



# Specifications

## Receiving Card MRV470

## Overview

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MRV470 is the EMC version of MRV270 with its effective reduction of the electromagnetic radiation of the whole system.

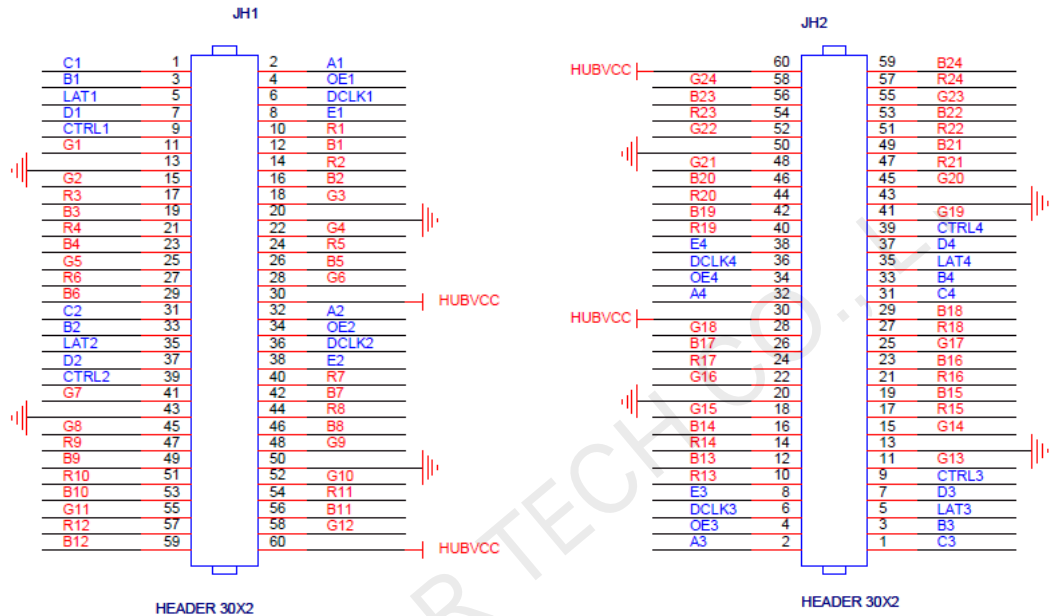
## Features

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- 1) Single card outputs 24-group of data;
- 2) Single card support resolution 256x226 ;
- 3) MOM can store calibration coefficient and the LED module information;
- 4) Configuration file read back;
- 5) Temperature monitoring.
- 6) Ethernet cable communication status detection;
- 7) Power supply voltage detection;
- 8) High gray scale and high refresh rate;
- 9) Pixel-by-pixel brightness and chromaticity calibration.
- 10) Brightness and chromaticity calibration coefficients for each LED;
- 11) Pre-store picture setting;
- 12) Comply with EU CE-EMC Class B standard;
- 13) Comply with RoHS standard.

# Output Interface Definition

MRV470 supports 24-group data mode. Interfaces are defined as follows:

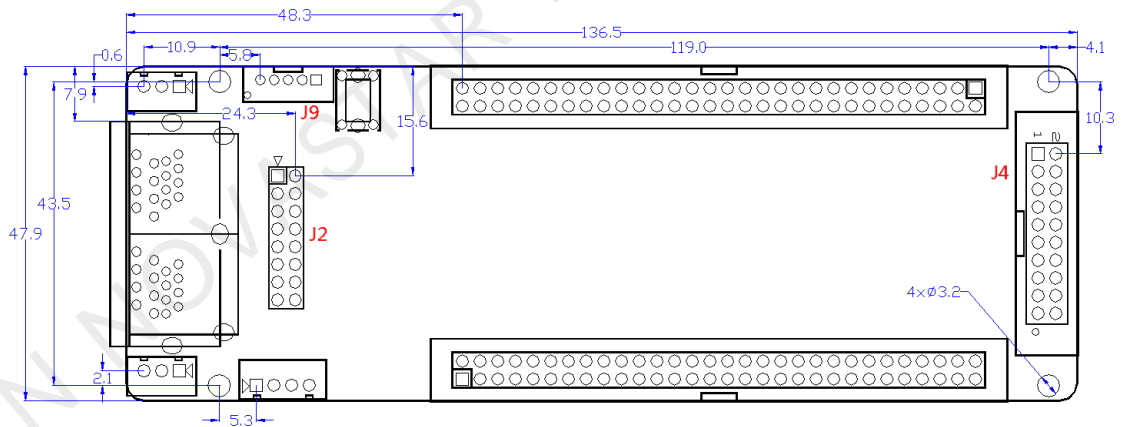


JH1				JH2			
1	C1	A1	2	1	C3	A3	2
3	B1	OE1	4	3	B3	OE3	4
5	LAT1	DCLK1	6	5	LAT3	DCLK3	6
7	D1	E1	8	7	D3	E3	8
9	CTRL1	R1	10	9	CTRL3	R13	10
11	G1	B1	12	11	G13	B13	12
13	GND	R2	14	13	GND	R14	14
15	G2	B2	16	15	G14	B14	16
17	R3	G3	18	17	R15	G15	18
19	B3	GND	20	19	B15	GND	20
21	R4	G4	22	21	R16	G16	22
23	B4	R5	24	23	B16	R17	24
25	G5	B5	26	25	G17	B17	26
27	R6	G6	28	27	R18	G18	28
29	B6	VCC	30	29	B18	VCC	30
31	C2	A2	32	31	C4	A4	32
33	B2	OE2	34	33	B4	OE4	34
35	LAT2	DCLK2	36	35	LAT4	DCLK4	36
37	D2	E2	38	37	D4	E4	38
39	CTRL2	R7	40	39	CTRL4	R19	40

41	G7	B7	42	41	G19	B19	42
43	GND	R8	44	43	GND	R20	44
45	G8	B8	46	45	G20	B20	46
47	R9	G9	48	47	R21	G21	48
49	B9	GND	50	49	B21	GND	50
51	R10	G10	52	51	R22	G22	52
53	B10	R11	54	53	B22	R23	54
55	G11	B11	56	55	G23	B23	56
57	R12	G12	58	57	R24	G24	58
59	B12	VCC	60	59	B24	VCC	60

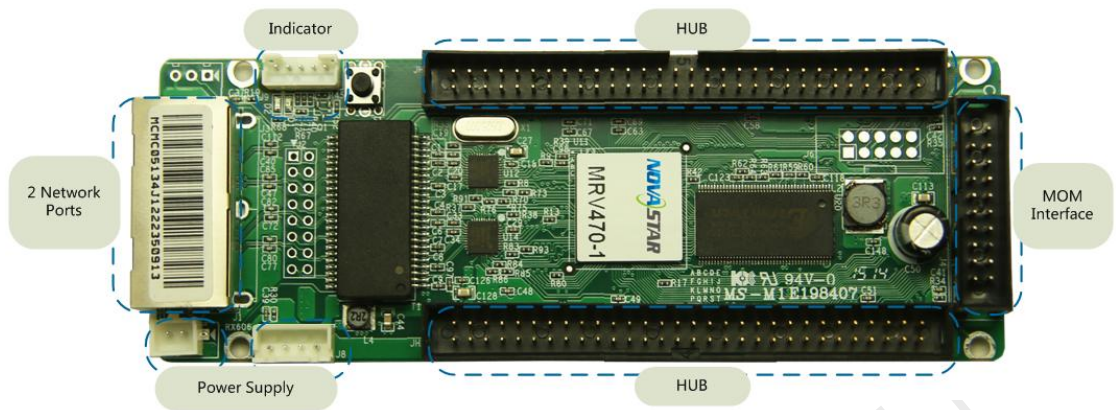
## Dimensions

Thickness of the board is about 2mm. The overall thickness (board thickness + thickness of the components on front and back side) is about 18mm.



Unit: mm.

# Appearance



**Note:** Pictures used in this manual are **C** 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

## J4 ( MOM Interface ):

GND	1	2	SPI_CS
SPI_CLK	3	4	SPI_MOSI
CODE0	5	6	H164_CSD
CODE1	7	8	H164_CLK
CODE2	9	10	
	11	12	CODE3
CODE4	13	14	
	15	16	SPI_MISO
	17	18	
	19	20	GND

## Specifications

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	MIN	TYP	MAX	UNIT
Rated voltage	3.3	5.0	5.5	V
Rated current	0.33	0.50	0.55	A
Temperature of working environment	-20.0~70.0			°C
Humidity of working environment	10.0~90.0			%

## Specific Model List

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To meet the needs of different customers, Nova has provided more specific models of the products, including standard products in stock.

Other models need to be customized.

Model	Specification
MRV470 - 1	Standard model, male connector on top
MRV470 - 2	Male connector on bottom
MRV470 - 3	Female connector on top
MRV470 - 4	Female connector on bottom

# Appendix

Serial data decoding circuit :

