Mooncell

A716 Receiving Card

Specification V3.7

Shenzhen Mooncell Electronics Co., Ltd

1 Product Overview

Product Introduction

A716 is a standard receiving card that is fully researched and developed by Mooncell; it adopted 16x HUB75E interfaces; it can supports the maximum 32 groups of the parallel connection data;the maximum loading capacity could reach up to512*384 pixels; with strong processing ability, supper reliability and high competitive price.

Application Scenarios

It could be widely used for high-end LED display area that requires high standards; and has significant advantages in application scenarios such as led rental display, TV Broadcast, LED display for respectable Event,High-end project,etc.

2 Function Introduction

Displaying Effect

It supports pixel level brightness and Chroma Calibration	Using it with the Mooncell Calibration Software to calibrate each one of the pixels on its brightness and Chroma. It can effectively eliminate the Chromatic aberration so as to enhance its consistency of the brightness and Chroma to a high level and result in a better displayed effects.
Multiple Solutions of the Displayed Effects are Supported	Using it with Monncell AutoLED Software, the Refresh and Grey Scale performances are able to take the precedence over other settings.
The Images on the led screen can be rotated 90 degree in a factor of multiple times	Using it with Mooncell AutoLED Software.
The images can be zoomed in or out	Using it with Mooncell AutoLED
18Bit+	Enabling 18Bit + on the software can increase the gray scale of the LED display by 4 times. Effectively deal with the problem of grey release loss caused by the reduction of brightness of the LED display,Solve the pitting problem caused by low

	gray correction, making the low gray degree of the image more delicate
Low latency	Reduce the delay of the video source on the receiving card. Latency as low as 1 frame (for light boards with driver ICs using built-in RAM)
RGB Independent Gamma Adjustment	With independent master and software that supports RGB independent gamma adjustment, By adjusting the "red Gamma", "green Gamma" and "blue Gamma" respectively, Effectively deal with the problems of the display screen, such as uneven low gray, white balance drift, etc. Make the display more realistic.

Enhanced Operability:

The Receiving Card is Supported to detect its own Sequence number	Using the Network Port testing function on Mooncell AutoLED Software, the receiving card serial number and the Network Port Information will be displayed on the target cabinet. Users will be able to get to know the locations of the receiving cards as well as its Connection diagram.
Data Port User-Defined is supported	Using it with the Mooncell AutoLED Software, you can detect and edit the output data of the receiving cards.
To build up a complicated cabinet is supported	On AutoLED Software, there is an ‘Advanced Setting’, from here you can quickly arrange or structure the modules at your option.
To structure a complicated Led	On AutoLED Software, there is a “Complicated Led Screen Connection”, from here you can quickly

Screen is supported	arrange or structure the cabinet modules on your option.

Hardware Stability

Ethernet Cable Backup(Hot Backup)	The main cable will be having the loop connection. If there's one cable breaks then still there will have another one to make sure the led display work properly.
	Dual receiving cards backup is supported(Dual Circuit backup design) Customized :when the main working receiving card fails, the other one (backup) will take its job to keep the led display working properly.
Support voltage detection (customized)	Support detecting the working voltage of the receiving card
Support temperature detection (customized)	Support detecting the working temperature of the receiving card
Support power status detection (Customized)	The hardware has a power detection interface for detecting the working status of the power supply

Smart Software and Hardware Stability

The receiving card can read the configuration data back from where it has been stored	You will be able to do this on Mooncell AutoLED Software.
It supports to detect the error rates of the network cable	On the Mooncell AutoLED Software, you can detect the network cable connectivity in real time to tell the condition of the network cables, so that you can get rid of any errors immediately.
Communication Monitoring Function	On Mooncell AutoLED Software, you can monitor the Working Status of the receiving cards in real time.

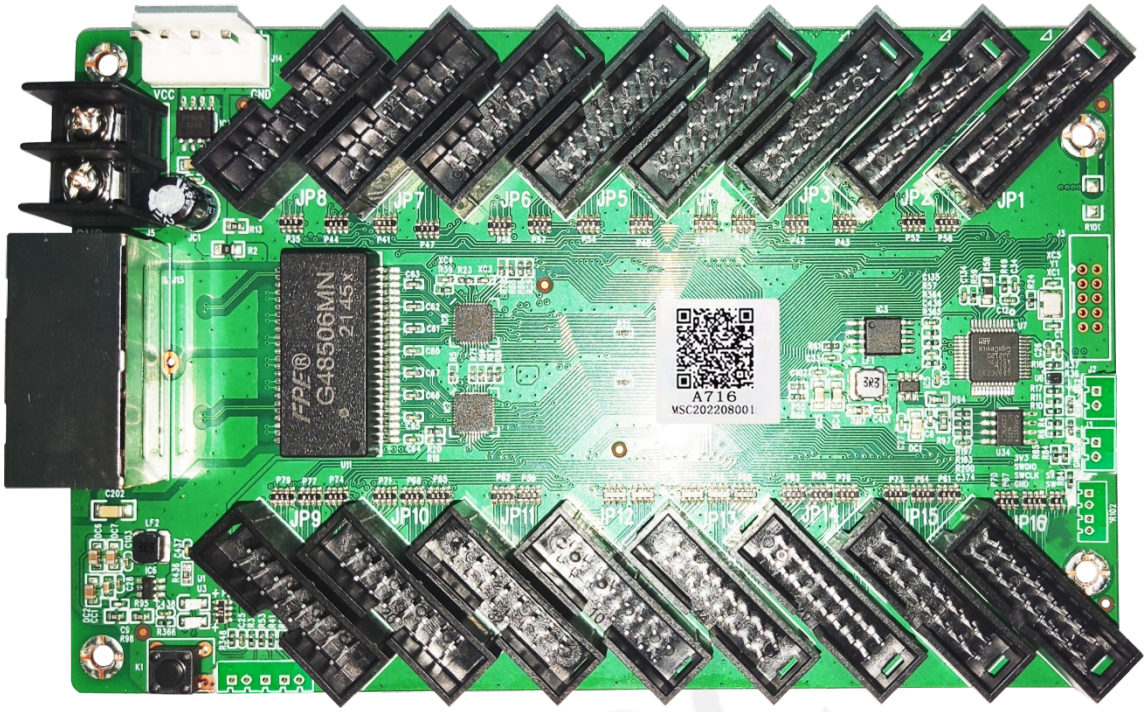
3 Product Parameters

Basic Parameters

RGB Parallel	Data Ports/ Interfaces/ QTY	Driver IC	Maximum Loading Capacity	Loading Capacity After lightness Calibrating （Pixels）	Loading Capacity after Color Calibrating (Pixels)
24 Groups	HUB75E/16	Conventional	512*384	512*256	256*320
		PWM	512*512	512*512	256*320

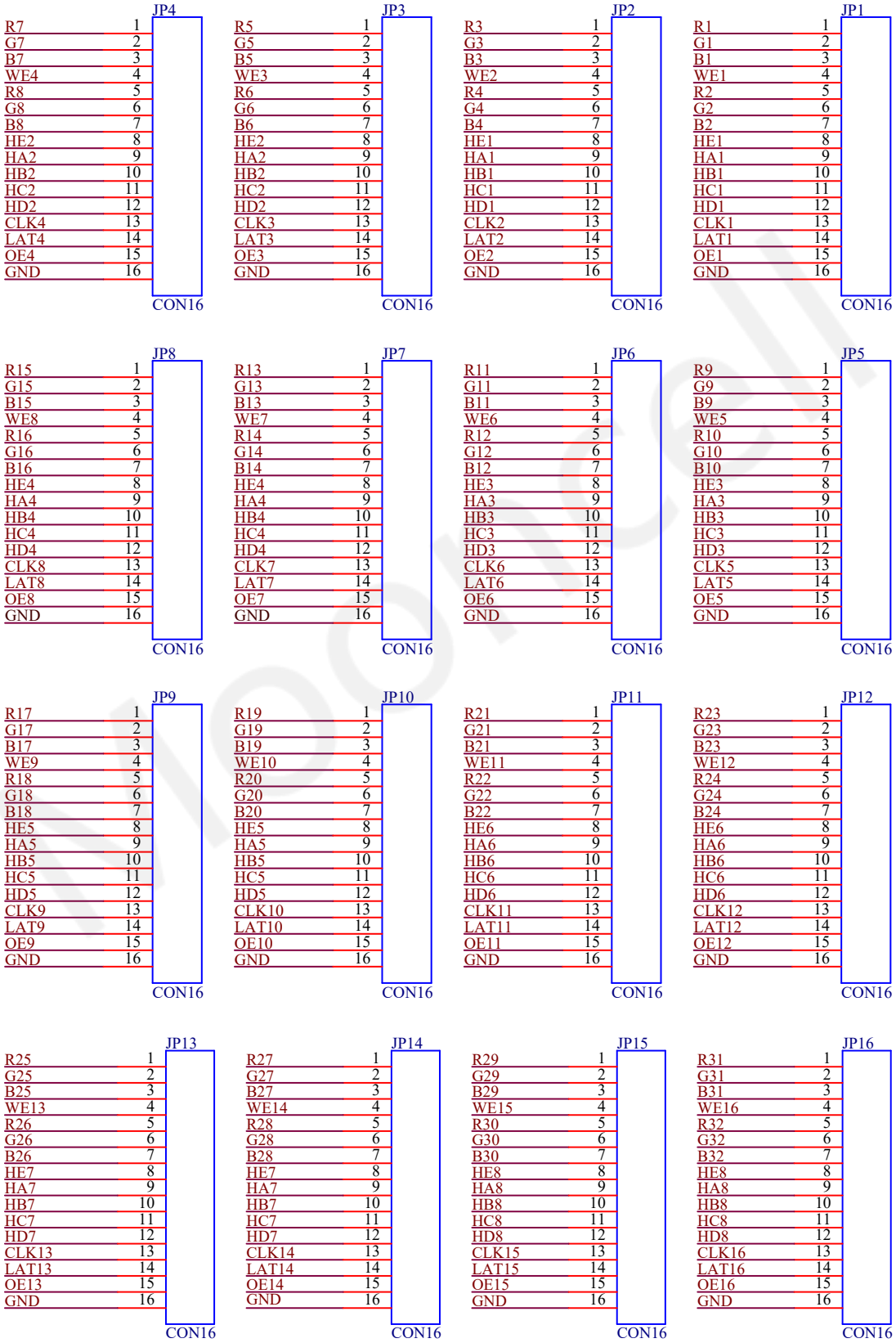
Single Network Pot Cascading Quantity	Scanning Lines Supported		
≤1000PCS	1-64 Scan		

Hardware Introduction



Output Port Definition

Port Definition of the 32 Groups of parallel connection data



JP1-JP16 PIN Definition:

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

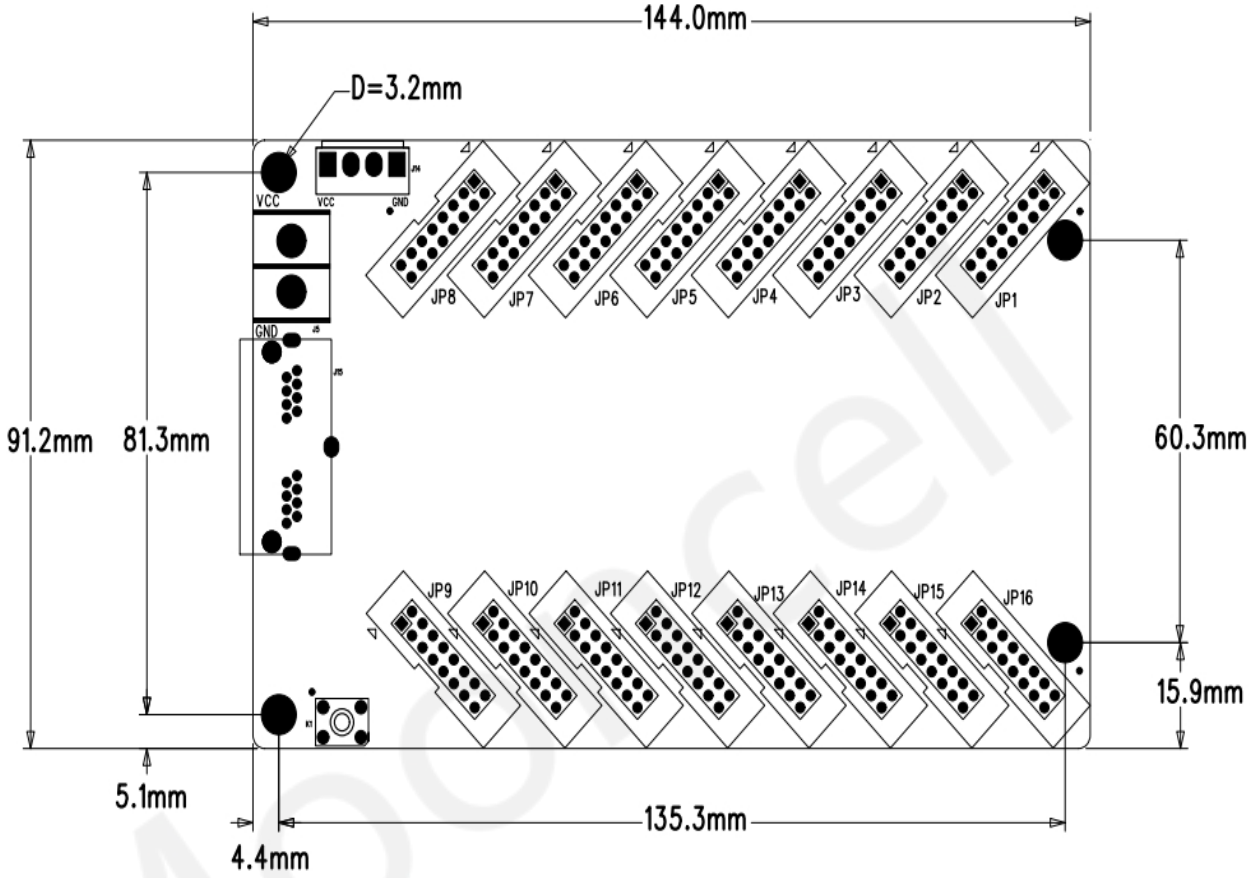
J12 Definition:

PIN#	1	2	3	4	5
Definition	GND\KEY-	KEY+	LEDR-	3V3\LED+	LEDG-

Indicator Illustration

Indicat	Positio	Status	Illustration
Status Indicator (Green)	U1	Flickering Slowly at a constant	The receiving card is working properly, The Ethernet Cable Connection is fine, No DVI
		Flickering Fast at a constant speed	The receiving card is working properly, The Ethernet Cable Connection is fine, with DVI
		It goes out	No Gigabit Ethernet Signal
		Fast Flickering 3 Tunes	The receiving card is working properly, The Ethernet Cable Loop Connection is fine, DVI
Status Indicat	U3	Long Lasting On	Power is On

Dimensions


144.0mm
D=3.2mm
VCC
VCC
GND
GND
JP8
JP7
JP6
JP5
JP4
JP3
JP2
JP1
91.2mm
81.3mm
60.3mm
JP9
JP10
JP11
JP12
JP13
JP14
JP15
JP16
15.9mm
5.1mm
135.3mm
4.4mm

4 Product Specifications

Specifications

Electric Parameters	Input Voltage	DC3.5-5.5V
	Rated Current	0.6A
	Rated Power	3W
Operating Environment	Operating Temperature	-20℃ - 70℃
	Operating Humidity	10%RH-90%RH
Storage Environment	Temperature	-25℃～125℃
Dimensions	144.mmX91.2mm	
Net Weight	106.7g	
Certifications	It conforms to RoHS and CE-EMC standards.	

Precautions

1. **The testing (debugging) and installation should be done by the qualified professionals**
2. **Anti-Static, Water-Proof and Dust-Proof Required**