

# MP401

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             | MP401 (V1.0)     | July 31(th), 2025 | First release |

## 2 Product Introduction

The MP401 is a networked media player with 4K HDMI output launched by Mooncell. It supports remote cluster control via the internet, multi-window playback, and a wide range of media content including videos, images, text, documents, clocks, streaming media, web pages, weather updates, timers, and promotional windows.

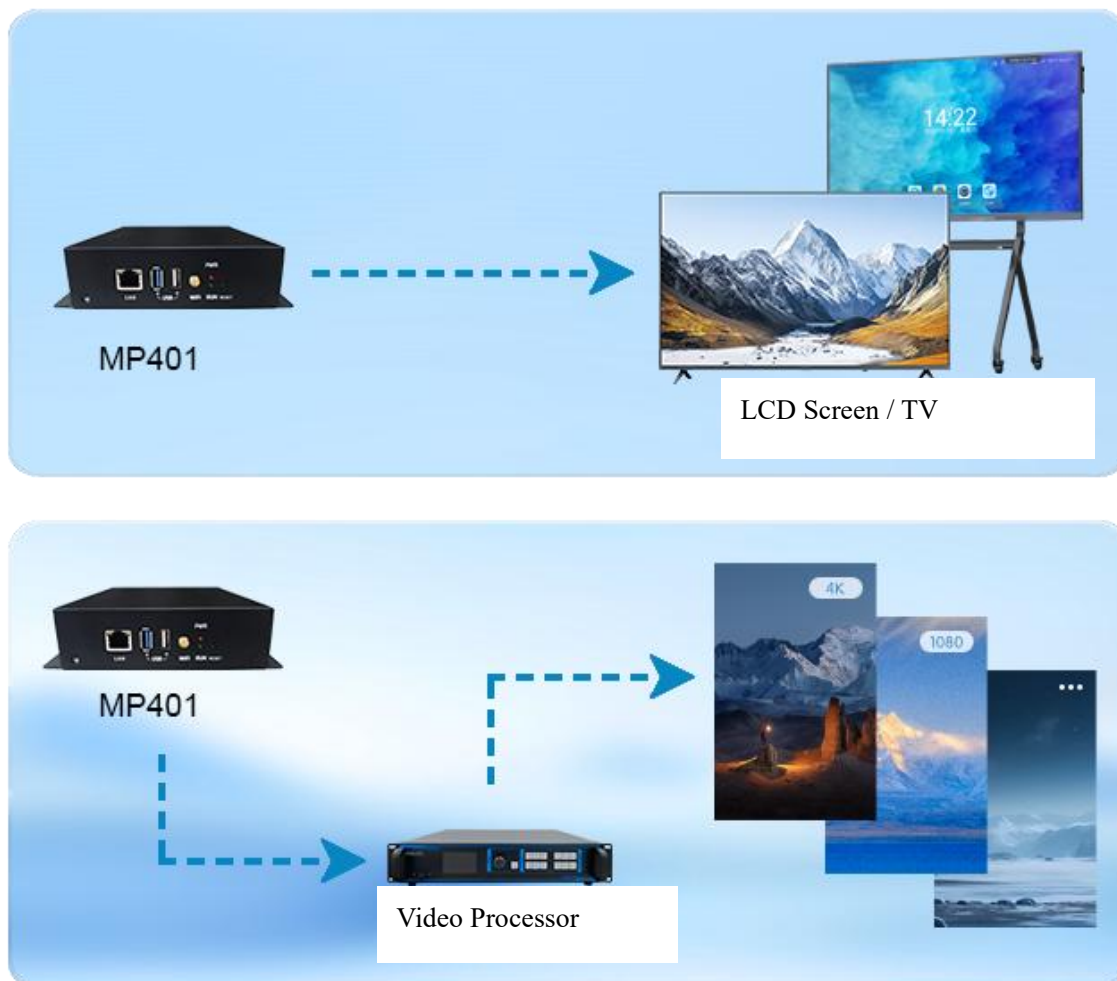
Compact in size and low in power consumption, the MP401 operates across a wide temperature range and offers easy installation and maintenance.

## 3 Product Characteristics

- HDMI 2.0 display interface
- Supports H.265 hardware decoding, capable of decoding 4K@60Hz video sources
- Supports multi-window playback with customizable window size and position; supports window overlay; video windows support up to 4K×2 or 1080P×6 or 720P×10 or 360P×20
- Supports program management and parameter settings via computers, phones, tablets, cloud platforms, and other devices
- Supports USB plug-and-play
- Supports multi-screen synchronized playback
- Extensive media content: videos, images, text, documents, clocks, streaming media, web pages, weather, timers etc.
- Supports remote cluster control via internet, LAN, and Wi-Fi connections
- Compatible with Android 11 system
- Low power consumption, stable and reliable performance across wide temperature ranges
- Compact size for easy installation and maintenance

## 4 Application Scenarios

It can be widely applied in commercial display fields such as various advertising media, digital signage, exhibition halls, and showrooms, offering significant advantages.



## 5 Product Features

### 5.1 Features

- Supports one 100Mbps Ethernet input port for debugging and program transmission.
- Supports one USB 2.0 port and one USB 3.0 port for inserting programs and expanding storage capacity.
- 1 HDMI 2.0 output port supporting 4K display, with a maximum width of 3840 pixels or a maximum height of 2160 pixels, for connecting to monitors or LED video processors.

## 5.2 Audio & Video Performance:

|                    |                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programs Partition | Supports freely adjusting window size and position, with window overlay capability.<br>Video windows (supports up to 4K×2 or 1080P×6 or 720P×10 or 360P×20)                                                    |
| Media Content      | Supports video, images, text, documents, clock, streaming media, web pages, weather, timers, discount windows, and more.                                                                                       |
| Video Format       | MPG,MOV,MP4,FLV,MKV etc.                                                                                                                                                                                       |
| Audio Format       | MPEG-1 Layer III, AAC,etc.                                                                                                                                                                                     |
| Image Format       | JPG、PNG 、GIF,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      | Supports true color OSD, displayable at any position, supports video/graphic hybrid mode, enabling text and graphics overlay on video, with full transparency, opaque, and semi-transparent effects supported. |
| RTC                | Real Time Clock Display and Management                                                                                                                                                                         |

## 5.3 Terminal Management:

|                                     |                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Network Communication               | LAN/WiFi/Network Access                                                                                                                  |
| Programs Update                     | USB Flash 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/Power On/Off         | Supports playback according to scheduled programs, Settings can be configured centrally through the management system.                   |
| Management Software                 | APP Supports various Android and iOS devices                                                                                             |

## 6 Product Appearance

### Front Panel



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

### 6.1 Data Interface Description

| Name      | Illustration                                                                                                             |
|-----------|--------------------------------------------------------------------------------------------------------------------------|
| LAN       | 100Mbps input network port for program release or terminal control                                                       |
| USB       | USB 3.0 × 1, USB 2.0 × 1; Supports Android-compatible mouse, keyboards, and USB drives for program playback and updates. |
| WiFi      | Connect the Wi-Fi antenna to enhance wireless signal strength.                                                           |
| Reset     | Restore Factory Settings                                                                                                 |
| Indicator | Illustration                                                                                                             |
| PWR       | Power Indicator: Power indicator light: steady green light indicates normal power input.                                 |
| Run       | Flashing: Operating system running normally<br>Constant On/Off: Operating system malfunctioning                          |

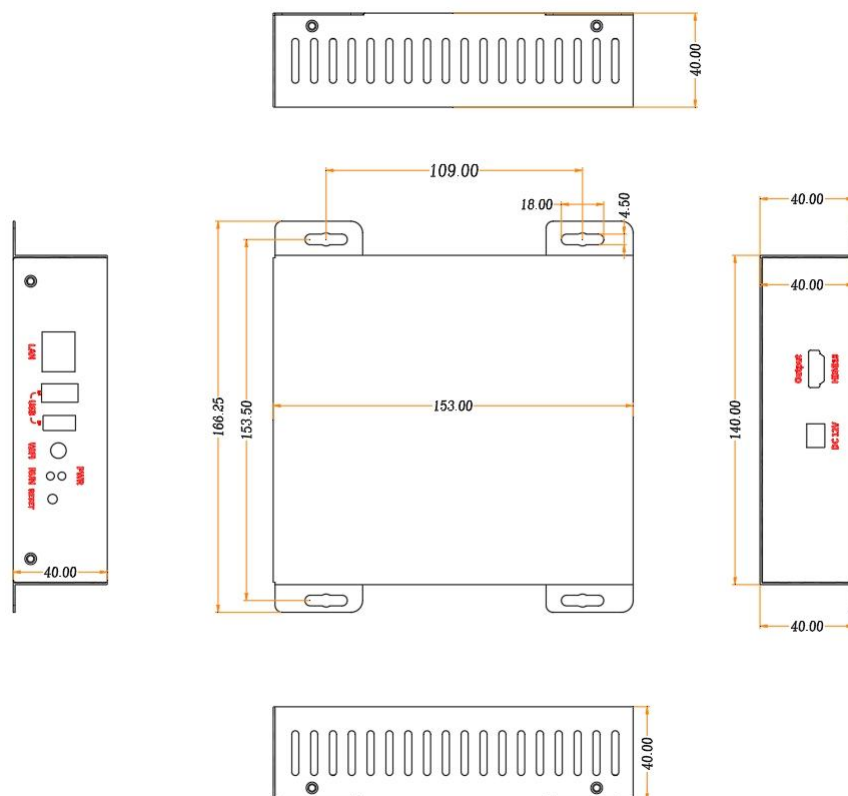
## Rear Panel



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

| Name     | Illustration                                                            |
|----------|-------------------------------------------------------------------------|
| DC12V    | Input power connector, 5.5 x 2.1 mm                                     |
| HDMI 2.0 | HDMI 2.0 output connector, connects to a monitor or LED video processor |

## 6.2 Dimensions(Size: mm)



Tolerance:  $\pm 0.3$  Unit: mm

## 7 Product Parameters

### 7.1 Performance Parameters

|                        |                                                                                                            |
|------------------------|------------------------------------------------------------------------------------------------------------|
| Performance Parameters | Processor: Quad-core CPU<br>Memory: 4GB DDR3 high-speed RAM<br>Flash Storage: 64GB EMMC high-speed storage |
| Network Access Method  | 100 Megabit, LAN                                                                                           |
| Decoding Capability    | 1080p60 H.265, H.264 encoding<br>4K H.264/H.265/VP9 60fps video decoder                                    |

### 6.2 Specification

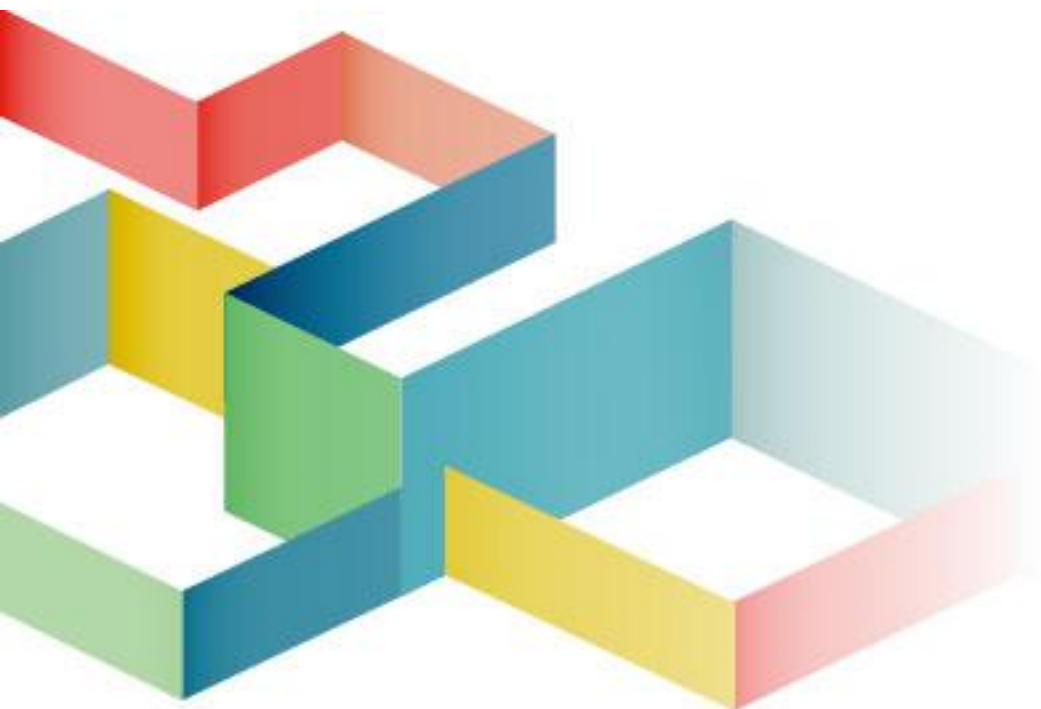
|                       |                       |                                                                                                                                           |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical Parameters | Rated Voltage         | 12V                                                                                                                                       |
|                       | Rated Power           | 15W                                                                                                                                       |
| 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            | 153mm×166.25mm×40mm   |                                                                                                                                           |
| Net Weight            | 0.524Kg               |                                                                                                                                           |
| Packing Information   | List                  | 1× Ethernet cable, 1× Wi-Fi antenna, 1× HDMI cable, 12V/2A power adapter (5.5mm × 2.1mm standard connector), 1× Certificate of Conformity |
|                       | Dimension             | 305mmX245mmX85mm                                                                                                                          |
|                       | Packaging             | Single unit, outer packaging varies in size depending on quantity.                                                                        |
|                       | Gross Weight          | 1.02Kg                                                                                                                                    |

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



## 8 Precautions

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



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