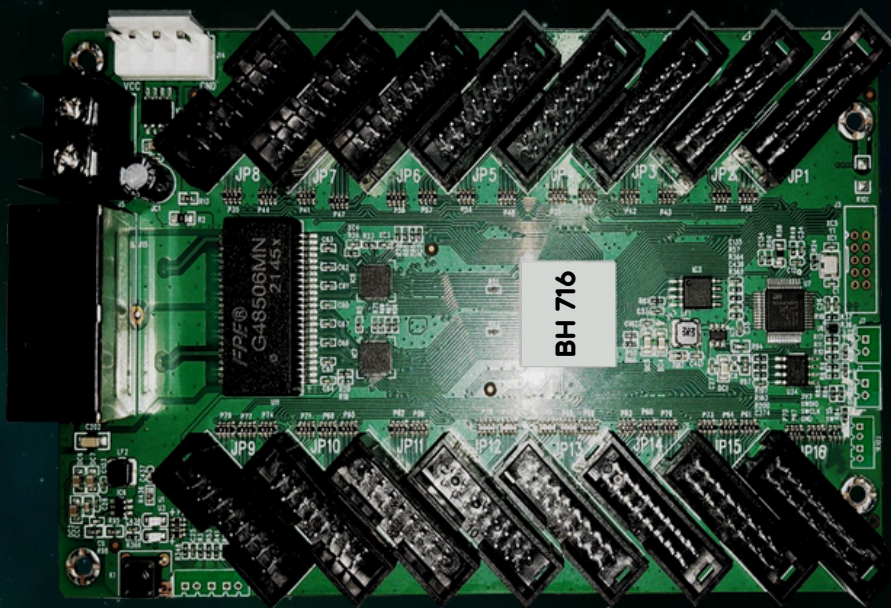




# FPGA Receiving Card BH 716

## Product Specifications



# CONTENT

<b>1. Product Overview</b>	<b>1</b>
Product Introduction	1
Application Scenarios	1
<b>2. Function Introduction</b>	<b>2</b>
<b>3. Product Parameters</b>	<b>5</b>
Basic Parameters	5
Hardware Introduction	6
Output Port Definition	6
Indicator Illustration	9
Dimensions	10
<b>4. Product Specifications</b>	<b>11</b>
Specifications	11
Precautions	12

# 1. Product Overview

## Product Introduction -

**BH 716** is a receiving card that fully researched and developed by **METTA STAR**; it adopted 16xHUB75E interfaces; it can supports the maximum 32 groups of the parallel connection data; the maximum loading capacity could reach up to 256\*512 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 METTA STAR 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 MS COMMANDER 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 MS COMMANDER Software.

**The images can be zoomed in or out -**

Using it with MS COMMAMDER Software.



## Enhanced Operability

**The Receiving Card is Supported to detect its own Sequence number -** Using the Network Port testing function on MS COMMANDER 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 MS COMMANDER Software, you can detect and edit the output data of the receiving cards.

**To build up a complicated cabinet is supported -**

On MS COMMANDER Software, there is 'Advanced Setting', from here you can quickly arrange or structure the modules at your option.

**To structure a complicated Led Screen is supported -** On MS COMMANDER Software, there is a "Complicated Led Screen Connection", from here you can quickly 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.

**The receiving card can read the configuration data back from where it has been stored -**

You will be able to do this on MS COMMANDER Software.

**It supports to detect the error rates of the network cable** - On the MS COMMANDER 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.

**Dual Power Supplies Backup is supported** - Two Power Supplies can be connected simultaneously and the working status can be detected. Whenever there's a power supply failure, it can be detected, the system then will automatically decrease the brightness of the led screen so that it can still keep working properly.

**It supports to detect the voltage, Temperature and Power (customized)** - It will detects the voltage status of the receiving cards .The operating temperature of the receiving cards could be detected. The power status of the power supplies could be detected.

### 3. Product Parameters

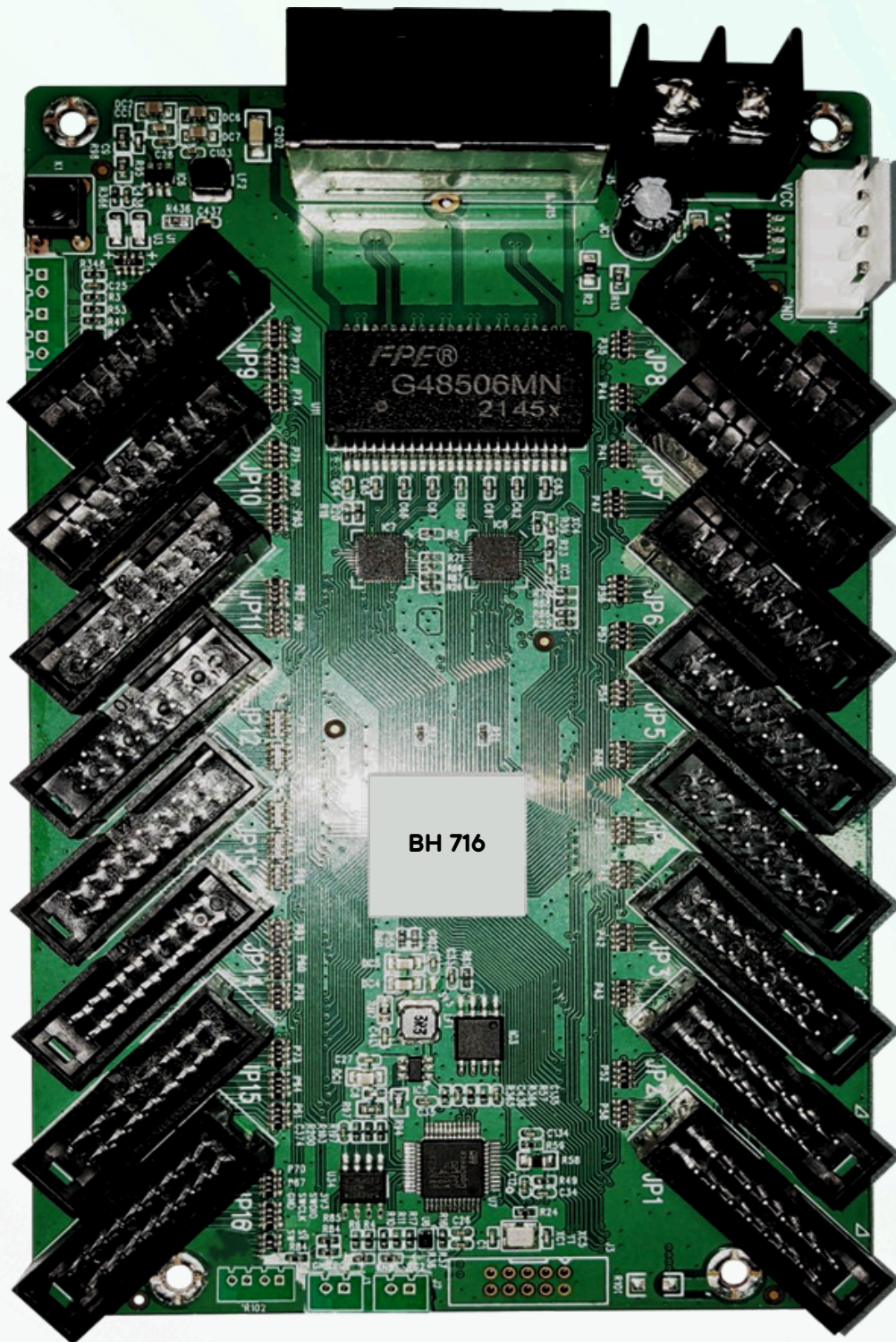
RGB Parallel	The Maximum Loading Capacity(Pixels)	Loading Capacity After lightness Calibrating (Pixels)	Loading Capacity after Color Calibrating (Pixels)
32 Groups	256*512	256*512	160*512

#### Basic Parameters -

- Single Network Pot Cascading Quantity  $\leq 1000$ PCS
- Scanning Lines Supported - 1-64 Scan



## Hardware Introduction





## Output Port Definition

Port Definition of the 32 Groups of parallel connection data -

<b>IP4</b> R7 1 G7 2 B7 3 WE4 4 R8 5 G8 6 B8 7 HE2 8 HA2 9 HB2 10 HC2 11 HD2 12 CLK4 13 LAT4 14 OE4 15 GND 16 CON16	<b>IP3</b> R5 1 G5 2 B5 3 WE3 4 R6 5 G6 6 B6 7 HE2 8 HA2 9 HB2 10 HC2 11 HD2 12 CLK3 13 LAT3 14 OE3 15 GND 16 CON16	<b>IP2</b> R3 1 G3 2 B3 3 WE2 4 R4 5 G4 6 B4 7 HE1 8 HA1 9 HB1 10 HC1 11 HD1 12 CLK2 13 LAT2 14 OE2 15 GND 16 CON16	<b>IP1</b> R1 1 G1 2 B1 3 WE1 4 R2 5 G2 6 B2 7 HE1 8 HA1 9 HB1 10 HC1 11 HD1 12 CLK1 13 LAT1 14 OE1 15 GND 16 CON16
<b>IP8</b> R15 1 G15 2 B15 3 WE8 4 R16 5 G16 6 B16 7 HE4 8 HA4 9 HB4 10 HC4 11 HD4 12 CLK8 13 LAT8 14 OE8 15 GND 16 CON16	<b>IP7</b> R13 1 G13 2 B13 3 WE7 4 R14 5 G14 6 B14 7 HE4 8 HA4 9 HB4 10 HC4 11 HD4 12 CLK7 13 LAT7 14 OE7 15 GND 16 CON16	<b>IP6</b> R11 1 G11 2 B11 3 WE6 4 R12 5 G12 6 B12 7 HE3 8 HA3 9 HB3 10 HC3 11 HD3 12 CLK6 13 LAT6 14 OE6 15 GND 16 CON16	<b>IP5</b> R9 1 G9 2 B9 3 WE5 4 R10 5 G10 6 B10 7 HE3 8 HA3 9 HB3 10 HC3 11 HD3 12 CLK5 13 LAT5 14 OE5 15 GND 16 CON16
<b>IP9</b> R17 1 G17 2 B17 3 WE9 4 R18 5 G18 6 B18 7 HE5 8 HA5 9 HB5 10 HC5 11 HD5 12 CLK9 13 LAT9 14 OE9 15 GND 16 CON16	<b>IP10</b> R19 1 G19 2 B19 3 WE10 4 R20 5 G20 6 B20 7 HE5 8 HA5 9 HB5 10 HC5 11 HD5 12 CLK10 13 LAT10 14 OE10 15 GND 16 CON16	<b>IP11</b> R21 1 G21 2 B21 3 WE11 4 R22 5 G22 6 B22 7 HE6 8 HA6 9 HB6 10 HC6 11 HD6 12 CLK11 13 LAT11 14 OE11 15 GND 16 CON16	<b>IP12</b> R23 1 G23 2 B23 3 WE12 4 R24 5 G24 6 B24 7 HE6 8 HA6 9 HB6 10 HC6 11 HD6 12 CLK12 13 LAT12 14 OE12 15 GND 16 CON16

### JP1-JP16 PIN Definition -

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

### JP12 Definition -

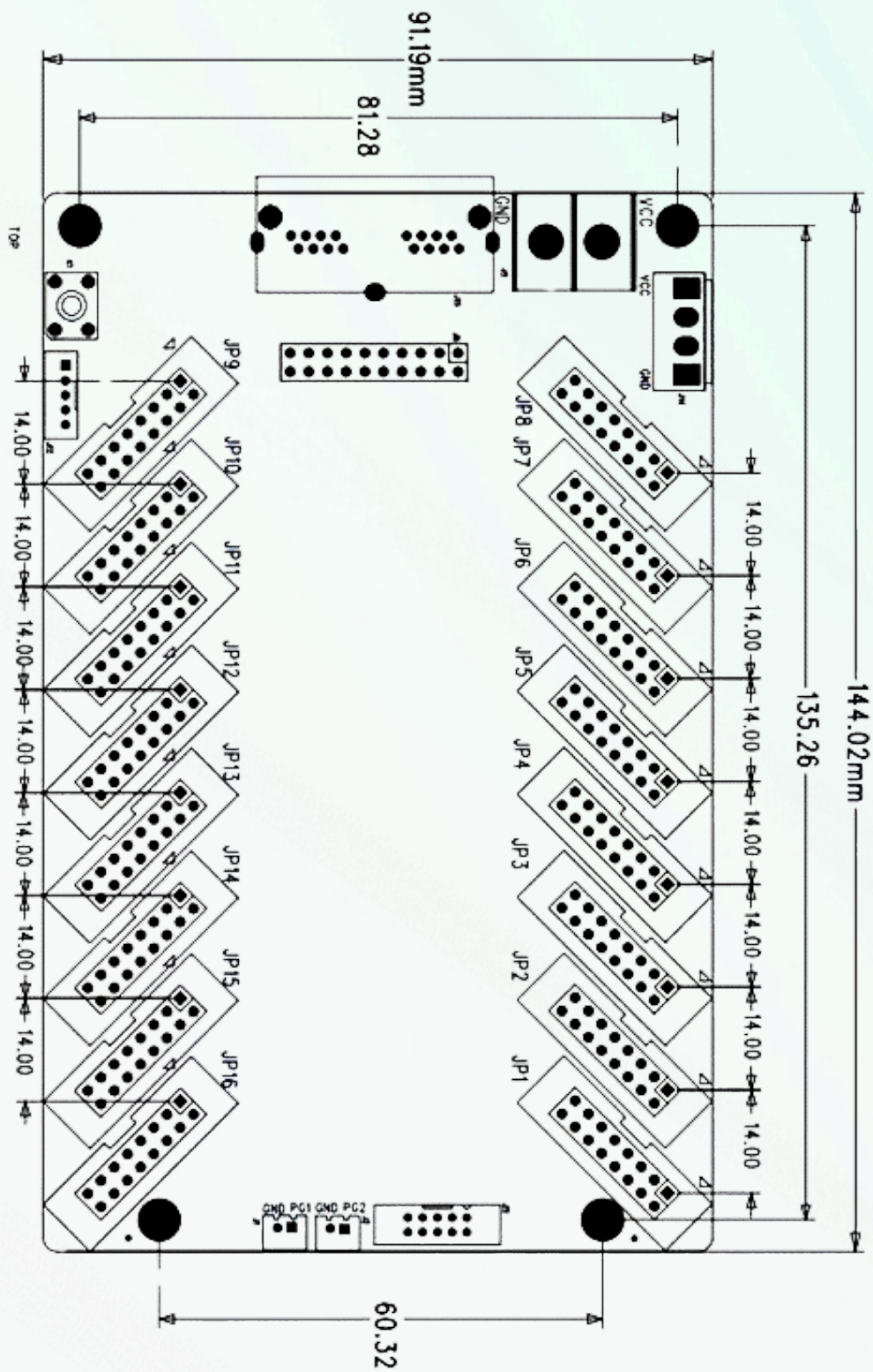
PIN#	1	2	3	4	5
Definition	GND\KEY-	KEY+	LEDR-	VCC\LED+	LEDG-

### Indicator Illustration -

Indicator	Position	Status	Illustration
Status Indicator (Green)	U6	Flickering Slowly at a constant	The receiving card is working properly, The Ethernet Cable Connection is fine, No DVI Signal Input
		Flickering Fast at a constant	The receiving card is working properly, The Ethernet Cable Connection is fine, with DVI Signal Input.
		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 Signal Input
Status Indicator	U5	Long Lasting On	Power is On



## Dimensions -



## 4.Product Specifications

### Specifications

Electric Parameters	Input Voltage	DC3.5-5.5V
	Rated Current	0.6A
	Rated Power	3W
Operating Environment	Operating Temperature	-20°C - 70°C
	Operating Humidity	10%RH-90%RH
Storage Environment	Temperature	-25 <sup>°C</sup> ~ 125 <sup>°C</sup>
Dimensions	144.02mmX91.19mm	
Net Weight	106.7g	
Certifications	It conforms to RoHS and CE-EMC standards.	

## **PRECAUTIONS -**

- **Safety: Follow standard safety practices when working with electrical equipment, such as wearing appropriate protective gear and avoiding contact with exposed electrical connections.**
- **The testing (debugging) and installation should be done by the qualified professionals.**

**THANK YOU FOR CHOOSING METTA STAR PRODUCT.**