Metta Star

Endless Possibilities

FPGA Receiving Card
BH 308

Product Specifications

CONTENT

1. Product Overview

Product Introduction –

BH 3O8 is a high-end & small-sized receiving card that produced by **METTA STAR** with large loading capacity, the maximum pixels in total it could load can up to 512X384.It has a very high processing performance together with the high stability & reliability, given that the **BH 3O8** has been widely used at different respectable places and is well accepted by the users.

Application Scenarios –

It can be widely used in the field of high-density small-pitch display. It has significant advantages in application scenarios such as command center, monitoring center, large-scale conferences, live TV broadcasts, and hotel exhibition projects.

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.

3. Product Parameters

RGB Parallel	The Maximum Loading Capacity (Pixels)	Cascading Cards QTY	Scanning Lines Supported
32Sets	512*384	≤1000PCS	1-64 Scan

Basic Parameters -

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

Hardware Introduction
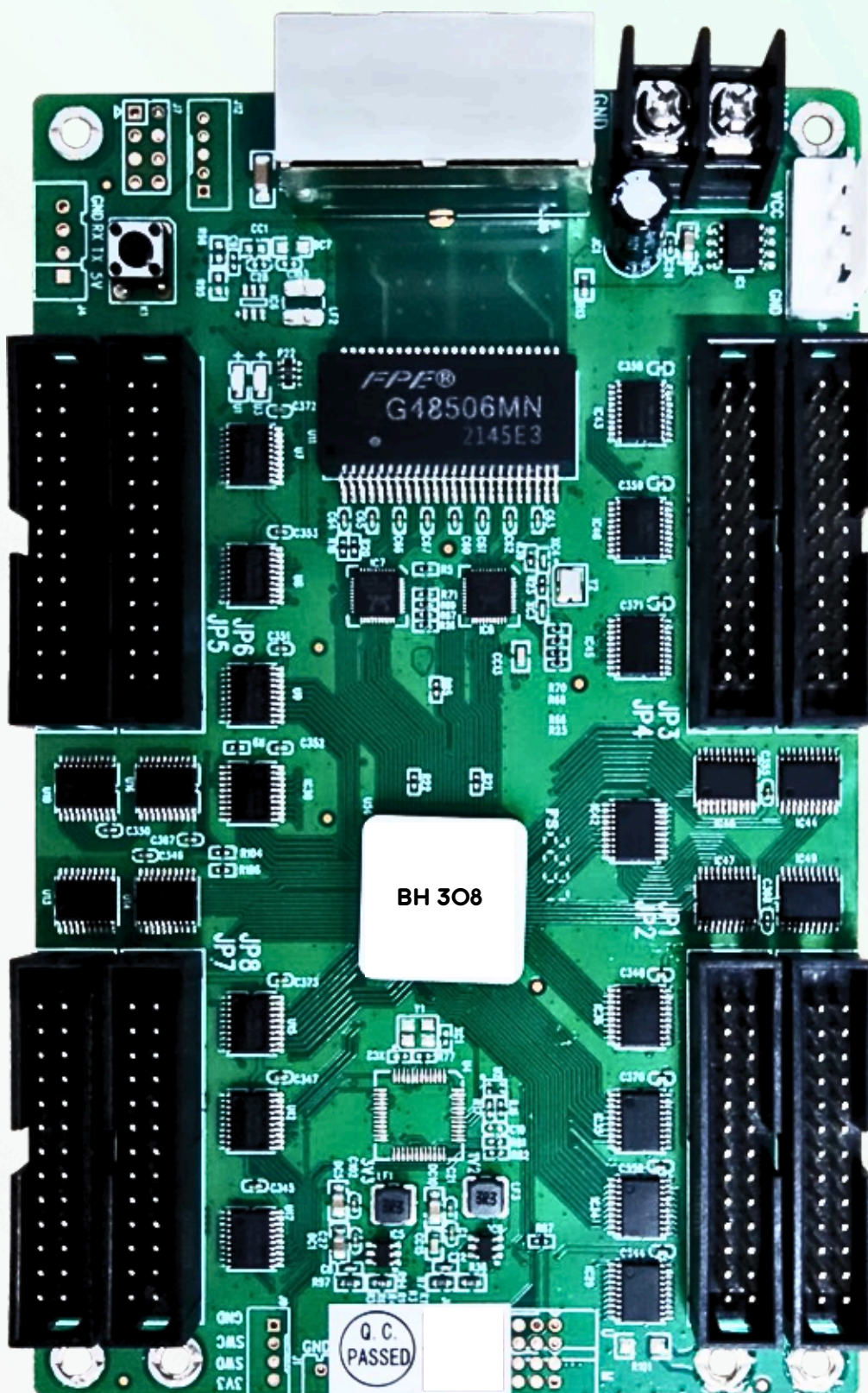
Output Port Definition

Port Definition of the 24 Groups of parallel connection data –

JP1 (CON26)

Signal	Pin
OUT_0	1
OUT_1	2
OUT_2	3
D_1	4
OUT_3	5
OUT_4	6
OUT_5	7
SGND	8
OUT_6	9
OUT_7	10
OUT_8	11
SGND	12
OUT_9	13
OUT_10	14
OUT_11	15
SGND	16
OUT_A1	17
OUT_B1	18
OUT_C1	19
OUT_D1	20
OUT_E1	21
SGND	22
OUT_CLK1	23
OUT_LA1	24
OUT_OE1	25
SGND	26

JP2 (CON26)

Signal	Pin
OUT_12	1
OUT_13	2
OUT_14	3
D_2	4
OUT_15	5
OUT_16	6
OUT_17	7
SGND	8
OUT_18	9
OUT_19	10
OUT_20	11
SGND	12
OUT_21	13
OUT_22	14
OUT_23	15
SGND	16
OUT_A2	17
OUT_B2	18
OUT_C2	19
OUT_D2	20
OUT_E2	21
SGND	22
OUT_CLK2	23
OUT_LA2	24
OUT_OE2	25
SGND	26

JP3 (CON26)

Signal	Pin
OUT_24	1
OUT_25	2
OUT_26	3
D_3	4
OUT_27	5
OUT_28	6
OUT_29	7
SGND	8
OUT_30	9
OUT_31	10
OUT_32	11
SGND	12
OUT_33	13
OUT_34	14
OUT_35	15
SGND	16
OUT_A3	17
OUT_B3	18
OUT_C3	19
OUT_D3	20
OUT_E3	21
SGND	22
OUT_CLK3	23
OUT_LA3	24
OUT_OE3	25
SGND	26

JP4 (CON26)

Signal	Pin
OUT_36	1
OUT_37	2
OUT_38	3
D_4	4
OUT_39	5
OUT_40	6
OUT_41	7
SGND	8
OUT_42	9
OUT_43	10
OUT_44	11
SGND	12
OUT_45	13
OUT_46	14
OUT_47	15
SGND	16
OUT_A4	17
OUT_B4	18
OUT_C4	19
OUT_D4	20
OUT_E4	21
SGND	22
OUT_CLK4	23
OUT_LA4	24
OUT_OE4	25
SGND	26

JP5 (CON26)

Signal	Pin
OUT_48	1
OUT_49	2
OUT_50	3
D_5	4
OUT_51	5
OUT_52	6
OUT_53	7
SGND	8
OUT_54	9
OUT_55	10
OUT_56	11
SGND	12
OUT_57	13
OUT_58	14
OUT_59	15
SGND	16
OUT_A5	17
OUT_B5	18
OUT_C5	19
OUT_D5	20
OUT_E5	21
SGND	22
OUT_CLK5	23
OUT_LA5	24
OUT_OE5	25
SGND	26

JP6 (CON26)

Signal	Pin
OUT_60	1
OUT_61	2
OUT_62	3
D_6	4
OUT_63	5
OUT_64	6
OUT_65	7
SGND	8
OUT_66	9
OUT_67	10
OUT_68	11
SGND	12
OUT_69	13
OUT_70	14
OUT_71	15
SGND	16
OUT_A6	17
OUT_B6	18
OUT_C6	19
OUT_D6	20
OUT_E6	21
SGND	22
OUT_CLK6	23
OUT_LA6	24
OUT_OE6	25
SGND	26

JP7 (CON26)

Signal	Pin
OUT_72	1
OUT_73	2
OUT_74	3
D_7	4
OUT_75	5
OUT_76	6
OUT_77	7
SGND	8
OUT_78	9
OUT_79	10
OUT_80	11
SGND	12
OUT_81	13
OUT_82	14
OUT_83	15
SGND	16
OUT_A7	17
OUT_B7	18
OUT_C7	19
OUT_D7	20
OUT_E7	21
SGND	22
OUT_CLK7	23
OUT_LA7	24
OUT_OE7	25
SGND	26

JP8 (CON26)

Signal	Pin
OUT_84	1
OUT_85	2
OUT_86	3
D_8	4
OUT_87	5
OUT_88	6
OUT_89	7
SGND	8
OUT_90	9
OUT_91	10
OUT_92	11
SGND	12
OUT_93	13
OUT_94	14
OUT_95	15
SGND	16
OUT_A8	17
OUT_B8	18
OUT_C8	19
OUT_D8	20
OUT_E8	21
SGND	22
OUT_CLK8	23
OUT_LA8	24
OUT_OE8	25
SGND	26

JP1–JP12 PIN Definition –

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

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	U4	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℃ – 70℃
	Operating Humidity	10%RH–90%RH
Storage Environment	Temperature	–25°C $\sim$ 125°C
Dimensions	144.02mmX91.19mm	
Net Weight	110g	
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.

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