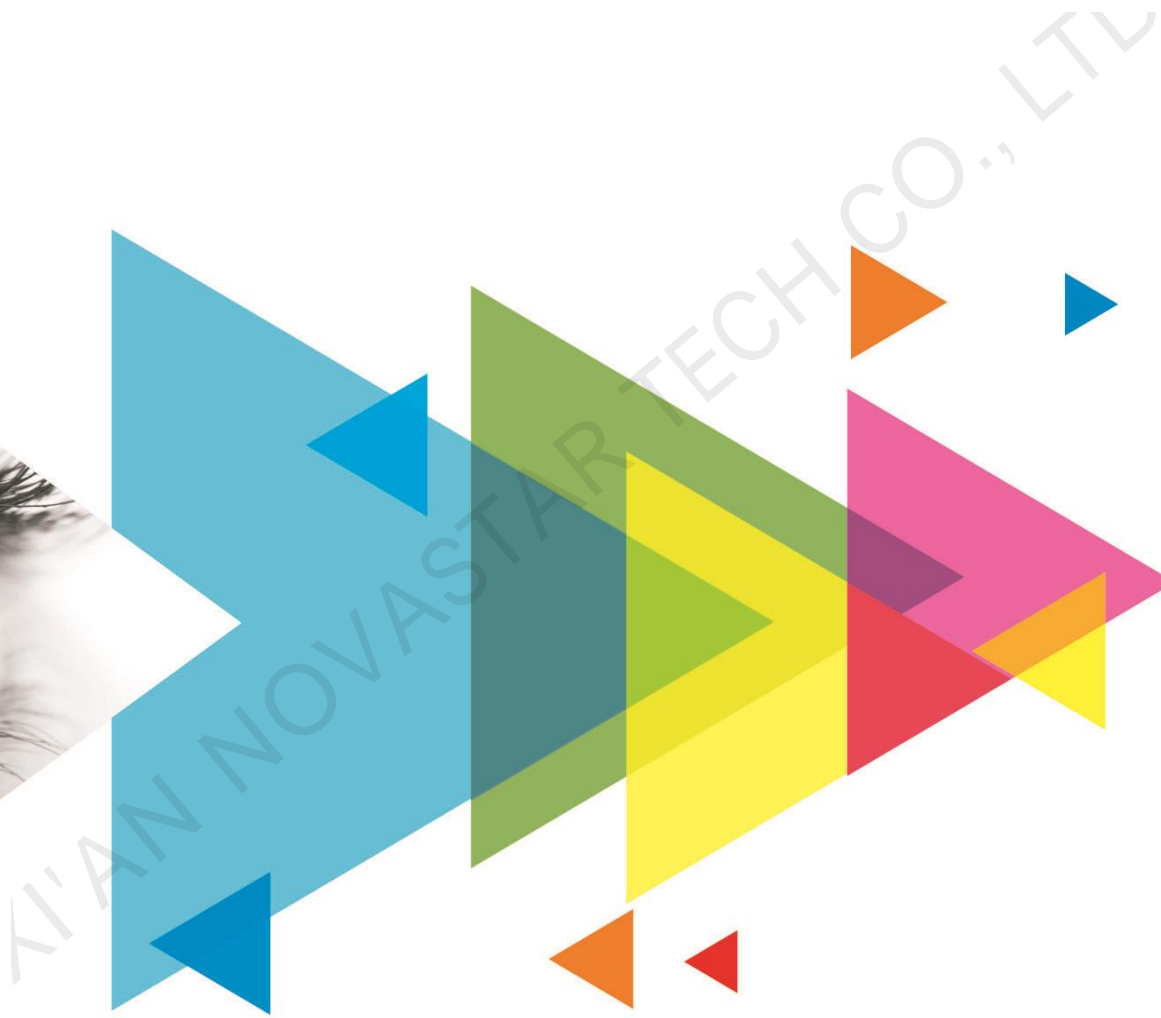


MRV266

Receiving Card

V1.1.0



Specifications

Change History

Document Version	Release Date	Description
V1.1.0	2020-09-11	<ul style="list-style-type: none"> • Updated the maximum loading capacity. • Optimized the feature description. • Optimized the legends in the appearance diagram. • Optimized the indicator description. • Optimized the dimensions diagram style.
V1.0.1	2019-10-30	Increased the version number only.
V1.0.0	2019-03-15	First release

Introduction

The MRV266 is a receiving card designed by NovaStar for fine-pitch LED screens. A single MRV266 loads up to 512×384 pixels (NovaLCT V5.3.0 or later required). Supporting various functions such as the brightness calibration, quick adjustment of dark or bright lines, 3D, and individual Gamma adjustment for RGB, the MRV266 can greatly improve the display effect and user experience.

The MRV266 uses 6 HUB320 (26 pins) connectors for communication, resulting in high stability. It supports up to 24 groups of parallel RGB data and is suitable to various on-site setups.

Features

Improvements to Display Effect

- **Brightness calibration**
Working with NovaLCT and NovaCLB, the receiving card supports brightness calibration on each LED, which can greatly improve LED display brightness consistency, allowing for better image quality.
- **Quick adjustment of dark or bright lines**
The dark or bright lines caused by splicing of modules and cabinets can be adjusted to improve the visual experience. The adjustment can be easily made and takes effect immediately.
- **3D function**
Working with the sending card that supports 3D function, the receiving card supports 3D image output.
- **Individual Gamma adjustment for RGB**
Working with NovaLCT (V5.2.0 or later) and the sending card that 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**
The cabinets display the receiving card number and Ethernet port information, allowing users to easily obtain the locations and connection topology of receiving cards.
- **Temperature and voltage monitoring**
The temperature and voltage of the receiving card can be monitored without using peripherals.
- **Cabinet LCD**
The LCD module connected to the cabinet can display the temperature, voltage, single run time and total run time of the receiving card.
- **Bit error rate monitoring**
The Ethernet port communication quality of the receiving card can be monitored and the number of erroneous packets can be recorded to help troubleshoot network communication problems. NovaLCT V5.2.0 or later is required.
- **Firmware program readback**
The receiving card firmware program can be read back and saved to the local computer. NovaLCT V5.2.0 or later is required.
- **Configuration parameter readback**
The receiving card configuration parameters can be read back and saved to the local computer.

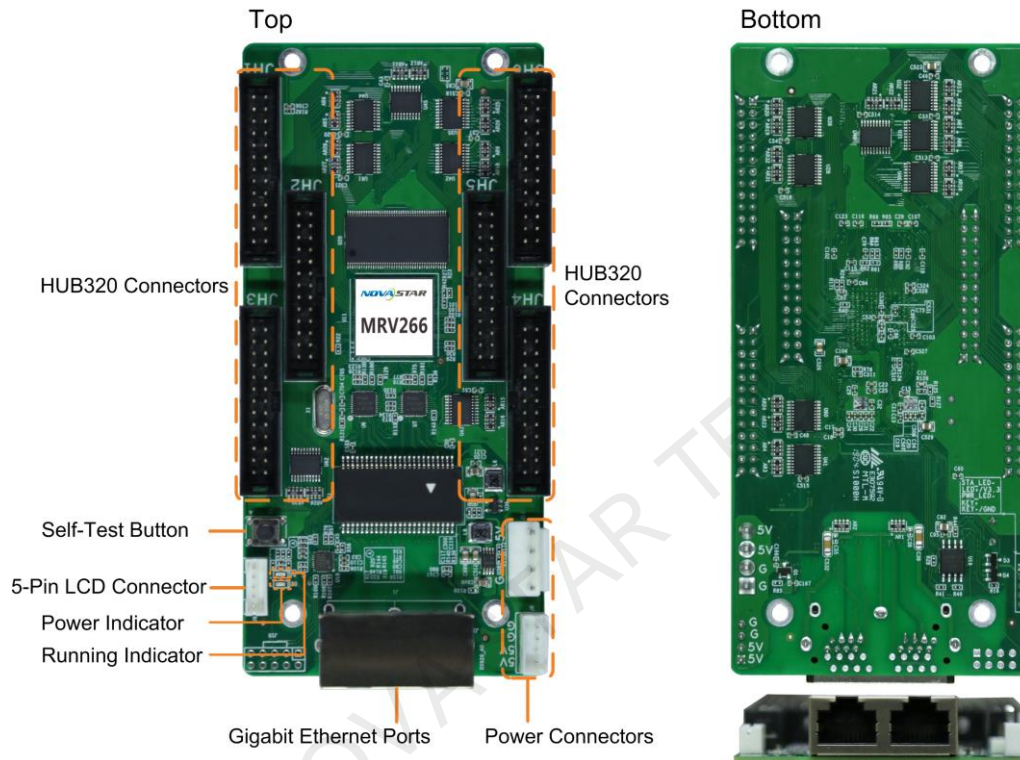
Improvements to Reliability

- Loop backup
The receiving card and sending card form a loop via the main and backup line connections. If a fault occurs at a location of the lines, the screen can still display the image normally.
- Dual backup of configuration parameters
The receiving card configuration parameters are stored in the application area and factory area of

the receiving card at the same time. Users usually use the configuration parameters in the application area. If necessary, users can restore the configuration parameters in the factory area to the application area.

- Dual backup of the application program
Two copies of the application program are stored in the receiving card at the factory to avoid the problem that the receiving card may get stuck due to program update exception.

Appearance



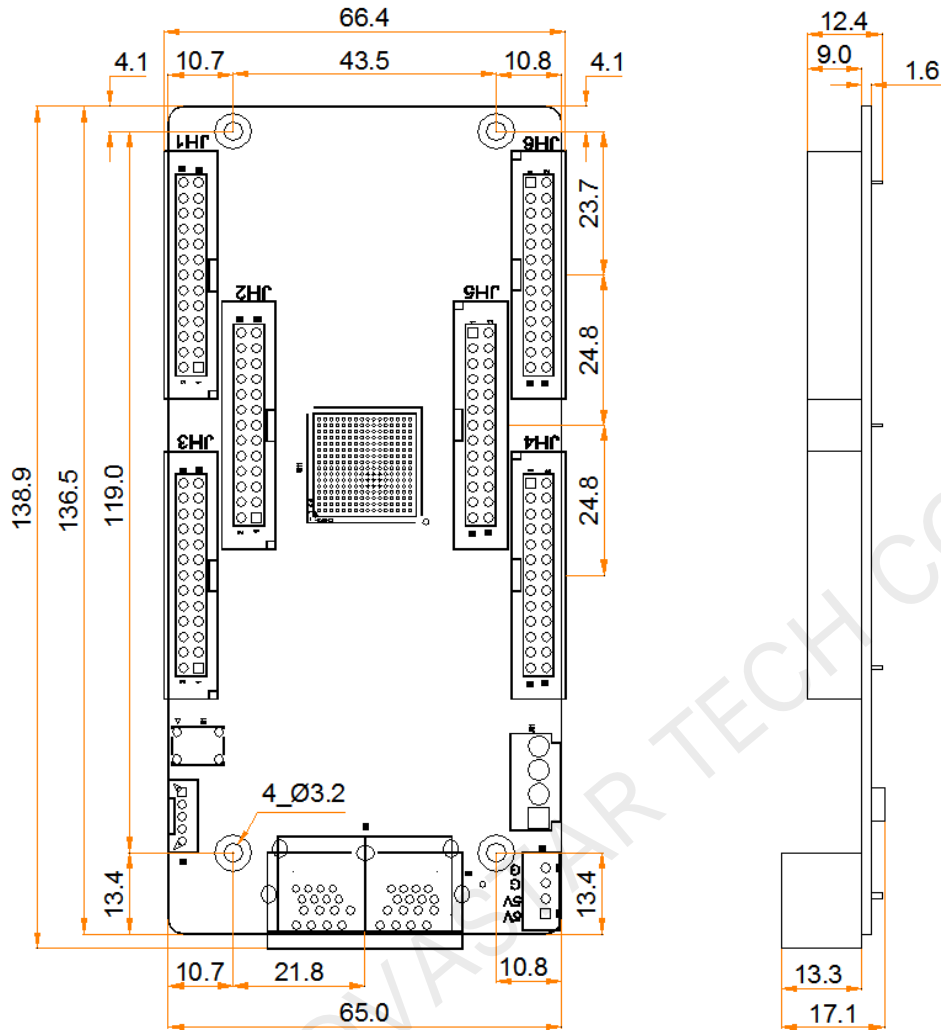
All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Indicators

Indicator	Color	Status	Description
Running indicator	Green	Flashing once every 1s	The receiving card is functioning normally. Ethernet cable connection is normal, and video source input is available.
		Flashing once every 3s	Ethernet cable connection is abnormal.
		Flashing 3 times every 1s	Ethernet cable connection is normal, but no video source input is available.
		Flashing once every 0.5s	The receiving card failed to load the program in the application area and now is using the backup program.
		Flashing 8 times every 1s	A redundancy switchover occurred on the Ethernet port and the loop backup has taken effect.
Power indicator	Red	Always on	The power supply is normal.

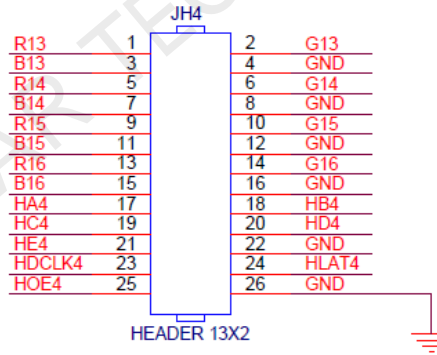
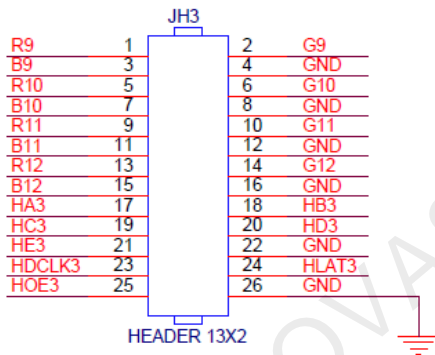
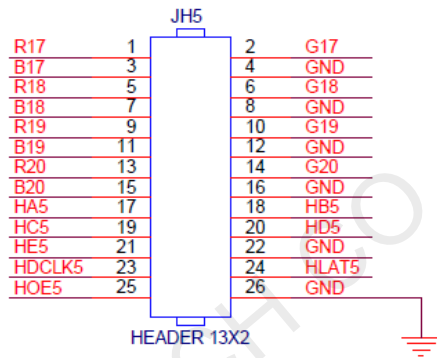
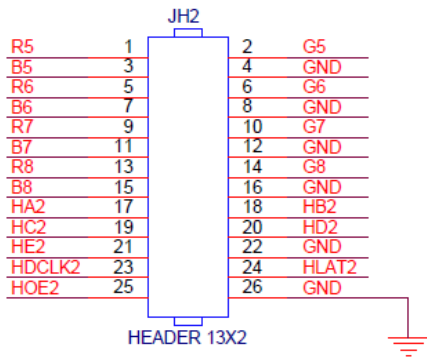
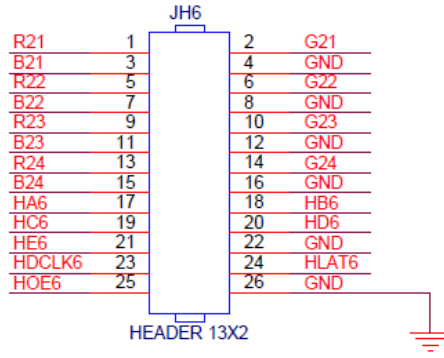
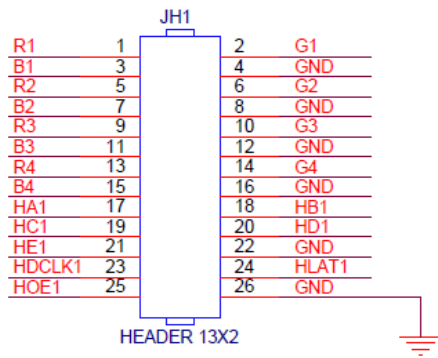
Dimensions

The board thickness is not greater than 2.0 mm, and the total thickness (board thickness + thickness of components on the top and bottom sides) is not greater than 17.5 mm. Ground connection (GND) is enabled for mounting holes.



Tolerance: ± 0.1 Unit: mm

Pins



Pin Definitions						
/	R	1	2	G	/	
/	B	3	4	GND	Ground	
/	R	5	6	G	/	
/	B	7	8	GND	Ground	
/	R	9	10	G	/	
/	B	11	12	GND	Ground	
/	R	13	14	G	/	
/	B	15	16	GND	Ground	
Line decoding signal	HA	17	18	HB	Line decoding signal	
Line decoding signal	HC	19	20	HD	Line decoding signal	
Line decoding signal	HE	21	22	GND	Ground	
Shift clock	DCLK	23	24	LAT	Latch signal	
Display enable	OE	25	26	GND	Ground	

Specifications

Maximum Loading Capacity	PWM IC: 512 x 384 pixels	
	Common IC: 384 x 256 pixels	
Electrical	Input voltage	DC 3.3 V to 5.5 V

Specifications	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	138.9 mm × 66.4 mm × 17.1 mm
	Net weight	68.0 g
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	

The amount of current and power consumption may vary depending on factors such as product settings, usage, and environment.

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