot functioning normally<br>Off: Wi-Fi hotspot malfunctioning            |
| SYS       | Flashing: Operating system running normally<br>Constant On/Off: Operating system malfunctioning |

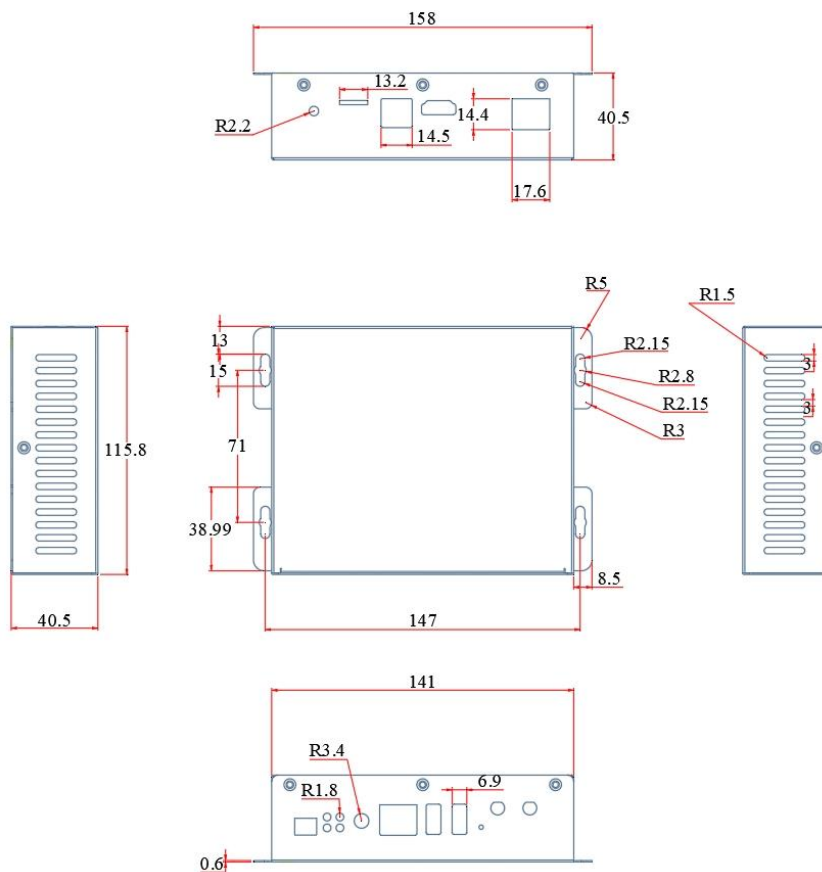
## Rear Panel



\* Product photos are for reference only, please refer to the products actually purchased.

| Name   | Illustration                                             |
|--------|----------------------------------------------------------|
| Port1  | 1 Gigabit Ethernet port outputs signal to receiving card |
| HDMI   | HDMI output                                              |
| SENSOR | Optical sensor probe interface                           |
| SIM    | Micro SIM card slot for 4G mobile SIM card               |

## 5.2 Dimensions(Size: mm)



Tolerance:  $\pm 0.3$  Unit: mm

## 6 Product Parameters

### 6.1 Performance Parameters

|                           |                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance Parameters    | Processor: Quad-core CPU + GPU<br>Memory: 1GB DDR3 high-speed RAM<br>Flash Storage: 8GB EMMC high-speed storage<br>Resolution: Supports 1080p HD hardware decoding playback |
| Network Access Method     | 100 Megabit, LAN、WiFi AP、4G Module (Optional)                                                                                                                               |
| Processing Capacity       | Supports 650,000 pixels<br>Maximum width: 1920 pixels, maximum height: 1080 pixels                                                                                          |
| Supported Receiving Cards | Mooncell Receiving Cards                                                                                                                                                    |

### 6.2 Specification

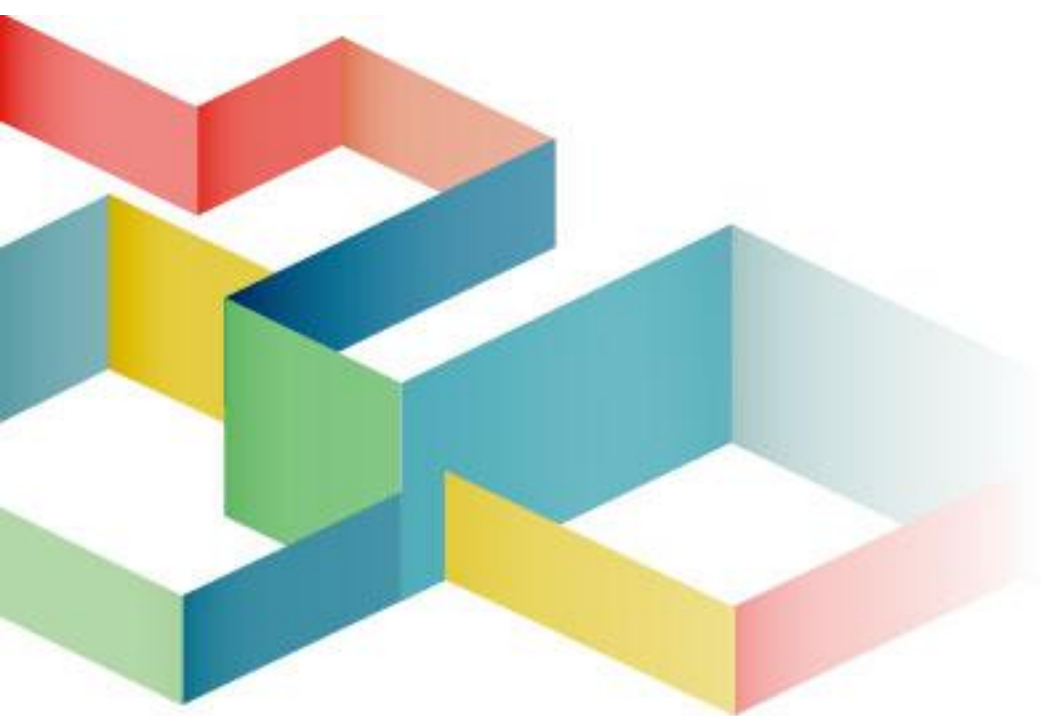
|                       |                       |                                                                                                                                         |
|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Electrical Parameters | Rated Voltage         | 5V                                                                                                                                      |
|                       | Rated Power           | 8W                                                                                                                                      |
| Operating Environment | Operating Temperature | -20°C~60°C                                                                                                                              |
|                       | Operating Humidity    | 0%RH~80%RH, No condensation                                                                                                             |
| Storage Environment   | Storage Temperature   | -40°C~80°C                                                                                                                              |
| Dimensions            | 158mm×115.8mm×40.5mm  |                                                                                                                                         |
| Net Weight            | 0.38Kg                |                                                                                                                                         |
| Packing Information   | List                  | 1× Ethernet cable, 1× Wi-Fi antenna, 1× 5V power adapter (5.5mm × 2.5mm standard connector), 1× USB cable, 1× Certificate of Conformity |
|                       | Option List           | 4G Module (includes 4G module, antenna, and antenna mount)                                                                              |
|                       | Dimension             | 305mmX245mmX85mm                                                                                                                        |
|                       | Packaging             | Single unit, outer packaging varies in size depending on quantity.                                                                      |
|                       | Gross Weight          | 0.68Kg                                                                                                                                  |



\* Current and power consumption may vary according to different factors such as product usage, environment and settings.

## **7 Precautions**

- The installation process must be completed by professionals.
- Must be antistatic.
- Please pay attention to waterproof and dust removal.



National after-sales service hotline: 400-881-3531

Official website: [www.mooncell.com.cn](http://www.mooncell.com.cn).

Address: Mooncell Building, No.3 Industrial Zone, Baoshi South Road,  
Shiyan Street, Baoan District, Shenzhen

