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Mooncell

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.

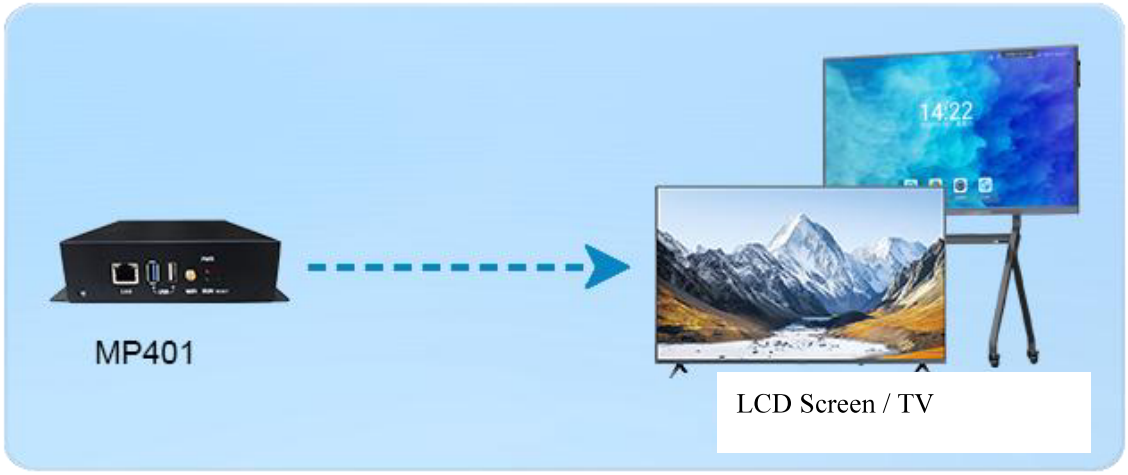
Compact in size and low in power consumption, the MP401 operates across a wide temperature range and offers easy installation and maintenance.

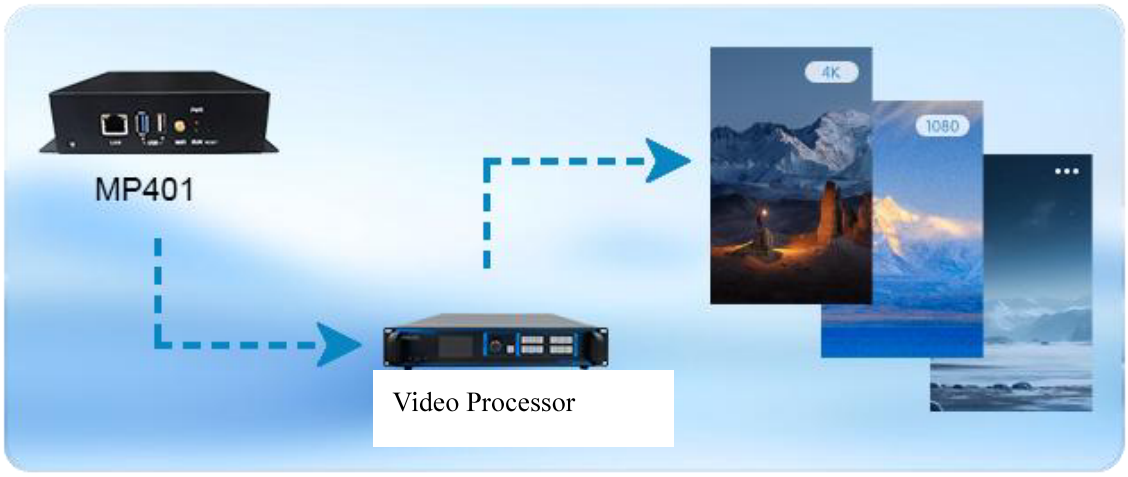
3 Product Characteristics

- 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.

5.2Audio & Video Performance:

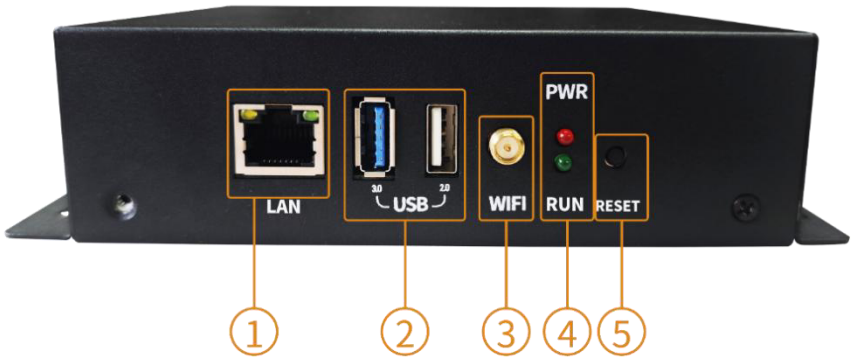
Programs Partition	Supports freely adjusting window size and position, with window overlay capability. Video windows (supports up to 4K×2 or 1080P×6 or 720P×10 or 360P×20)
Media Content	Supports video, images, text, documents, clock, streaming media, web pages, weather, timers, discount windows, and 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

5.3Terminal 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 Constant On/Off: Operating system malfunctioning

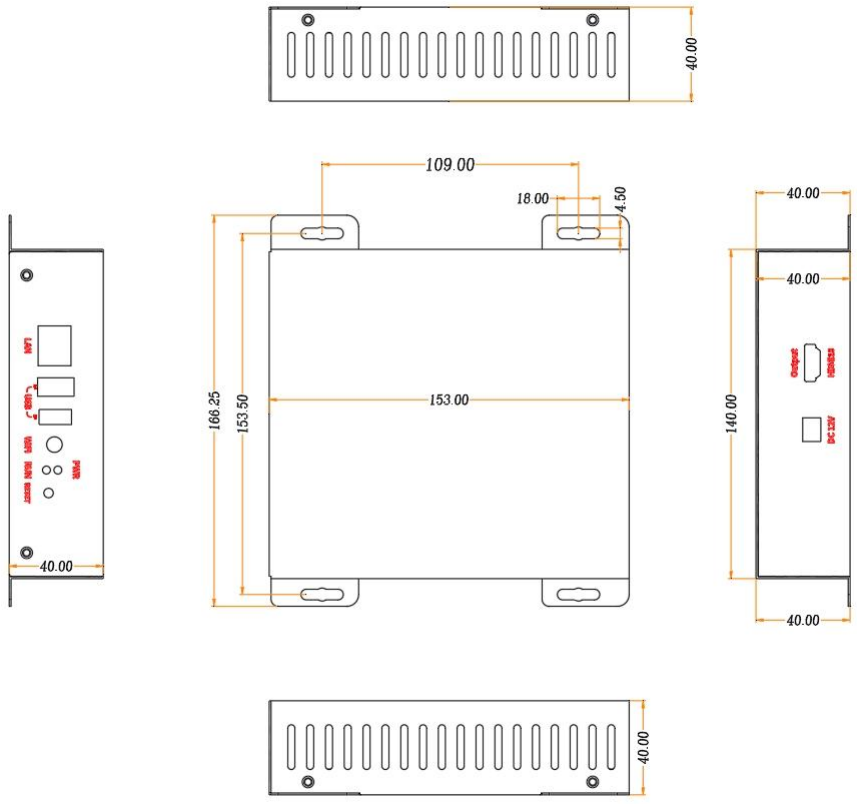
Rear Panel



* 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：±0.3　　Unit：mm

7 Product Parameters

7.1Performance Parameters

Performance Parameters	Processor: Quad-core CPU Memory: 4GB DDR3 high-speed RAM Flash Storage: 64GB EMMC high-speed storage
Network Access Method	100 Megabit, LAN
Decoding Capability	1080p60 H.265, H.264 encoding 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℃~60℃
	Operating Humidity	0%RH~80%RH，No condensation
Storage Environment	Storage Temperature	-40℃~80℃
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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