

MRV532

Receiving Card



Specifications

Change History

Document Version	Release Date	Description
V1.2.0	2025-05-20	<ul style="list-style-type: none">• Added free image rotation, smart module, calibration coefficient management, upload calibration coefficients, and cabinet LCD to product features.• Updated the load capacity information.• Updated the appearance diagram.• Removed notes for LCD-related features.
V1.1.2	2025-03-20	<ul style="list-style-type: none">• Updated the load capacity information.• Updated the dimensions diagram.• Updated the storage environment temperature range.• Updated the packing Information.
V1.1.1	2024-10-22	<ul style="list-style-type: none">• Added the certification information.• Added support for multi-batch adjustment.• Added a note for LCD-related features.• Updated the load capacity information.
V1.1.0	2024-09-15	<ul style="list-style-type: none">• Added features such as color management, 18bit+, HDR, and individual gamma adjustment for RGB.• Updated the load capacity information.• Deleted seam brightness correction.
V1.0.2	2024-05-23	<ul style="list-style-type: none">• Added descriptions for line decoding signal.• Updated the load capacity information.

Introduction

The MRV532 is a receiving card developed by Xi'an NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar). Supporting various functions such as Color Management, 18bit+, HDR, Pixel Level Brightness and Chroma Calibration, Quick Adjustment of Dark or Bright Lines, Multi-batch Adjustment, Low Latency, 3D, Individual Gamma Adjustment for RGB, 90° Image Rotation, and Free Image Rotation, the MRV532 can significantly improve the display effect and user experience. Additionally, the product supports flash management for the module, allowing for the storage and readback of calibration coefficients and module IDs as needed.

The MRV532 uses 10 standard HUB320F connectors to ensure highly stable communication, supporting up to 40 groups of RGB real pixel data, 40 groups of 3-LED dynamic sub-pixel data, or 30 groups of 4-LED dynamic sub-pixel data.

- For PWM driver ICs, the maximum load capacity per card is:
 - 512×512@60Hz (For 8bit video sources)
 - 512×256@60Hz (For 10bit and 12bit video sources)
- For common driver ICs, the maximum load capacity per card is:
 - 512×384@60Hz (For 8bit video sources)
 - 256×256@60Hz (For 10bit and 12bit video sources)

Certifications

RoHS, EMC Class A.

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or address the problem.

Otherwise, the customer shall be responsible for the legal risks caused or NovaStar has the right to claim compensation.

Features

Improvements to Display Effect

- Color Management

Support standard (Rec.709 / DCI-P3 / Rec.2020) and custom color gamuts, enabling more precise colors on the screen.
- 18bit+

Improve the LED display grayscale by 4 times to avoid grayscale loss due to low brightness and allow for a smoother image.
- HDR
 - Support HDR10 and comply with the SMPTE ST 2084 and SMPTE ST 2086 standards.
 - Support HLG.
- Pixel Level Brightness and Chroma Calibration

Work with NovaStar's calibration system to calibrate the brightness and chroma of each pixel, effectively eliminating differences and enabling high consistency for both brightness and chroma.

- Quick Adjustment of Dark or Bright Lines

The different brightness of seams caused by splicing of modules or cabinets can be corrected to improve the visual experience. The correction is easy and takes effect immediately.

- Multi-batch Adjustment

Adjust the brightness of cabinets or modules to minimize display discrepancies caused by variations in production batches.

- Low Latency

The latency of video source on the receiving card end can be reduced to 1 frame (only when using modules with driver IC with built-in RAM).

- 3D

Work with the controller that supports 3D function to enable 3D output.

- Individual Gamma Adjustment for RGB

Working with NovaLCT and the controller that supports this function, the receiving card supports individual adjustment to red gamma, green gamma and blue gamma, which can effectively control image non-uniformity at low grayscale conditions and white balance offset, allowing for a more realistic image.

- 90° Image Rotation

The display image can be rotated in multiples of 90° (0°/90°/180°/270°).

- Free Image Rotation

Support image rotation at any angle when using the dedicated MCTRL R5 controller and SmartLCT software.

Improvements to Maintainability

- Smart Module (dedicated firmware required)

Work with the smart module to support module ID management, storage of calibration coefficients and module parameters, monitoring of module temperature, voltage and flat cable communication status, and LED error detection

- Calibration Coefficient Management

The calibration coefficients can be uploaded, read back, saved to hardware, and erased.

- Automatic Module Calibration

After a new module with flash memory is installed to replace the old one, the calibration coefficients stored in the flash memory can be automatically uploaded to the receiving card when it is powered on, which ensures unchanged uniform display brightness and chroma.

- Module Auto Light-up (dedicated firmware required)

After a new module with flash memory is installed to replace the old one, the configuration file stored in the memory can be automatically uploaded to the receiving card when it is powered on. This ensures the module can be lighted up without issue.

- Uploading Calibration Coefficients

Upload calibration coefficients to the receiving card quickly or in a stable manner, with acceleration support if needed.

- Module Flash Management

For modules with flash memory, the information stored can be managed, allowing for the storage and readback of calibration coefficients and module IDs.

- One-click to Apply Calibration Coefficients in Module Flash

For modules with flash memory, when the Ethernet cable is disconnected, users can hold down the self-test button on the cabinet to upload the calibration coefficients in the memory of the module to the receiving card.

- Mapping 1.1

The cabinets can display the controller number, receiving card number, and Ethernet port information, allowing users to easily obtain the locations and connection topology of receiving cards.

- Settings of a Stored Image in the Receiving Card

The image displayed during startup, or displayed when the Ethernet cable is disconnected or there is no video signal can be customized.

- Temperature and Voltage Monitoring

Real-time monitoring of the temperature and voltage of the receiving card, without the need for other external devices.

- Cabinet LCD

The LCD module of the cabinet can display the temperature, voltage, single run time and total run time of the receiving card.

- Bit Error Detection

Real-time monitoring of the communication of the Ethernet port on the receiving card which helps users troubleshoot network communication problems.

- Firmware Program Readback

The receiving card firmware program can be read back and saved to the local computer.

- Configuration Parameter Readback

The receiving card configuration parameters can be read back and saved to the local computer.

Improvements to Reliability

- Dual NCP Backup

The NCP file is stored in the application area and factory area of the receiving card at the same time. Typically, the NCP file in the application area is used. However, during a factory reset, the NCP file can be retrieved from the factory area.

- Loop Backup

The receiving card and controller form a loop via the primary and backup line connections. When a fault occurs at a location of the lines, the screen can still display the image normally.

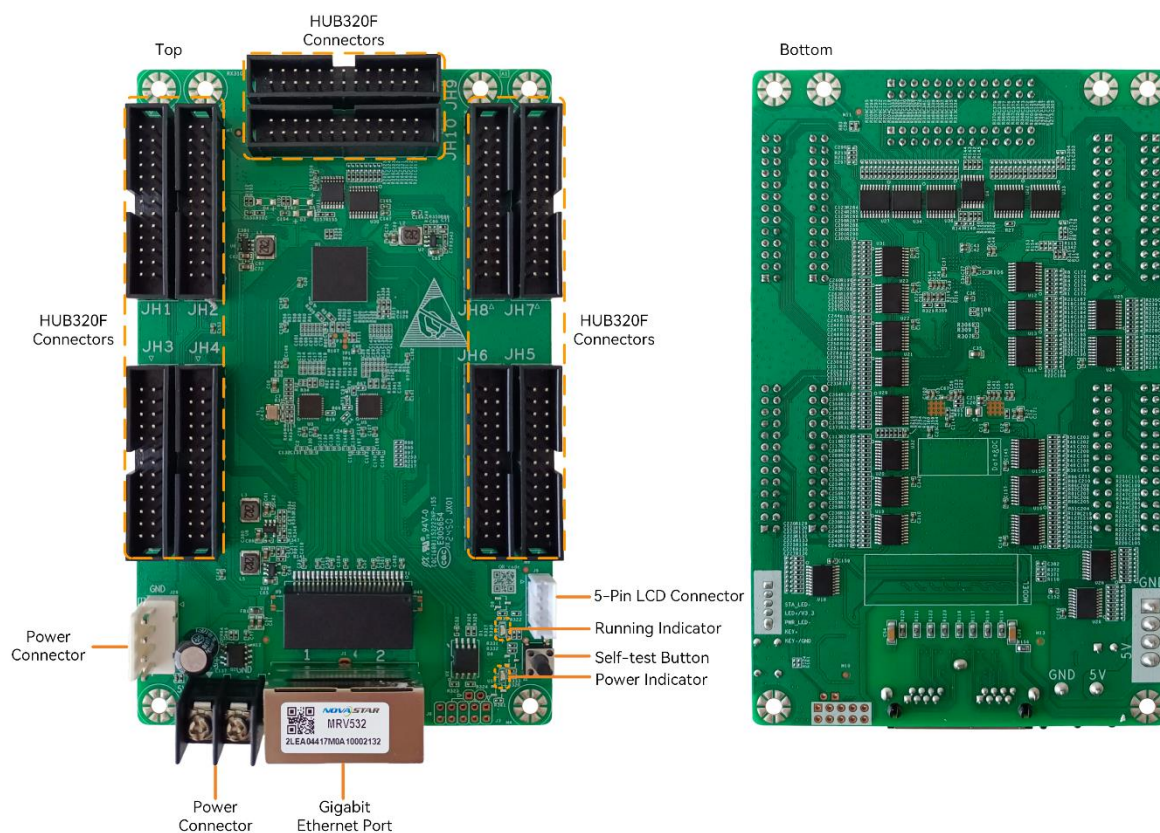
- Dual Backup of Configuration Parameters

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 Program Backup

Two copies of firmware program are stored in the receiving card at the factory to avoid the problem that the receiving card may get stuck abnormally during program update.

Appearance



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

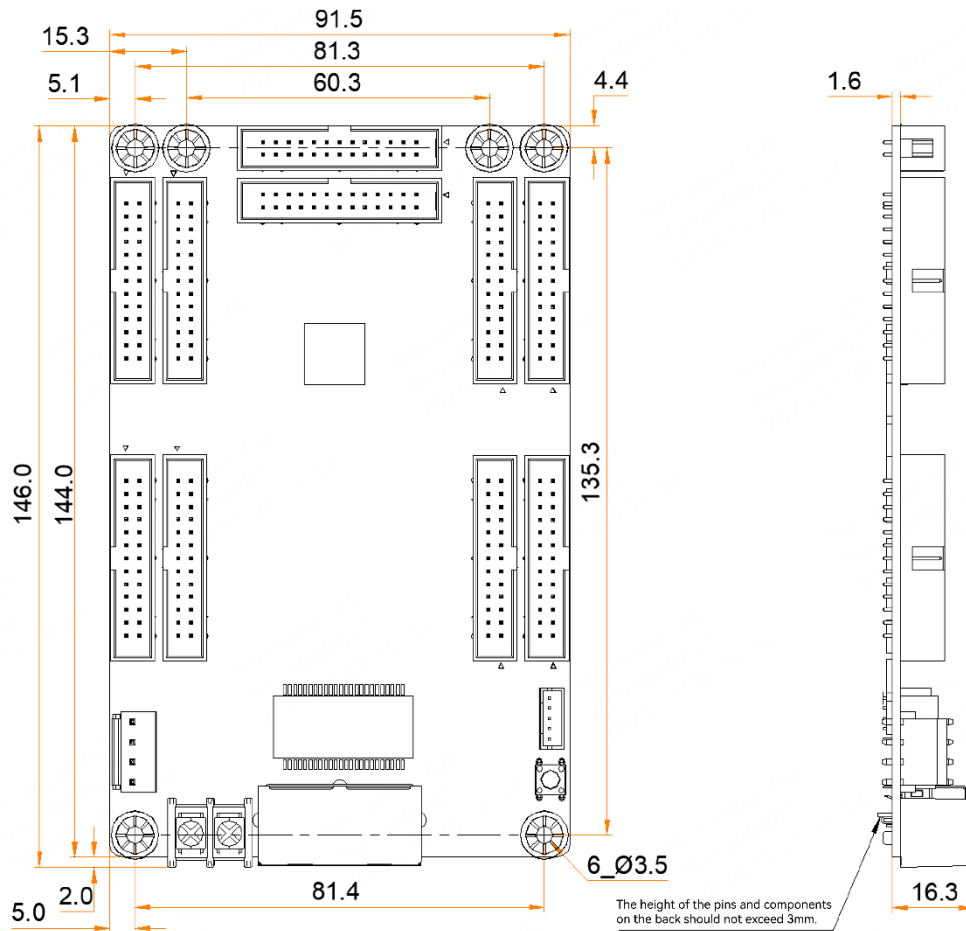
Name	Description
HUB320F Connectors	Connect to the module.
Power Connector	Connect to the input power. Either of the connectors can be chosen.
Gigabit Ethernet Ports	Connect to the sending card, and cascade other receiving cards. Each connector can be used as input or output.
Self-Test Button	Set the test pattern. After the Ethernet cable is disconnected, press the button twice, and the test pattern will be displayed on the screen. Press the button again to switch the pattern.
5-Pin LCD Connector	Connect to the LCD.

Indicator

Indicators	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 0.5s	Ethernet cable connection is normal, but video source input is unavailable.
		Flashing once every 0.2s	The receiving card failed to load the program in the application area and is now using the backup program.
		Flashing 8 times every 0.5s	A redundancy switchover occurred on the Ethernet port and the loop backup has taken effect.
Power indicator	Red	Always on	The power input 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 20.0 mm.



Tolerance: ± 0.3 Unit: mm

Note

To make molds or trepan mounting holes, please contact NovaStar for a higher-precision structural drawing.

Pins

Real Pixel RGB Data Pins/3-LED Sub-pixel Data Pins

J11				J12				J13				J14				J15			
1	2	G1		1	2	G5		1	2	G9		1	2	G13		1	2	G17	
B1 JACK_SPT_CLK1	3	4	Q1	B5 JACK_SPT_CLK3	3	4	Q5	B9 JACK_SPT_CLK5	3	4	Q9	B13 JACK_SPT_CLK7	3	4	Q13	B17 JACK_SPT_CLK9	3	4	Q17
B2	5	6	Q2	B6	5	6	Q6	B10	5	6	Q10	B14 JACK_SPT_CLK8	3	4	Q14	B18 JACK_SPT_CLK10	3	4	Q18
B3 JACK_SPT_MOSB1	7	8	Q3	B7 JACK_SPT_MOSB7	7	8	Q7	B11 JACK_SPT_MOSB9	7	8	Q11	B15 JACK_SPT_MOSB11	7	8	Q15	B19 JACK_SPT_MOSB13	7	8	Q19
B4	9	10	Q4	B8	9	10	Q8	B12	9	10	Q12	B16	9	10	Q16	B20	9	10	Q20
B5	11	12	Q5	B9	11	12	Q9	B13	11	12	Q13	B17	11	12	Q17	B21	11	12	Q21
B6	13	14	Q6	B10	13	14	Q10	B14	13	14	Q14	B18	13	14	Q18	B22	13	14	Q22
B7	15	16	Q7	B11	15	16	Q11	B15	15	16	Q15	B19	15	16	Q19	B23	15	16	Q23
B8	17	18	Q8	B12	17	18	Q12	B16	17	18	Q16	B20	17	18	Q20	B24	17	18	Q24
B9	19	20	Q9	B13	19	20	Q13	B17	19	20	Q17	B21	19	20	Q21	B25	19	20	Q25
B10	21	22	Q10	B14	21	22	Q14	B18	21	22	Q18	B22	21	22	Q22	B26	21	22	Q26
B11	23	24	Q11	B15	23	24	Q15	B19	23	24	Q19	B23	23	24	Q23	B27	23	24	Q27
B12	25	26	Q12	B16	25	26	Q16	B20	25	26	Q20	B24	25	26	Q24	B28	25	26	Q28
J16				J17				J18				J19				J20			
1	2	G21		1	2	G25		1	2	G29		1	2	G33		1	2	G37	
B21 JACK_SPT_CLK6	3	4	Q21	B25 JACK_SPT_CLK8	3	4	Q25	B29 JACK_SPT_CLK10	3	4	Q29	B33 JACK_SPT_CLK12	3	4	Q33	B37 JACK_SPT_CLK14	3	4	Q37
B22	5	6	Q22	B26	5	6	Q26	B30	5	6	Q30	B34 JACK_SPT_CLK11	3	4	Q34	B38 JACK_SPT_CLK13	3	4	Q38
B23 JACK_SPT_MOSB6	7	8	Q23	B27 JACK_SPT_MOSB8	7	8	Q27	B31 JACK_SPT_MOSB10	7	8	Q31	B35 JACK_SPT_MOSB13	7	8	Q35	B39 JACK_SPT_MOSB15	7	8	Q39
B24	9	10	Q24	B28	9	10	Q28	B32	9	10	Q32	B36	9	10	Q36	B40	9	10	Q40
B25	11	12	Q25	B29	11	12	Q29	B33	11	12	Q33	B37	11	12	Q37	B41	11	12	Q41
B26	13	14	Q26	B30	13	14	Q30	B34	13	14	Q34	B38	13	14	Q38	B42	13	14	Q42
B27	15	16	Q27	B31	15	16	Q31	B35	15	16	Q35	B39	15	16	Q39	B43	15	16	Q43
B28	17	18	Q28	B32	17	18	Q32	B36	17	18	Q36	B40	17	18	Q40	B44	17	18	Q44
B29	19	20	Q29	B33	19	20	Q33	B37	19	20	Q37	B41	19	20	Q41	B45	19	20	Q45
B30	21	22	Q30	B34	21	22	Q34	B38	21	22	Q38	B42	21	22	Q42	B46	21	22	Q46
B31	23	24	Q31	B35	23	24	Q35	B39	23	24	Q39	B43	23	24	Q43	B47	23	24	Q47
B32	25	26	Q32	B36	25	26	Q36	B40	25	26	Q40	B44	25	26	Q44	B48	25	26	Q48
J21				J22				J23				J24				J25			
1	2	G41		1	2	G45		1	2	G49		1	2	G53		1	2	G57	
B41 JACK_SPT_CLK11	3	4	Q41	B45 JACK_SPT_CLK13	3	4	Q45	B49 JACK_SPT_CLK15	3	4	Q49	B53 JACK_SPT_CLK17	3	4	Q53	B57 JACK_SPT_CLK19	3	4	Q57
B42	5	6	Q42	B46	5	6	Q46	B50	5	6	Q50	B54 JACK_SPT_CLK16	3	4	Q54	B58 JACK_SPT_CLK18	3	4	Q58
B43 JACK_SPT_MOSB11	7	8	Q43	B47 JACK_SPT_MOSB13	7	8	Q47	B51 JACK_SPT_MOSB15	7	8	Q51	B55 JACK_SPT_MOSB18	7	8	Q55	B59 JACK_SPT_MOSB20	7	8	Q59
B44	9	10	Q44	B48	9	10	Q48	B52	9	10	Q52	B56	9	10	Q56	B60	9	10	Q60
B45	11	12	Q45	B49	11	12	Q49	B53	11	12	Q53	B57	11	12	Q57	B61	11	12	Q61
B46	13	14	Q46	B50	13	14	Q50	B54	13	14	Q54	B58	13	14	Q58	B62	13	14	Q62
B47	15	16	Q47	B51	15	16	Q51	B55	15	16	Q55	B59	15	16	Q59	B63	15	16	Q63
B48	17	18	Q48	B52	17	18	Q52	B56	17	18	Q56	B60	17	18	Q60	B64	17	18	Q64
B49	19	20	Q49	B53	19	20	Q53	B57	19	20	Q57	B61	19	20	Q61	B65	19	20	Q65
B50	21	22	Q50	B54	21	22	Q54	B58	21	22	Q58	B62	21	22	Q62	B66	21	22	Q66
B51	23	24	Q51	B55	23	24	Q55	B59	23	24	Q59	B63	23	24	Q63	B67	23	24	Q67
B52	25	26	Q52	B56	25	26	Q56	B60	25	26	Q60	B64	25	26	Q64	B68	25	26	Q68
J26				J27				J28				J29				J30			
1	2	G61		1	2	G65		1	2	G69		1	2	G73		1	2	G77	
B61 JACK_SPT_CLK16	3	4	Q61	B65 JACK_SPT_CLK18	3	4	Q65	B69 JACK_SPT_CLK20	3	4	Q69	B73 JACK_SPT_CLK22	3	4	Q73	B77 JACK_SPT_CLK24	3	4	Q77
B62	5	6	Q62	B66	5	6	Q66	B70	5	6	Q70	B74 JACK_SPT_CLK21	3	4	Q74	B78 JACK_SPT_CLK23	3	4	Q78
B63 JACK_SPT_MOSB16	7	8	Q63	B67 JACK_SPT_MOSB18	7	8	Q67	B71 JACK_SPT_MOSB20	7	8	Q71	B75 JACK_SPT_MOSB23	7	8	Q75	B79 JACK_SPT_MOSB25	7	8	Q79
B64	9	10	Q64	B68	9	10	Q68	B72	9	10	Q72	B76	9	10	Q76	B80	9	10	Q80
B65	11	12	Q65	B69	11	12	Q69	B73	11	12	Q73	B77	11	12	Q77	B81	11	12	Q81
B66	13	14	Q66	B70	13	14	Q70	B74	13	14	Q74	B78	13	14	Q78	B82	13	14	Q82
B67	15	16	Q67	B71	15	16	Q71	B75	15	16	Q75	B79	15	16	Q79	B83	15	16	Q83
B68	17	18	Q68	B72	17	18	Q72	B76	17	18	Q76	B80	17	18	Q80	B84	17	18	Q84
B69	19	20	Q69	B73	19	20	Q73	B77	19	20	Q77	B81	19	20	Q81	B85	19	20	Q85
B70	21	22	Q70	B74	21	22	Q74	B78	21	22	Q78	B82	21	22	Q82	B86	21	22	Q86
B71	23	24	Q71	B75	23	24	Q75	B79	23	24	Q79	B83	23	24	Q83	B87	23	24	Q87
B72	25	26	Q72	B76	25	26	Q76	B80	25	26	Q80	B84	25	26	Q84	B88	25	26	Q88
J31				J32				J33				J34				J35			
1	2	G81		1	2	G85		1	2	G89		1	2	G93		1	2	G97	
B81 JACK_SPT_CLK21	3	4	Q81	B85 JACK_SPT_CLK23	3	4	Q85	B89 JACK_SPT_CLK25	3	4	Q89	B93 JACK_SPT_CLK27	3	4	Q93	B97 JACK_SPT_CLK29	3	4	Q97
B82	5	6	Q82	B86	5	6	Q86	B90	5	6	Q90	B94 JACK_SPT_CLK26	3	4	Q94	B98 JACK_SPT_CLK28	3	4	Q98
B83 JACK_SPT_MOSB21	7	8	Q83	B87 JACK_SPT_MOSB23	7	8	Q87	B91 JACK_SPT_MOSB25	7	8	Q91	B95 JACK_SPT_MOSB28	7	8	Q95	B99 JACK_SPT_MOSB30	7	8	Q99
B84	9	10	Q84	B88	9	10	Q88	B92	9	10	Q92	B96	9	10	Q96	B100	9	10	Q100
B85	11	12	Q85	B89	11	12	Q89	B93	11	12	Q93	B97	11	12	Q97	B101	11	12	Q101
B86	13	14	Q86	B90	13	14	Q90	B94	13	14	Q94	B98	13	14	Q98	B102	13	14	Q102
B87	15	16	Q87	B91	15	16	Q91	B95	15	16	Q95	B99	15	16	Q99	B103	15	16	Q103
B88	17	18	Q88	B92	17	18	Q92	B96	17	18	Q96	B100	17	18	Q100	B104	17	18	Q104
B89	19	20	Q89	B93	19	20	Q93	B97	19	20	Q97	B101	19	20	Q101	B105	19	20	Q105
B90	21	22	Q90	B94	21	22	Q94	B98	21	22	Q98	B102	21	22	Q102	B106	21	22	Q106
B91	23	24	Q91	B95	23	24	Q95	B99	23	24	Q99	B103	23	24	Q103	B107	23	24	Q107
B92	25	26	Q92	B96	25	26	Q96	B100	25	26	Q100	B104	25	26	Q104	B108	25	26	Q108
J36				J37				J38				J39				J40			
1	2	G101		1	2	G105		1	2	G109		1	2	G113		1	2	G117	
B101 JACK_SPT_CLK31	3	4	Q101	B105 JACK_SPT_CLK33	3	4	Q105	B109 JACK_SPT_CLK35	3	4	Q109	B113 JACK_SPT_CLK37	3	4	Q113	B117 JACK_SPT_CLK39	3	4	Q117
B102	5	6	Q102	B106	5	6	Q106	B110	5	6	Q110	B114 JACK_SPT_CLK36	3	4	Q114	B118 JACK_SPT_CLK38	3	4	Q118
B103 JACK_SPT_MOSB31	7	8	Q103	B107 JACK_SPT_MOSB33	7	8	Q107	B111 JACK_SPT_MOSB35	7	8	Q111	B115 JACK_SPT_MOSB38	7	8	Q115	B119 JACK_SPT_MOSB40	7	8	Q119
B104	9	10	Q104	B108	9	10	Q108	B112	9	10	Q112	B116	9	10	Q116	B120	9	10	Q120
B105	11	12	Q105	B109	11	12	Q109	B113	11	12	Q113	B117	11	12	Q117	B121	11	12	Q121
B106	13	14	Q106	B110	13	14	Q110	B114	13	14	Q114	B118	13	14	Q118	B122	13	14	Q122
B107	15	16	Q107	B111	15	16	Q111	B115	15	16	Q115	B119	15	16	Q119	B123	15	16	Q123
B108	17	18	Q108	B112	17	18	Q112	B116	17	18	Q116	B120	17	18	Q120	B124	17	18	Q124
B109	19	20	Q109	B113	19	20	Q113	B117	19	20	Q117	B121	19	20	Q121	B125	19	20	Q125
B110	21	22	Q110	B114	21	22	Q114	B118	21	22	Q118	B122	21	22	Q122	B126	21	22	Q126
B111	23	24	Q111	B115	23	24	Q115	B119	23	24	Q119	B123	23	24	Q123	B127	23	24	Q127
B112	25	26	Q112	B116	25	26	Q116	B120	25	26	Q120</								

Pin Definitions (JH1 as an example)					
/	R1	1	2	G1	/
B1/Clock signal of serial pin	B1/JACK_SPI_CLK1	3	4	GND	/
/	R2	5	6	G2	/
B2/Module flash data storage input	B2/JACK_SPI_MOSI1	7	8	GND	/
/	R3	9	10	G3	/
/	B3	11	12	GND	/
/	R4	13	14	G4	/
/	B4	15	16	GND	/
Line decoding signal	HA1	17	18	HB1	Line decoding signal
Line decoding signal	HC1	19	20	JACK_SPI_CS1	CS signal of serial pin
Module flash data storage output	JACK_SPI_MISO1	21	22	GND	/
Shift clock	HDCLK1	23	24	HLAT1	Latch signal
Display enable signal	HOE1	25	26	GND	/

4-LED Sub-pixel Data Pins

<p>JH1</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH2</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH3</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH4</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH5</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>
<p>JH6</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH7</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH8</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH9</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>	<p>JH10</p> <p>B1 JACK_SPI_CLK1 1 2 G1</p> <p>B2 JACK_SPI_CLK1 3 4 GND</p> <p>B3 JACK_SPI_MOSI1 5 6 G2</p> <p>B4 JACK_SPI_MOSI1 7 8 GND</p> <p>B5 JACK_SPI_MOSI1 9 10 V2</p> <p>B6 JACK_SPI_MOSI1 11 12 GND</p> <p>B7 JACK_SPI_MOSI1 13 14 B3</p> <p>B8 JACK_SPI_MOSI1 15 16 GND</p> <p>B9 JACK_SPI_MOSI1 17 18 HB1</p> <p>B10 JACK_SPI_MOSI1 19 20 JACK_SPI_CS1</p> <p>B11 JACK_SPI_MOSI1 21 22 GND</p> <p>B12 JACK_SPI_MOSI1 23 24 HLAT1</p> <p>B13 JACK_SPI_MOSI1 25 26 GND</p>

Pin Definitions (JH1 as an example)					
/	R1	1	2	G1	/
B1/Clock signal of serial pin	B1/JACK_SPI_CLK1	3	4	GND	/
/	V1	5	6	R2	/

Pin Definitions (JH1 as an example)					
G2/Module flash data storage input	G2/JACK_SPI_MOSI1	7	8	GND	/
/	B2	9	10	V2	/
/	R3	11	12	GND	/
/	G3	13	14	B3	/
/	V3	15	16	GND	/
Line decoding signal	HA1	17	18	HB1	Line decoding signal
Line decoding signal	HC1	19	20	JACK_SPI_CS1	CS signal of serial pin
Module flash data storage output	JACK_SPI_MISO1	21	22	GND	/
Shift clock	HDCLK1	23	24	HLAT1	Latch signal
Display enable signal	HOE1	25	26	GND	/



Note

Line decoding only supports signals A, B, and C, and does not support signals D and E.

Specifications

Maximum Resolution	<ul style="list-style-type: none"> For PWM driver ICs, the maximum load capacity per card is: <ul style="list-style-type: none"> 512×512@60Hz (For 8bit video sources) 512×256@60Hz (For 10bit and 12bit video sources) For common driver ICs, the maximum load capacity per card is: <ul style="list-style-type: none"> 512×384@60Hz (For 8bit video sources) 256×256@60Hz (For 10bit and 12bit video sources) 	
Electrical Parameters	Input voltage	DC 3.8 V to 5.5 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	Temperature	−40°C to +85°C

Environment	Humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	146.0 mm × 91.5 mm × 19.3 mm
	Net weight	99.5 g Note: It is the weight of a single receiving card only.
Packing Information	Packing specifications	Each receiving card is packaged in a blister pack. Each packing box contains 100 receiving cards.
	Packing box	625.0 mm × 180.0 mm × 470.0 mm

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

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