



MB100S

Commercial Led Display Controller Series

Specification V4.0



CONTENT

1 Update Records	1
2 Product Introduction	1
3 Product Characteristics	1
4 Product Features	2
4.1Features	2
4.2Audio & Video Performance:	3
4.3Terminal Management:	3
5 Product Appearance	4
5.1 Data Interface Description	4
5.2 Dimensions(Size: mm)	6
6 Product Parameters	6
6.1Performance Parameters	6
6.2 Specification	7
7 Precautions	7

1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	MB1 (V1.6)	August 1(th), 2025	First release

2 Product Introduction

The MB100S is a custom-designed media player for irregularly shaped displays. It integrates a high-performance quad-core CPU and quad-core GPU chipset with a built-in sending card, supporting up to 650,000 pixels. This design significantly improves load utilization for irregular screens while delivering powerful video processing capabilities and exceptional cost-effectiveness.

The MB100S is widely applicable across commercial sectors for irregular LED displays such as sphere screens and circular screens, rings. Its built-in multimedia playback capability eliminates the need for a computer as a video source, delivering significant advantages.



3 Product Characteristics

- Supports Android 7.1 system;
- Supports comprehensive program control and display management across smartphones, tablets, PCs
- Supports multi-screen synchronized playback mechanism
- Supports Wi-Fi connectivity and can function as a Wi-Fi hotspot
- Low power consumption, minimal heat generation, stable and reliable performance suitable for wide temperature ranges

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).
- 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 HDMI output
- It supports to use the USB Flash drive 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.
- Supports AUTOLED host software for monitoring transmission card operating parameters and status
- Supports control of various irregular LED displays such as sphere screens and circular, ring screens

4.2 Audio & Video Performance:

Programs Partition	The Programs Windows could be partitioned arbitrarily ,and supports arbitrary window overlay
Video Format	MP4、MPG、MKV、MOV、3GP、WEMB 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	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/ Power on/off	Supports playback according to scheduled programs,support timing power on/off
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)

Rear Panel



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

Name	Illustration
LED OUT	1 Gigabit Ethernet port outputs signal to receiving card
HDMI	HDMI output
CONFIG	Set Display Parameters via USB Type-B Port
SENSOR	Optical sensor probe interface
SIM	Micro SIM card, 4G mobile SIM card

Indicator	Illustration
4G	Constant On: 4G module functioning normally Off: 4G module malfunctioning
PWR	Power Indicator: Remains on when powered
WIFI	Constant On: Wi-Fi hotspot functioning normally Off: Wi-Fi hotspot malfunctioning
SYS	Flashing: Operating system running normally Constant On/Off: Operating system malfunctioning

Tolerance: ± 0.3 Unit: mm

Performance Parameters	Processor: Quad-core CPU
	Memory: 1GB DDR3 high-speed RAM
	Flash Storage: 8GB EMMC high-speed storage
	Resolution: Supports 1080p HD hardware decoding playback

Network Access Method	100 Megabit, LAN、WiFi AP/Station、4G Module (Optional)
Processing Capacity	Supports 650,000 pixels Maximum width: 1920 pixels, maximum height: 1080 pixels
Supported Receiving Cards	Mooncell Receiving Cards

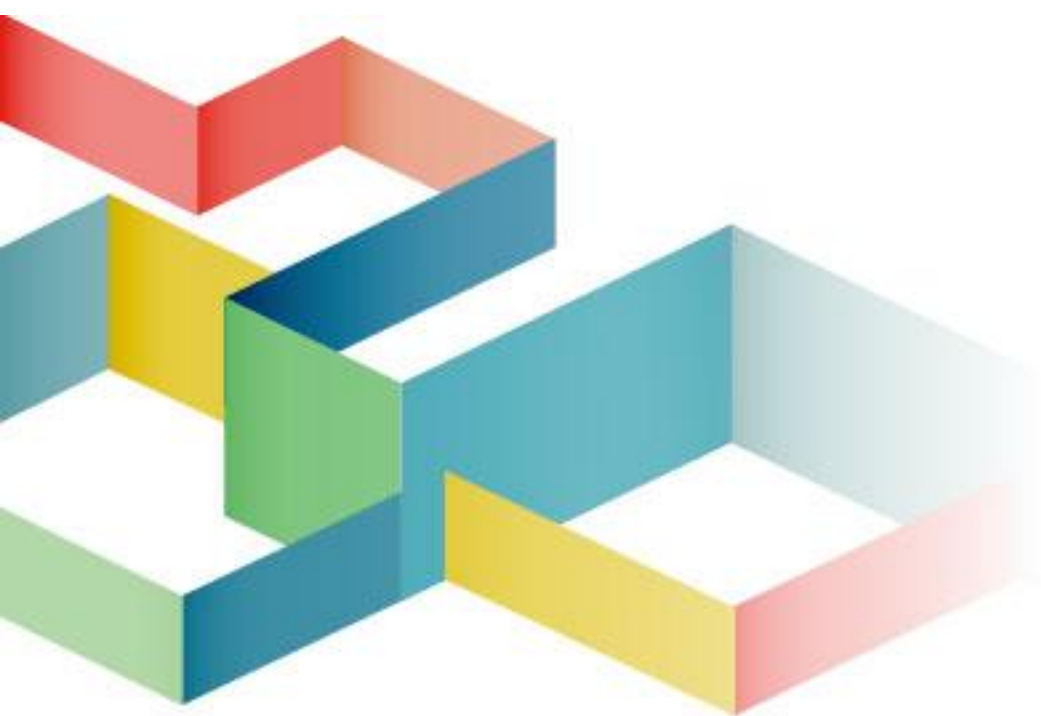
6.2 Specification

Electrical Parameters	Rated Voltage	5V
	Rated Power	6W
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×112.2mm×29.75mm	
Net Weight	0.41Kg	
Packing Information	List	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	275mm×211mm×76mm
	Packaging	Single unit, outer packaging varies in size depending on quantity.
	Gross Weight	0.77Kg

* 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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