Mooncell

Shenzhen Mooncell Electronics Co., Ltd

FPGA Receiving Card

A708 Product Specifications

Content

Updates History

File Version	Released Date	Updates Records
V3.0	31/03/2020	First Edition
V3.2	28/012021	Parameters Edited

1 Product Overview

Product Introduction

A708 is a standard receiving card that is fully researched and developed by Mooncell; it adopted 8x HUB75E interfaces; it can supports the maximum 16 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.

2Function 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*

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*

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	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 Screen is supported	On AutoLED Software, there is a "Complicated Led Screen Connection", from here you can quickly arrange or structure the cabinet modules on your option.

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.
Dual Power Supplies Backup is supported	2 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	It will detects the voltage status of the receiving cards.

voltage(customized)	
It supports to detect the temperature(customized)	*The operating temperature of the receiving cards could be detected.*
It supports to detect the power status(customized)	*The power status of the power supplies could be detected.*

Web:www.mooncell.com.cn
Skype:cheersnigel
ADD:1st Floor,Comprehensive Building, Baoshi South Road,Shiyan Town, Baoan District, Shenzhen,PRC

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WhatsApp:+8618673763873

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3Product Parameters

Basic Parameters

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

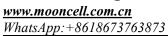| Single Network Pot Cascading Quantity	Scanning Lines Supported		
≤1000PCS	1-64 Scan		

Hardware Introduction

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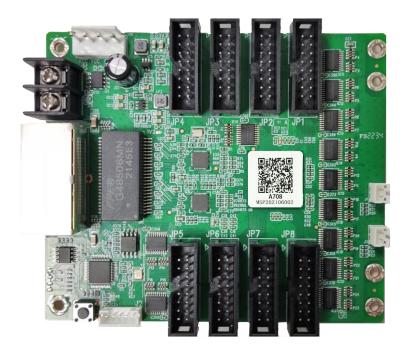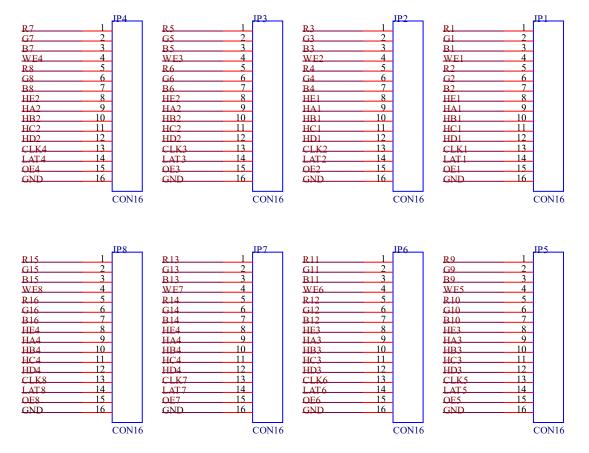*ADD:1st Floor,Comprehensive Building, Baoshi South Road,Shiyan Town, Baoan District, Shenzhen,PRC*

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Output Port Definition

Port Definition of the 16 Groups of parallel connection data

JP4 — CON16

Signal	Pin
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

JP3 — CON16

Signal	Pin
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

JP2 — CON16

Signal	Pin
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

JP1 — CON16

Signal	Pin
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

JP8 — CON16

Signal	Pin
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

JP7 — CON16

Signal	Pin
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

JP6 — CON16

Signal	Pin
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

JP5 — CON16

Signal	Pin
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

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JP1-JP8 PIN Definition：

Definition	PIN#	PIN#	Definition
R	1	2	G
B	3	4	GND
R	5	6	G
B	7	8	GND
R	9	10	G
B	11	12	GND
R	13	14	G
B	15	16	GND
OUT_A1	17	18	OUT_B1
OUT_C1	19	20	OUT_D1
OUT_E1	21	22	GND
OUT_CLK1	23	24	OUT_LA1
OUT_OE1	25	26	GND

J2 Indicator PIN Definition:

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

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

J14 Socket PIN Definition:

PIN#	1	2	3	4
Definition	VCC	VCC	GND	GND

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Skype:cheersnigel
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Indicator Illustration

Indicator	Position	Status	Illustration
Status Indicator (Green)	U3	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	U1	Long Lasting On	Power is On

Dimensions

4Product 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	*107.4mmX91.5mm*	
Net Weight	*75g*	
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*