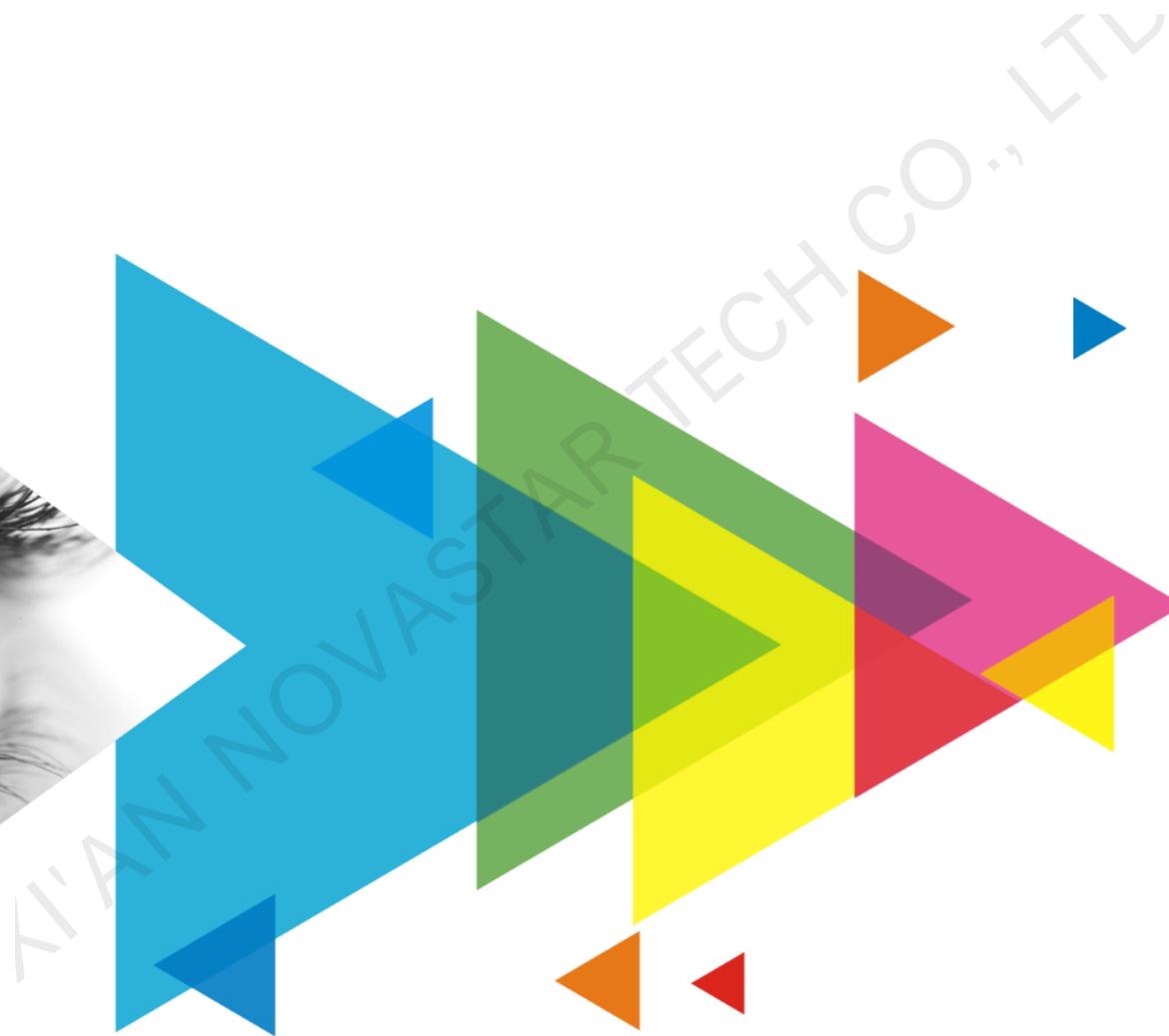


MRV332

Receiving Card

V1.0.1 NS110100904



Specifications

Change History

Document Version	Firmware Version	Release Date	Description
V1.0.1	V4.6.0.0	2019-10-31	None
V1.0.0	/	2016-01-18	First release

Introduction

MRV332 is a general receiving card developed by NovaStar. A single MRV332 loads up to 256×226 pixels. With various functions such as 12-bit precision pixel level brightness and chroma calibration, and 3D, the MRV332 can greatly improve the display effect and user experience.

The MRV332 uses HUB connectors, resulting in high stability and reliability. It supports up to 24 sets of parallel RGB data or 64 sets of serial data. Thanks to its EMC compliant hardware design, the MRV332 has improved electromagnetic compatibility and is suitable to many applications.

Features

Improvements to Display Effect

- Pixel level brightness and chroma calibration
Working with NovaLCT and NovaCLB, the receiving card supports 12-bit precision brightness and chroma calibration on each LED, which can effectively remove color discrepancies and greatly improve LED display brightness and chroma consistency, allowing for better image quality.
- Quick seam correction
Working with NovaLCT, the receiving card supports quick adjustment of bright and dark lines caused by splicing of cabinets and modules. This function is easy to use and the adjustment can take effect immediately.
- 3D function
Working with the independent controller which supports 3D function, users can enable the 3D function in NovaLCT or on operation panel of the controller, and set 3D parameters to allow for 3D display effects.

Improvements to Maintainability

- One-click application of calibration coefficients saved in module Flash
In the event of network outage, users can hold down the self-test button to read the calibration coefficients in module Flash back to the receiving card.
- Setting of pre-stored image on receiving card
In NovaLCT, a specified image can be set as the LED screen startup image or as the image to be displayed on LED screen when the Ethernet cable is disconnected or no video signal is available.
- Voltage and temperature monitoring

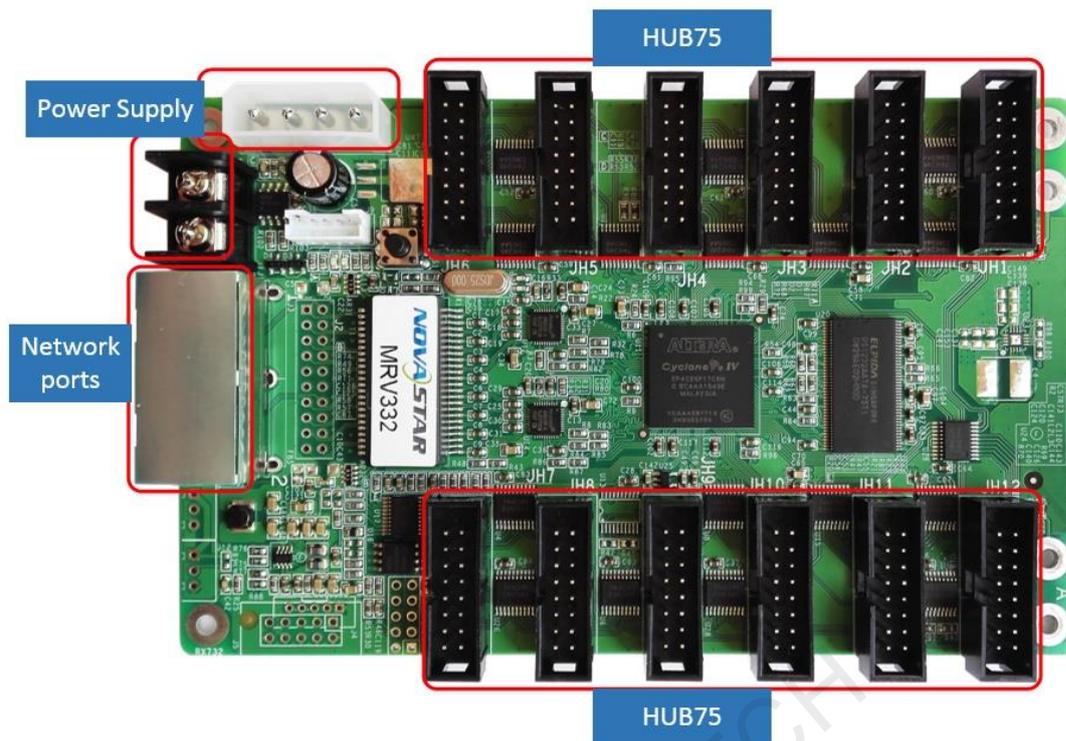
The voltage and temperature of the receiving card can be monitored without using peripherals. The monitoring data can be checked in NovaLCT.

- Cabinet LCD
The receiving card supports LCD of cabinet. The LCD can display temperature, voltage, single operating time and total operating time of the receiving card.
- Bit error rate monitoring
The receiving card can work with NovaLCT (V5.2.0 or later) to monitor the network communication quality between sending device and receiving card, or between receiving cards, and record the number of errors to help troubleshoot network communication problems.
- Readback of configuration parameters
In NovaLCT, the receiving card configuration parameters can be read back and saved to local computer.

Improvements to Reliability

- Status monitoring of dual power supplies
The receiving card supports dual power supplies and can detect whether their working statuses are normal.
- Loop backup
The receiving card can improve the reliability for cascading of receiving cards through main and backup redundant mechanism. If either main or backup cascading lines fail, the other will begin to work to ensure uninterrupted operation of the display.
- Dual backup of program
Two copies of application programs are saved in the receiving card at the factory to avoid the problem that the receiving card may get stuck due to program update exception.

Appearance



All product pictures shown in this document are for illustration purpose only. Actual product may vary.

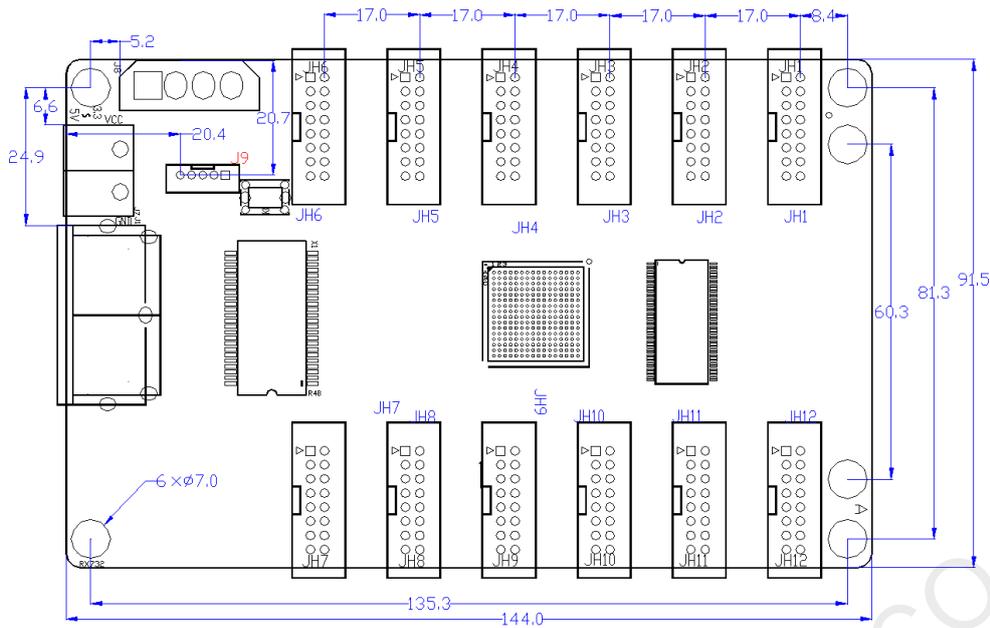
J9 definition

1	2	3	4	5
STA_LED	LED +/3.3V	PWR_LED -	KEY +	KEY -/GND

Indicator Status

Indicator	Status	Description
Status indicator (Green)	Flashing every other 1s	Receiving card is functioning normally. Ethernet cable connection is normal, and video source input is available.
	Flashing every other 3s	Receiving card is functioning normally, but Ethernet cable connection is abnormal.
	Flashing 3 times every other 1s	Receiving card is functioning normally. Ethernet cable connection is normal, but no video source input is available.
	Flashing every other 0.5s	Program loading fails in normal operating state, currently loading backup operating program.
	Flashing 8 times every other 1s	Sending card's backup Ethernet port is now active. Receiving card is functioning normally.
Power indicator (Red)	Always on	It is always on after the power is supplied.

Dimensions



Unit: mm

Pins

<table border="1"> <tr><td>GND</td><td>16</td><td>15</td><td>OE1</td></tr> <tr><td>LAT1</td><td>14</td><td>13</td><td>DCLK1</td></tr> <tr><td>D1</td><td>12</td><td>11</td><td>C1</td></tr> <tr><td>B1</td><td>10</td><td>9</td><td>A1</td></tr> <tr><td>E1</td><td>8</td><td>7</td><td>B2</td></tr> <tr><td>G2</td><td>6</td><td>5</td><td>R2</td></tr> <tr><td>GND</td><td>4</td><td>3</td><td>B1</td></tr> <tr><td>G1</td><td>2</td><td>1</td><td>R1</td></tr> </table> <p>HEADER8X2</p>	GND	16	15	OE1	LAT1	14	13	DCLK1	D1	12	11	C1	B1	10	9	A1	E1	8	7	B2	G2	6	5	R2	GND	4	3	B1	G1	2	1	R1	<table border="1"> <tr><td>GND</td><td>16</td><td>15</td><td>OE2</td></tr> <tr><td>LAT2</td><td>14</td><td>13</td><td>DCLK2</td></tr> <tr><td>D2</td><td>12</td><td>11</td><td>C2</td></tr> <tr><td>B2</td><td>10</td><td>9</td><td>A2</td></tr> <tr><td>E2</td><td>8</td><td>7</td><td>B4</td></tr> <tr><td>G4</td><td>6</td><td>5</td><td>R4</td></tr> <tr><td>GND</td><td>4</td><td>3</td><td>B3</td></tr> <tr><td>G3</td><td>2</td><td>1</td><td>R3</td></tr> </table> <p>HEADER8X2</p>	GND	16	15	OE2	LAT2	14	13	DCLK2	D2	12	11	C2	B2	10	9	A2	E2	8	7	B4	G4	6	5	R4	GND	4	3	B3	G3	2	1	R3	<table border="1"> <tr><td>GND</td><td>16</td><td>15</td><td>OE3</td></tr> <tr><td>LAT3</td><td>14</td><td>13</td><td>DCLK3</td></tr> <tr><td>D3</td><td>12</td><td>11</td><td>C3</td></tr> <tr><td>B3</td><td>10</td><td>9</td><td>A3</td></tr> <tr><td>E3</td><td>8</td><td>7</td><td>B6</td></tr> <tr><td>G6</td><td>6</td><td>5</td><td>R6</td></tr> <tr><td>GND</td><td>4</td><td>3</td><td>B5</td></tr> <tr><td>G5</td><td>2</td><td>1</td><td>R5</td></tr> </table> <p>HEADER8X2</p>	GND	16	15	OE3	LAT3	14	13	DCLK3	D3	12	11	C3	B3	10	9	A3	E3	8	7	B6	G6	6	5	R6	GND	4	3	B5	G5	2	1	R5
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PIN

1	R1	G1	2
3	B1	GND	4
5	R2	G2	6
7	B2	E1	8
9	A1	B1	10
11	C1	D1	12
13	DCLK1	LAT1	14
15	OE1	GND	16

Specifications

Electrical Specifications	Input voltage	DC 3.3 V–5.0 V
	Rated current	0.5 A
	Rated power consumption	2.5 W
Operating Environment	Temperature	-20°C to +70°C
	Humidity	10% RH to 90% RH, non-condensing
Storage Environment	Temperature	-25°C to +125°C
	Humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	144.0 mm × 91.5 mm × 18.3 mm
Packing Information	Packing specifications	An antistatic bag and anti-collision foam are provided for each receiving card. Each packing box contains 100 receiving cards.
	Packing box dimensions	650.0 mm × 500.0 mm × 200.0 mm
Certifications	RoHS	

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