



Specifications

Receiving Card MRV200

Overview

Nova M3 MRV200 is the mini-version of Nova M3 receiving card. It has small size and powerful functions. It retains all the functions and features of MRV300 receiving card and is more suitable to LED curtain and die-cast aluminum cabinet.

Features

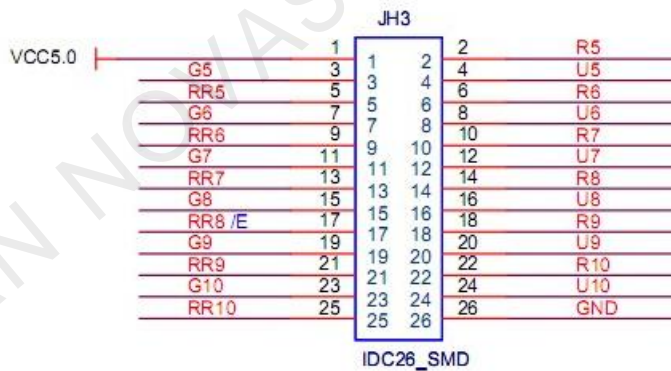
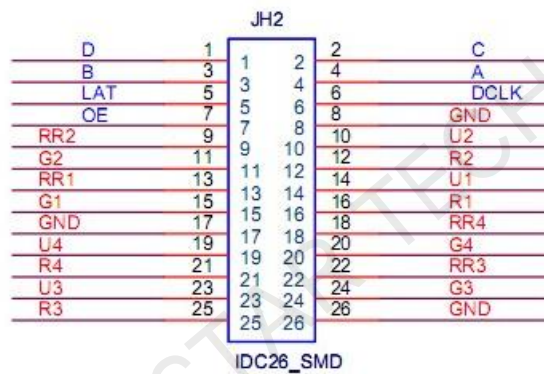
- 1) Single card outputs 16-group of RGBR 'data;
- 2) Single card outputs 20-group of RGB data;
- 3) Single card outputs 64-group of serial data;
- 4) Single card supported resolution 256x226;
- 5) Configuration file readback;
- 6) Temperature monitoring.
- 7) Ethernet cable communication status detection;
- 8) Power supply voltage detection;
- 9) Pixel-by-pixel brightness and chromaticity calibration. Brightness and chromaticity calibration coefficients for each LED;
- 10) Pre-store picture setting;
- 11) Comply with EU RoHs standard;
- 12) Comply with EU CE-EMC standard.

Output Interface Definition

Under all the three different working modes of it, three 26P interfaces can output different data, and only one common program and software is required. No customized program is necessary. Interfaces are defined as follows:

1) 16-group data mode (With virtual output)

Supporting 16-group of RGBR 'parallel data, defined as follows:



Virtual red signal of the eighth group of data is exported as E signal of decoded signal under 32-scanning working mode.



JH2 26P				JH3 26P			
1	D	C	2	1	VCC	R5	2
3	B	A	4	3	G5	U5	4
5	LAT	CLK	6	5	RR5	R6	6
7	OE	GND	8	7	G6	U6	8
9	RR2	U2	10	9	RR6	R7	10
11	G2	R2	12	11	G7	U7	12
13	RR1	U1	14	13	RR7	R8	14
15	G1	R1	16	15	G8	U8	16
17	GND	RR4	18	17	RR8	R9	18
19	U2	G4	20	19	G9	U9	20
21	R4	RR3	22	21	RR9	R10	22
23	U3	G3	24	23	G10	B10	24
25	R3	GND	26	25	RR10	GND	26

JH4 26P			
1	VCC	R11	2
3	G11	U11	4
5	RR11	R12	6
7	G12	U12	8
9	RR12	R13	10
11	G13	U13	12
13	RR13	R14	14
15	G14	U14	16
17	RR14	R15	18
19	G15	U15	20
21	RR15	R16	22
23	G16	U16	24
25	RR16	GND	26

2) 20-group parallel data mode

Supporting 20 sets of parallel data, defined as follows:

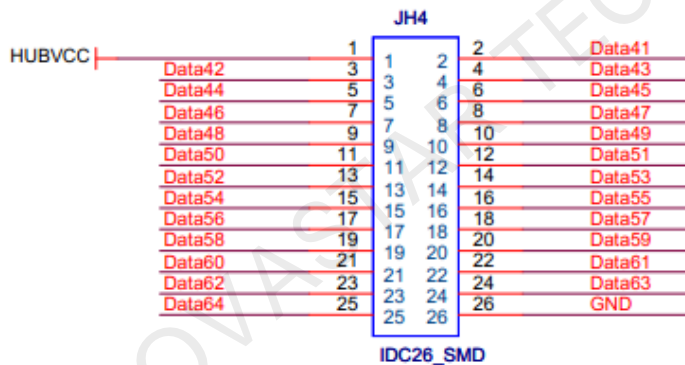
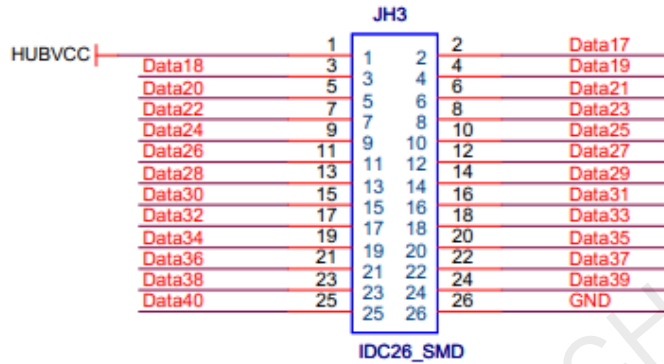
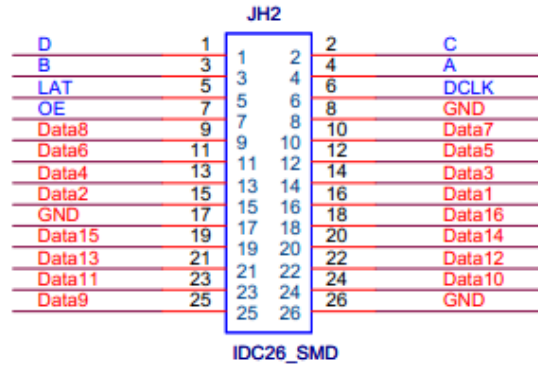
JH2 26P				JH3 26P			
1	D	C	2	1	VCC	G6	2
3	B	A	4	3	B6	R7	4
5	LAT	DCLK	6	5	G7	B7	6
7	OE	GND	8	7	R8	G8	8
9	G3	R3	10	9	B8	R9	10
11	B2	G2	12	11	G9	B9	12
13	R2	B1	14	13	R10	G10	14

15	G1	R1	16	15	B10	NC	16
17	GND	R6	18	17	E	R11	18
19	B5	G5	20	19	G11	B11	20
21	R5	B4	22	21	R12	G12	22
23	G4	R4	24	23	B12	R13	24
25	B3	GND	26	25	G13	GND	26

JH4 26P			
1	VCC	B13	2
3	R14	G14	4
5	B14	R15	6
7	G15	B15	8
9	R16	G16	10
11	B16	R17	12
13	G17	B17	14
15	R18	G18	16
17	B18	R19	18
19	G19	B19	20
21	R20	G20	22
23	B20	NC	24
25	NC	GND	26

3) 64-group serial data mode

Supporting 64 sets of serial data, defined as follows:



Under serial mode, there are 64 data cables totally. Each cable can drive one LED bar independently.

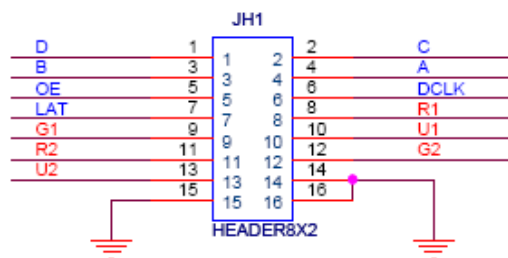
In case of horizontal LED bar, the default is, Data1 drives the first row from the top, and Data64 drives the 64th row. (front view)

In case of vertical LED bar, the default is, Data1 drives the first column of from the left, and Data64 drives the 64th column. (front view).

JH2 26P				JH3 26P			
1	D	C	2	1	HUBVCC	Data17	2
3	B	A	4	3	Data18	Data19	4
5	LAT	DCLK	6	5	Data20	Data21	6
7	OE	GND	8	7	Data22	Data23	8
9	Data8	Data7	10	9	Data24	Data25	10
11	Data6	Data5	12	11	Data26	Data27	12
13	Data4	Data3	14	13	Data28	Data29	14
15	Data2	Data1	16	15	Data30	Data31	16
17	GND	Data16	18	17	Data32	Data33	18
19	Data15	Data14	20	19	Data34	Data35	20
21	Data13	Data12	22	21	Data36	Data37	22
23	Data11	Data10	24	23	Data38	Data39	24
25	Data9	GND	26	25	Data40	GND	26

JH4 26P			
1	HUBVCC	Data41	2
3	Data42	Data43	4
5	Data44	Data45	6
7	Data46	Data47	8
9	Data48	Data49	10
11	Data50	Data51	12
13	Data52	Data53	14
15	Data54	Data55	16
17	Data56	Data57	18
19	Data58	Data59	20
21	Data60	Data61	22
23	Data62	Data63	24
25	Data64	GND	26

4) Special interface for light series or color screen



Appearance



Note: Pictures used in this manual are J version of the board card. The functions of different versions are basically the same. There are only a few small differences in their appearance.

J2 definition (Connector interface of the network ports)

2	4	6	8	10	12	14	16	18	20
A0+	A1+	A2+	A3+	B0+	B1+	B2+	B3+	GND	VCC
1	3	5	7	9	11	13	15	17	19
A0-	A1-	A2-	A3-	B0-	B1-	B2-	B3-	GND	VCC

J9 definition (Indicator light Socket)

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

Specifications

	MIN	TYP	MAX	UNIT
Rated voltage	3.3	5.0	5.5	V
Rated current	0.33	0.5	0.55	A
Temperature of working environment	-20.0~70.0			°C
Humidity of working environment	10.0~90.0			%

Specific Model List

To meet the needs of different customers, Nova provides more specific models of the products, including standard products in stock. Other models need to be customized.

Model	Specification
MRV200 - 1	Standard model, male connector on top
MRV200 - 2	Male connector on bottom
MRV200 - 3	Female connector on top
MRV200 - 4	Female connector on bottom

Appendix

Serial data decoding circuit :

