



*Shenzhen Mooncell Electronics Co., Ltd*

*Asynchronous Control Card  
MBR16 Specifications*

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# ***MBR16 Control Card***

## ***Product Overview***

### ***Introduction to MBR16:***

*MBR16 control card adopts high-performance 4-core CPU+GPU chip-set and integrates sending and receiving card as one, it has 16x HUB75E interfaces, it could support the maximum 32 sets of RGB parallel connection data, it supports video, picture, text and other multimedia playback, with high cost performance.*

### ***Product Features***

- *Support Android7.1 system*
- *PC, Mobile Phones and Tablets are supported to be used to control and manage with the programs and its parameters*
- *it supports cloud cluster control management. You don't have to be on site to configure you screen.*
- *It supports to have multiple displays to work simultaneously (synchronized).*
- *Support Ethernet Interface*
- *Support WIFI/HOTSPOT*
- *Low power consumption, small size, easy installation, stable and reliable performance*

### ***Application Scenarios***

*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).*

## ***Introduction to its Functions***

### ***Performances***

- ◆ *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/Manually 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 to use the USB Flash disk to update the programs, plug and play.*
- ◆ *It supports to play the programs as in "player list" orders*
- ◆ *It supports remote switch the screen on/off via the relay switch.*
- ◆ *it supports cloud cluster control management*

### ***Audio and Video Performance***

<i>Programs Partition</i>	<i>The Programs Windows could be partitioned as you wish, and the same with the superposed windows.</i>
<i>Video Format</i>	<i>AVI, WMV, MPG, RM/RMVB, MOV, DAT, VOB, MP4, FLV, etc.</i>
<i>Audio Format</i>	<i>MPEG-1 Layer III, AAC, etc.</i>
<i>Image Format</i>	<i>BMP, JPG, PNG, etc.</i>
<i>TXT Display</i>	<i>Single-Line TXT, Static TXT, Multi-Line TXT</i>
<i>Image Partition</i>	<i>It supports Video, Image, Scrolling Caption, LOGO, Data and Time; the</i>

	<i>images could be partitioned as you wish.</i>
<i>OSD Supported</i>	<i>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.</i>
<i>RTC(Real Time Clock)</i>	<i>Real Time Clock Display and Management</i>

## ***Terminal Management***

<i>Network Communication</i>	<i>LAN/WIFI/4G</i>
<i>Programs Update</i>	<i>USB Flash Disk Plug and Play,Terminal Ethernet Management</i>
<i>Device Management</i>	<i>PC,Android,IOS and some other Smart Terminal Devices</i>
<i>Wireless Control</i>	<i>Brightness Real Time Adjustment,On/Off Display,System Parameters Settings,Programs Play Management,Wireless Sending the Programs</i>
<i>Brightness Automatically Adjustment</i>	<i>The brightness could be automatically adjusted based on the real time environmental situations or the set schedules.</i>
<i>Fixed(Set) Time Playing/Timing Playing</i>	<i>To play the programs as in “player list”orders.</i>
<i>Timing Switch On/Off</i>	<i>Through the Management System to get the centralized setting.</i>
<i>Management Software</i>	<i>The Application is supported to be used on any Android or IOS devices.</i>

## ***Product Parameters***

### ***Basic Parameters***

<i>Performances</i>	<i>Processor: 4-Core CPU + GPU</i> <i>Memory: 1G DDR3</i> <i>Flash Memory: 8G EMMC</i> <i>Medias Supported: support video, picture, text playback</i>
<i>Network access method</i>	<i>LAN, WIFI AP, 4G Module</i>
<i>Processing Ability</i>	<i>The maximum loading capacity: 190 thousand pixels</i> <i>Widest: 1920 pixels, Highest: 1080 pixels</i>

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**Hardware Interface****Interface Illustration**

Name	Illustration
PWR	5V power interface, 4P-2.54MM socket
AUDIO OUT	Audio output interface, 1/8" (3.5mm) TRS plug
ETHERNET	Ethernet interface

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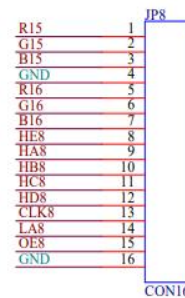
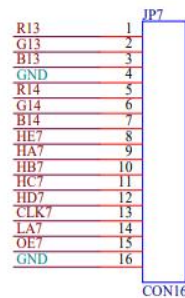
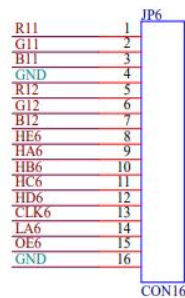
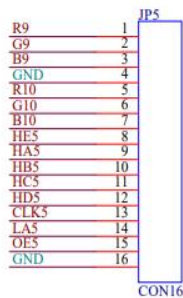
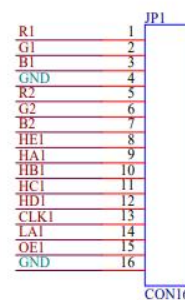
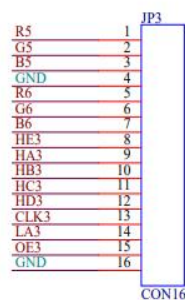
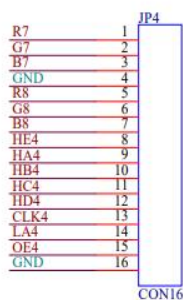
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USB	USB2.0*2, can be connected to external U disk storage or other devices
WiFi-AP	WiFi AP Antenna Interface
GPS antenna	GPS antenna interface, optional
4G antenna	4G antenna interface, optional
SIM card slot	Support 4G Micro sim card, select 4G module according to the actual network.
RS485	4P-2.54MM connector, can be connected to external brightness sensor
HUB75E Interface	16x HUB75E interfaces, to be connected to the led screen
3PIN relay switch	Control DC switch, maximum voltage 30V, maximum current 3A

**32 Sets of Parallel Connection Data PIN Definition**



**JP1—JP16 Definition**

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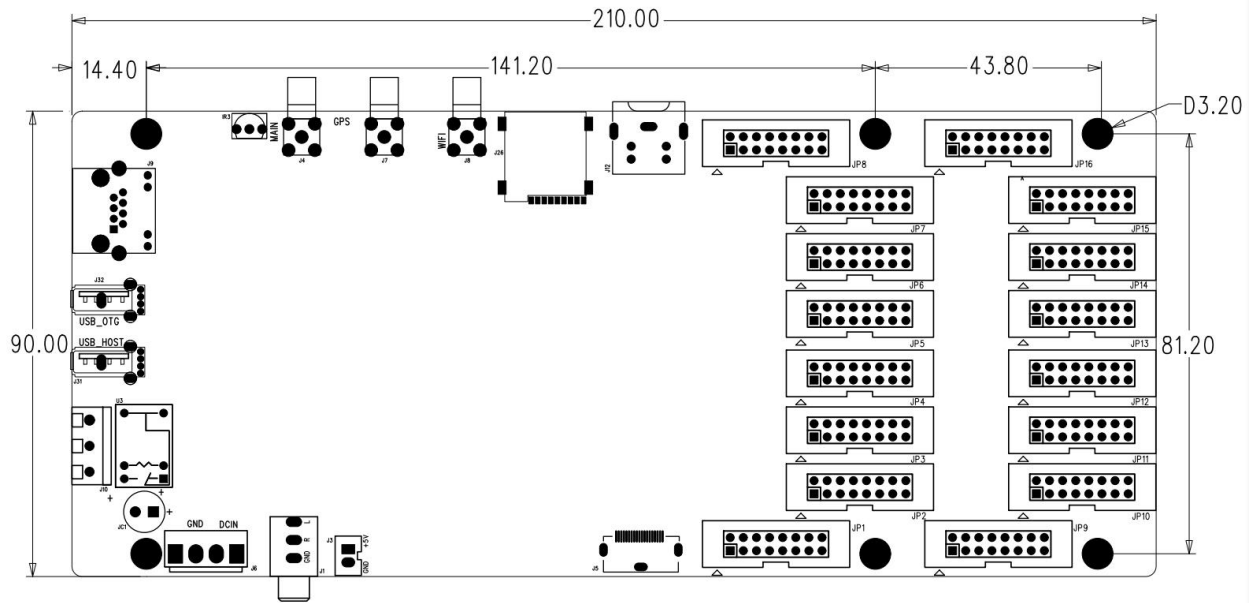
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PIN#	1	3	5	7	9	11	13	15
Definition	R0	B0	R1	B1	A	C	CLK	OE
PIN#	2	4	6	8	10	12	14	16
Definition	G0	GND	G1	E	B	D	LAT	GND

**Product Dimensions(Unit: mm)**



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## Product Specifications

<i>Basic Specifications</i>		
<i>Electronic Parameters</i>	<i>Input voltage</i>	<i>5V</i>
	<i>Rated power consumption</i>	<i>10W</i>
<i>Working Environment</i>	<i>Operating temperature</i>	<i>-20°C~70°C</i>
	<i>Operating humidity</i>	<i>0RH-85%RH, no condensation</i>
<i>Packaging Information</i>	<i>Carton + bubble bag</i>	
<i>Power</i>	<i>Input voltage: DC 5V/3A</i>	
<i>Product Dimensions</i>	<i>210mm X 90mm X 24mm</i>	
<i>Product Weight</i>	<i>206g</i>	
<i>Accessories List</i>	<i>1xMB75E, 1xWIFI antenna, 1x4G antenna, 1xcertificate</i>	