

# MRV366

## Receiving Card

V1.2.0

NS110100898



Specifications

## Change History

Document Version	Firmware Version	Release Date	Description
V1.2.0	V4.6.1.0	2019-10-31	<ul style="list-style-type: none"> <li>Added the description of 1/64 scan display.</li> <li>Added the function of individual Gamma adjustment for RGB.</li> </ul>

## Introduction

The MRV366 is a general receiving card that supports up to 1/64 scan. A single MRV366 loads up to 512×256 pixels (8bit) or 256×256 pixels (10bit/12bit). With various highlights such as 12-bit precision pixel level brightness and chroma calibration and individual Gamma adjustment for RGB, the MRV366 can greatly improve the display effect and user experience.

The MRV366 uses standard HUB75 connectors for communication, resulting in high stability and reliability. It supports up to 32 sets of parallel RGB data. Thanks to its EMC compliant hardware design, the MRV366 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 takes effect immediately.
- 3D function**  
 When the receiving card works 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.
- Individual Gamma adjustment for RGB**  
 Working with NovaLCT (V5.2.0 or later) and the independent controller which supports this function, the receiving card supports individual adjustment of red Gamma, green Gamma and blue Gamma, which can effectively control image non-uniformity under low grayscale and white balance offset, allowing for a more realistic image.

### Improvements to Maintainability

- Mapping function**  
 After the Mapping function is enabled in NovaLCT, each of the target cabinets will display the receiving card number and Ethernet port information, allowing users to easily obtain the location and wiring route of receiving cards.
- 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 the LCD connected to the 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 erroneous packets to help troubleshoot network communication problems.
- Readback of firmware program**  
 In NovaLCT (V5.2.0 or later), the receiving card firmware program can be read back and saved to local computer.
- Readback of configuration parameters**  
 In NovaLCT, the receiving card configuration parameters can be read back and saved to local computer.

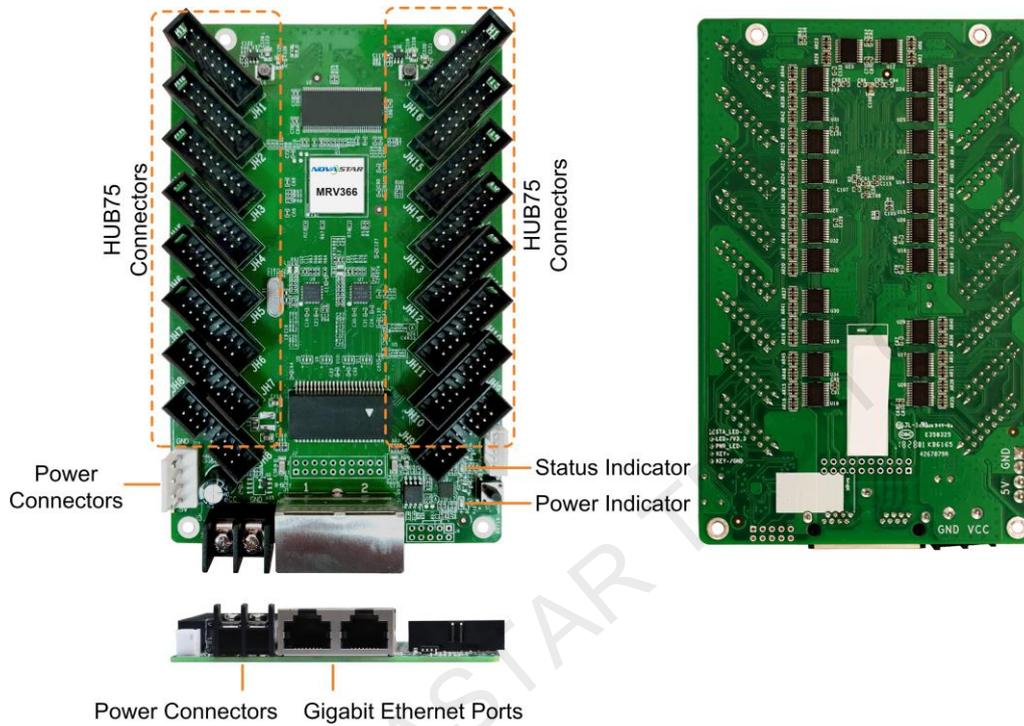
## Improvements to Reliability

- 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

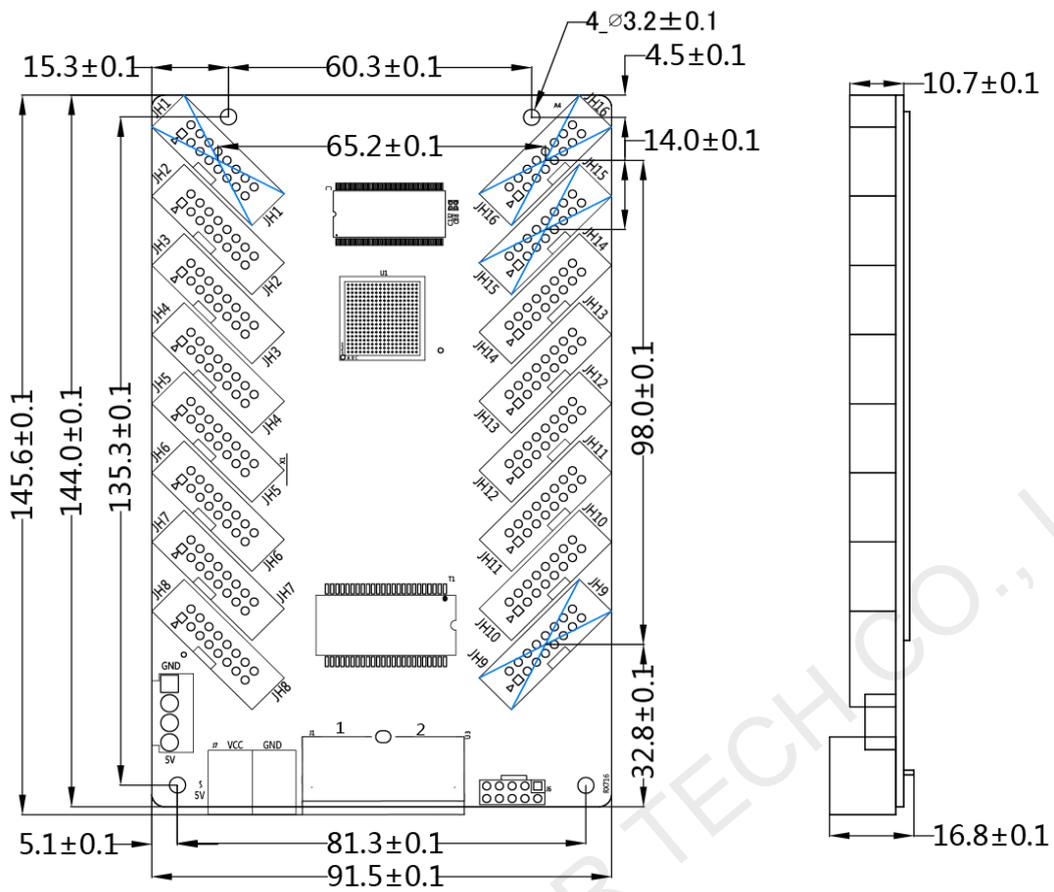


All product pictures shown in this document are for illustration purpose only. Actual product may vary.

## 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 0.2s	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

**JH1**

GND	18	16	15	HOE1
HLAT1	14	14	13	HDCLK1
HD1	12	12	11	HC1
HB1	10	10	9	HA1
HE1	8	8	7	B2
G2	6	6	5	R2
GND	4	4	3	B1
G1	2	2	1	R1

**JH2**

GND	18	16	15	HOE2
HLAT2	14	14	13	HDCLK2
HD1	12	12	11	HC1
HB1	10	10	9	HA1
HE1	8	8	7	B4
G4	6	6	5	R4
GND	4	4	3	B3
G3	2	2	1	R3

**JH3**

GND	18	16	15	HOE3
HLAT3	14	14	13	HDCLK3
HD2	12	12	11	HC2
HB2	10	10	9	HA2
HE2	8	8	7	B8
G6	6	6	5	R6
GND	4	4	3	B5
G5	2	2	1	R5

**JH4**

GND	18	16	15	HOE4
HLAT4	14	14	13	HDCLK4
HD2	12	12	11	HC2
HB2	10	10	9	HA2
HE2	8	8	7	B8
G8	6	6	5	R8
GND	4	4	3	B7
G7	2	2	1	R7

**JH5**

GND	18	16	15	HOE5
HLAT5	14	14	13	HDCLK5
HD3	12	12	11	HC3
HB3	10	10	9	HA3
HE3	8	8	7	B10
G10	6	6	5	R10
GND	4	4	3	B9
G9	2	2	1	R9

**JH6**

GND	18	16	15	HOE8
HLAT6	14	14	13	HDCLK6
HD3	12	12	11	HC3
HB3	10	10	9	HA3
HE3	8	8	7	B12
G12	6	6	5	R12
GND	4	4	3	B11
G11	2	2	1	R11

**JH7**

GND	18	16	15	HOE7
HLAT7	14	14	13	HDCLK7
HD4	12	12	11	HC4
HB4	10	10	9	HA4
HE4	8	8	7	B14
G14	6	6	5	R14
GND	4	4	3	B13
G13	2	2	1	R13

**JH8**

GND	18	16	15	HOE8
HLAT8	14	14	13	HDCLK8
HD4	12	12	11	HC4
HB4	10	10	9	HA4
HE4	8	8	7	B16
G16	6	6	5	R16
GND	4	4	3	B15
G15	2	2	1	R15

**JH9**

GND	18	16	15	HOE9
HLAT9	14	14	13	HDCLK9
HD5	12	12	11	HC5
HB5	10	10	9	HA5
HE5	8	8	7	B18
G18	6	6	5	R18
GND	4	4	3	B17
G17	2	2	1	R17

**JH10**

GND	18	16	15	HOE10
HLAT10	14	14	13	HDCLK10
HD5	12	12	11	HC5
HB5	10	10	9	HA5
HE5	8	8	7	B20
G20	6	6	5	R20
GND	4	4	3	B19
G19	2	2	1	R19

**JH11**

GND	18	16	15	HOE11
HLAT11	14	14	13	HDCLK11
HD6	12	12	11	HC6
HB6	10	10	9	HA6
HE6	8	8	7	B22
G22	6	6	5	R22
GND	4	4	3	B21
G21	2	2	1	R21

**JH12**

GND	18	16	15	HOE12
HLAT12	14	14	13	HDCLK12
HD6	12	12	11	HC6
HB6	10	10	9	HA6
HE6	8	8	7	B24
G24	6	6	5	R24
GND	4	4	3	B23
G23	2	2	1	R23

**JH13**

GND	18	16	15	HOE13
HLAT13	14	14	13	HDCLK13
HD7	12	12	11	HC7
HB7	10	10	9	HA7
HE7	8	8	7	B26
G26	6	6	5	R26
GND	4	4	3	B25
G25	2	2	1	R25

**JH14**

GND	18	16	15	HOE14
HLAT14	14	14	13	HDCLK14
HD7	12	12	11	HC7
HB7	10	10	9	HA7
HE7	8	8	7	B28
G28	6	6	5	R28
GND	4	4	3	B27
G27	2	2	1	R27

**JH15**

GND	18	16	15	HOE15
HLAT15	14	14	13	HDCLK15
HD8	12	12	11	HC8
HB8	10	10	9	HA8
HE8	8	8	7	B30
G30	6	6	5	R30
GND	4	4	3	B29
G29	2	2	1	R29

**JH16**

GND	18	16	15	HOE16
HLAT16	14	14	13	HDCLK16
HD8	12	12	11	HC8
HB8	10	10	9	HA8
HE8	8	8	7	B32
G32	6	6	5	R32
GND	4	4	3	B31
G31	2	2	1	R31

Pins			
GND	16	15	HOE
HLAT	14	13	HDCLK
HD	12	11	HC
HB	10	9	HA
HE	8	7	B
G	6	5	R
GND	4	3	B
G	2	1	R

## Specifications

<b>Electrical Specifications</b>	Input voltage	DC 3.3 V–5.0 V
	Rated current	0.5 A
	Rated power consumption	2.5 W
<b>Operating Environment</b>	Temperature	–20°C to +70°C
	Humidity	10% RH to 90% RH, non-condensing
<b>Storage Environment</b>	Temperature	–25°C to +125°C
	Humidity	0% RH to 95% RH, non-condensing
<b>Physical Specifications</b>	Dimensions	145.6 mm × 91.5 mm × 17.2 mm
	Net weight	100.1 g
<b>Packing Information</b>	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
<b>Certifications</b>	RoHS, EMC Class A	

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