

MB6

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	MB6 (V2.0)	July 31(th), 2025	First release

2 Product Introduction

MB6 Media Player features 8-core high-performance CPU 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.

The MB6 features a compact size, low power consumption, and wide temperature range compatibility, with convenient installation and maintenance. It supports 4 network port outputs, with a maximum load capacity of 2.3 million pixels, a maximum width of 3840 pixels, and a maximum height of 2160 pixels.

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

- Supports synchronous/asynchronous switching
- Supports HDMI loop-out
- Supports H.265 hardware decoding
- Supports cloud cluster control management
- Supports Android 7.1 system
- Supports comprehensive program control and display panel control via mobile/iPad, LAN, and PC
- Supports Wi-Fi connectivity and can function as a WiFi hotspot
- Low power consumption, stable and reliable performance suitable for wide temperature ranges
- Compact size for easy installation and maintenance

4 Product Features

4.1 Features

- Supports switching between synchronous and asynchronous signals
- Supports HDMI input and HDMI loop-out
- Supports H.265 high-definition hardware decoding playback
- Supports cloud cluster control management, enabling program release without on-site debugging.
- Supports multiple networking methods including LAN/WIFI/4G
- Supports various content types: HD video, images, text, weather, clock, etc.
- Supports multi-window playback with freely adjustable window size/position and window overlay
- Provides Android/iOS system apps
- Manage programs and configure settings via PC, mobile phone, tablet for flexible and convenient operation
- Supports RS485 sensor interface for monitoring environmental parameters like temperature, humidity, and brightness
- Automatically adjusts display brightness
- Supports NTP for precise timing
- Supports multi-screen synchronized display
- Supports USB flash drive updates for plug-and-play programming; also enables network-based program updates and management
- Features automatic and scheduled intelligent brightness adjustment
- Enables playback according to predefined program schedules
- Allows scheduled screen on/off settings via management system

4.2 Audio & Video Performance:

Programs Partition	Supports arbitrary partitioning of program windows and arbitrary layering of windows.
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 freely.
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 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	Supports playback according to scheduled programs
Management Software	APP Supports various Android and iOS devices
Scheduled power on/off	Centralized settings can be configured through the management system.

5 Product Appearance

Front Panel



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

5.1 Data Interface Description

Front Panel	
Name	Illustration
DC 12V	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 storage or other devices
WiFi	WiFi Antenna Connector
4G	4G Antenna Connector (Includes 4G antenna connector when opting for the 4G module)

Rear Panel

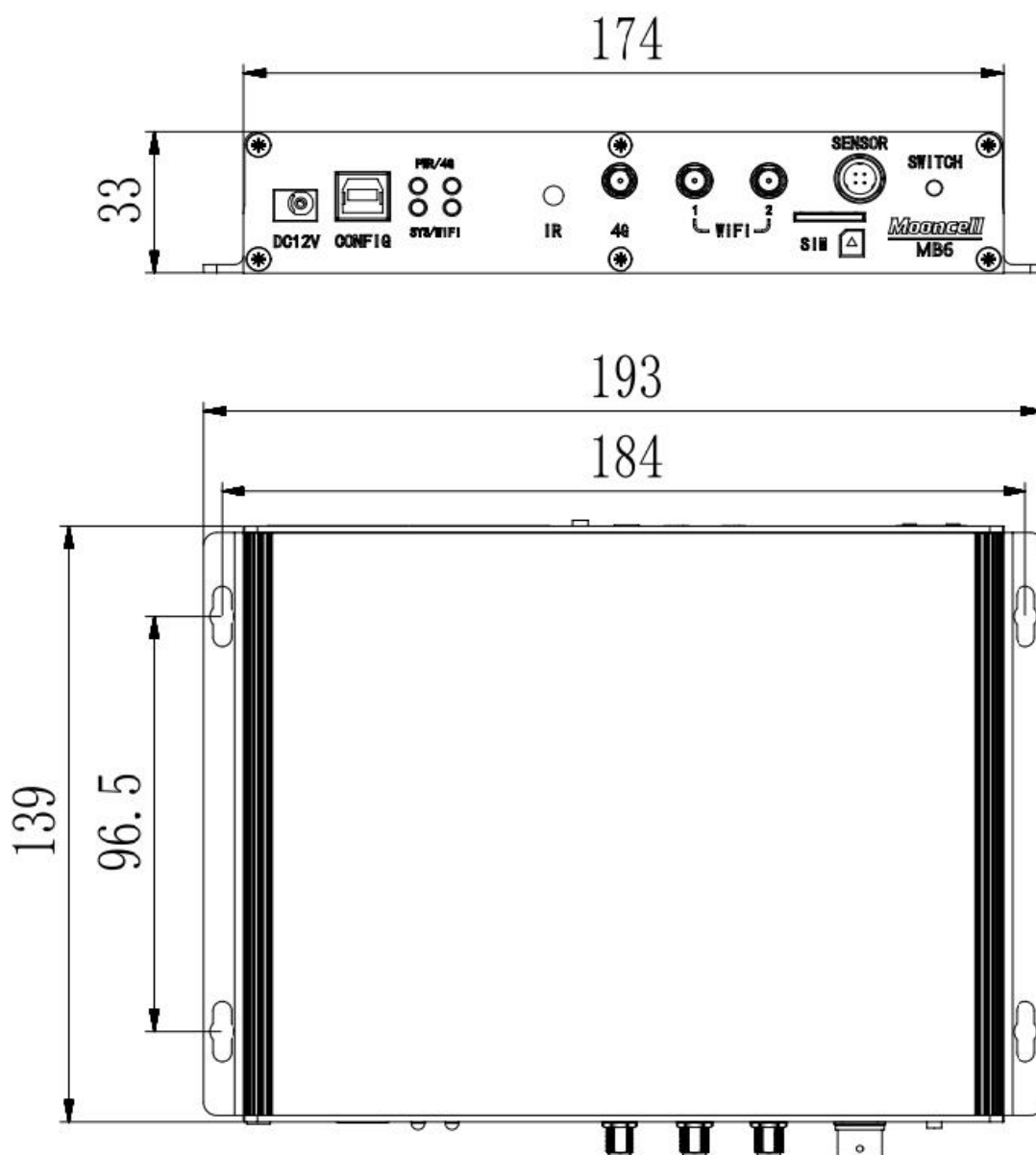


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Rear Panel	
Name	Illustration
LEDOUT	4 Gigabit Ethernet ports output signal
HDMI IN	HDMI Input
HDMI OUT	HDMI Output
CONFIG	Type B USB Port for Display Settings
SENSOR	Optical Sensor Port
SIM	Micro SIM Card Slot (4G Mobile SIM)

Name	Indicator Illustration
4G	4G Indicator Light: Remains on when connected to a 4G network
WiFi	WiFi Indicator Light: Remains on when connected to a wireless network
PWR	Power Indicator Light: Remains on when powered on
SYS	System Indicator Light: Flashes when the system is running

5.2 Dimensions(Size: mm)



Tolerance: ± 0.3 Unit: mm

6 Product Parameters

6.1 Performance Parameters

Performance Parameters	Processor: Octa-core CPU Memory: 2GB DDR3 high-speed RAM Flash Storage: 8GB eMMC high-speed storage Resolution: Supports H.265 4K HD hardware decoding playback
Network Access Method	100 Megabit, LAN、WiFi AP、WiFi STA, 4G Module (Optional)
Processing Capacity	Supports 2.3 Million pixels Maximum width: 3840 pixels, maximum height: 2160 pixels
Supported Receiving Cards	Mooncell Receiving Cards

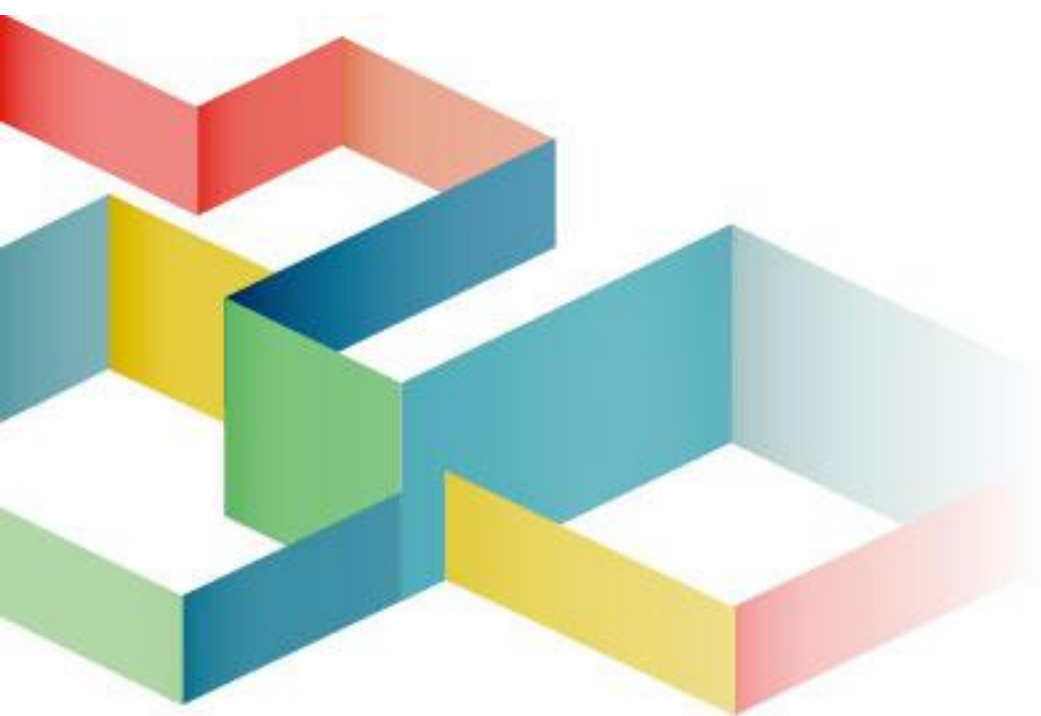
6.2 Specification

Electrical Parameters	Rated Voltage	DC 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	193mmX139mmX33mm	
Net Weight	0.6 Kg	
Packing Information	List: USB debugging cable, Wi-Fi antenna (2 pieces), 12V/2A power adapter (5.5mm × 2.5mm standard connector)	
	Option List: 4G Module (includes 4G module, antenna, and antenna mount)	
	Dimension	305*245*85mm
	Packaging	Outer packaging varies in size depending on qty.
	Gross Weight	1Kg

* 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.



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