

Receiving Card M-RA70 Specs

I . Product Introduction

With tiny size, M-RA70 is a high standard Universal Receiving Card of Mooncell, with the following features :

1. 32 sets of RGB output.
2. One single card can load the maximum 96K pixels, each set data can load 8K pixels.
3. Input voltage: +3.5V--+6V.
4. High refresh frequency, high brightness, high grayscale for general ICs.
5. Dual backup for the network Cable.
6. Support intelligent module, store debugged data and module parameters, etc..
7. Support monitoring for the temperature, humidity, power supply voltage, fans of the screen box.
8. Support monitoring for ribbon wires.
9. Support to extract at any position, and shift the display position of date, make any of irregular screen display easy to realize.
10. Supports to detect the mistakes for LED module point by point.
11. Support any scan type of 1-1/32, and 595 or other serial decode scan.
12. Support to debug point by point for the brightness and chroma, with no lose of loading area of Receiving card.
13. Variety of Driver ICs are supported, such as: PWM IC, Point by point Detecting IC and Conventional IC.
14. Supports receiving card stored picture settings before hand.
15. Support Monitoring for all the parameters of the receiving card.
16. Support Monitoring for the external environment.
17. Intelligent recovery function, swapping the receiving cards without

loading all the data again.

18. Screen will never be black. Companied with Mooncell Intelligent Power Supply(two power, supplies as in parallel, equalized current, short-circuit protection) you will never ever get black screen.

19. It confirms to RoHs and CE-EMC standards.

II . The definition of the output port

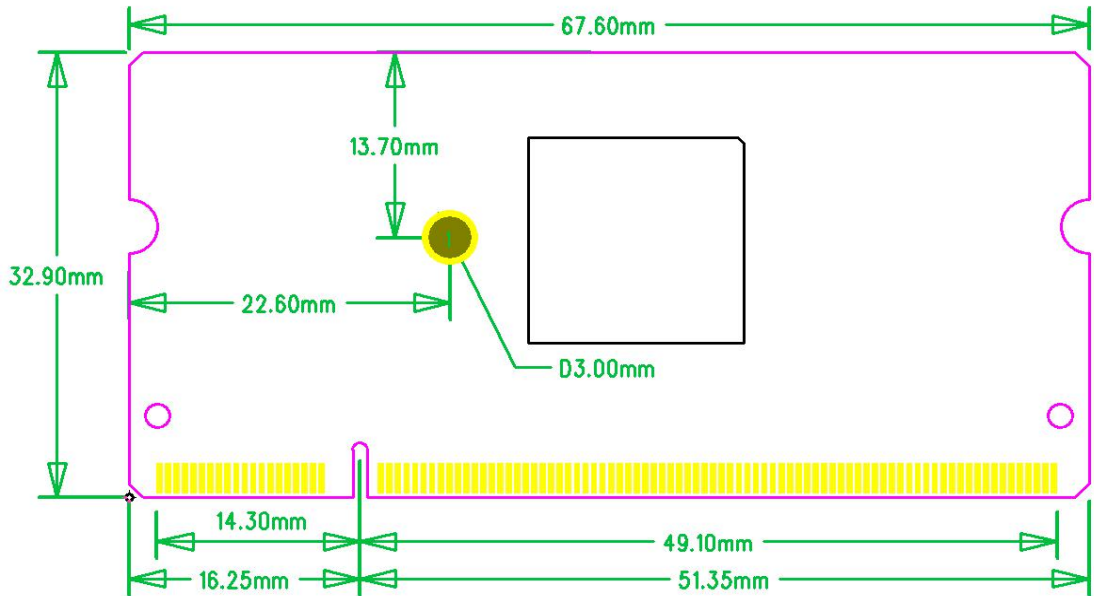
Definition of output port JP1:

Instructions	Pin definition	Pin No.		Pin definition	Instructions
Grounding	GND	1	2	D5V	Power for system
	GND	3	4	D5V	
	GND	5	6	D5V	
	GND	7	8	D5V	
	GND	9	10	D5V	
	GND	11	12	D5V	
Vacancy	NC	13	14	NC	Vacancy
Network port 1 signal pin Recommend to use isolated voltage transformer	P1MDIA+	15	16	P0MDIA+	Network port 2 signal pin Recommend to use isolated voltage transformer
	P1MDIA-	17	18	P0MDIA-	
	NC	19	20	NC	
	P1MDIB-	21	22	P0MDIB-	
	P1MDIB+	23	24	P0MDIB+	
	NC	25	26	NC	
	P1MDIC+	27	28	P0MDIC+	
	P1MDIC-	29	30	P0MDIC-	
	NC	31	32	NC	
	P1MDID-	33	34	P0MDID-	
P1MDID+	35	36	P0MDID+		
Vacancy	NC	37	38	NC	Vacancy
Grounding	GND	39	40	GND	Grounding
Indicator light ,Reuse button	LED_BTN_LED	41	42	A	Display control: 1、ABCDE are line decoding signal; 2、LED_LAT is signal saving 3、LED_OE is
Temperature monitoring	LED_TEMP	43	44	B	
Humidity monitoring	LED_HUM	45	46	C	
Fan monitoring	LED_FAN	47	48	D	
Line blanking	LED_CTRL	49	50	E	
Serial clock	LED_SCLK	51	52	LED_LAT	

Vice serial clock	LED_SCLK_S	53	54	LED_OE	display enabled , PWM IC time is GCLK ;
	GND	55	56	GND	
Part A RGB output , total 8 groups RGB for corresponding LED_SCLK	LED_R1	57	58	LED_R2	Part B RGB output , total 8 groups RGB for corresponding LED_SCLK_S
	LED_G1	59	60	LED_G2	
	LED_B1	61	62	LED_B2	
	LED_R3	63	64	LED_R4	
	LED_G3	65	66	LED_G4	
	LED_B3	67	68	LED_B4	
	LED_R5	69	70	LED_R6	
	LED_G5	71	72	LED_G6	
	LED_B5	73	74	LED_B6	
	LED_R7	75	76	LED_R8	
	LED_G7	77	78	LED_G8	
	LED_B7	79	80	LED_B8	
	LED_R9	81	82	LED_R10	
	LED_G9	83	84	LED_G10	
	LED_B9	85	86	LED_B10	
	LED_R11	87	88	LED_R12	
	LED_G11	89	90	LED_G12	
	LED_B11	91	92	LED_B12	
	LED_R13	93	94	LED_R14	
	LED_G13	95	96	LED_G14	
	LED_B13	97	98	LED_B14	
	LED_R15	99	100	LED_R16	
	LED_G15	101	102	LED_G16	
LED_B15	103	104	LED_B16		
GND	105	106	GND		
GND	107	108	GND		
LED_R17	109	110	LED_R18		
LED_G17	111	112	LED_G18		
LED_B17	113	114	LED_B18		
LED_R19	115	116	LED_R20		
LED_G19	117	118	LED_G20		
LED_B19	119	120	LED_B20		
LED_R21	121	122	LED_R22		
LED_G21	123	124	LED_G22		
LED_B21	125	126	LED_B22		
LED_R23	127	128	LED_R24		

LED_G23	129	130	LED_G24
LED_B23	131	132	LED_B24
LED_R25	133	134	LED_R26
LED_G25	135	136	LED_G26
LED_B25	137	138	LED_B26
LED_R27	139	140	LED_R28
LED_G27	141	142	LED_G28
LED_B27	143	144	LED_B28
LED_R29	145	146	LED_R30
LED_G29	147	148	LED_G30
LED_B29	149	150	LED_B30
LED_R31	151	152	LED_R32
LED_G31	153	154	LED_G32
LED_B31	155	156	LED_B32
GND	157	158	GND
LED_SPI_SCK	159	160	LED_SPI_SDI
LED_SPI_CS1	161	162	LED_SPI_CS2
LED_SPI_SDO1	163	164	LED_SPI_SDO2
LED_SPI_CS3	165	166	LED_SPI_CS4
LED_SPI_SDO3	167	168	LED_SPI_SDO4
LED_SPI_CS5	169	170	LED_SPI_CS6
LED_SPI_SDO5	171	172	LED_SPI_SDO6
LED_SPI_CS7	173	174	LED_SPI_CS8
LED_SPI_SDO7	175	176	LED_SPI_SDO8
LED_M1	177	178	LCD_CTRL1
LED_M2	179	180	LCD_CTRL2
LED_M3	181	182	LCD_CTRL3
LED_M4	183	184	LCD_CTRL4
LED_M5	185	186	LCD_CTRL5
LED_M6	187	188	RCV_BK1
LED_M7	189	190	RCV_BK2
NC	191	192	NC
NC	193	194	NC
NC	195	196	NC
NC	197	198	NC
GND	199	200	GND

III. Size and Connectors



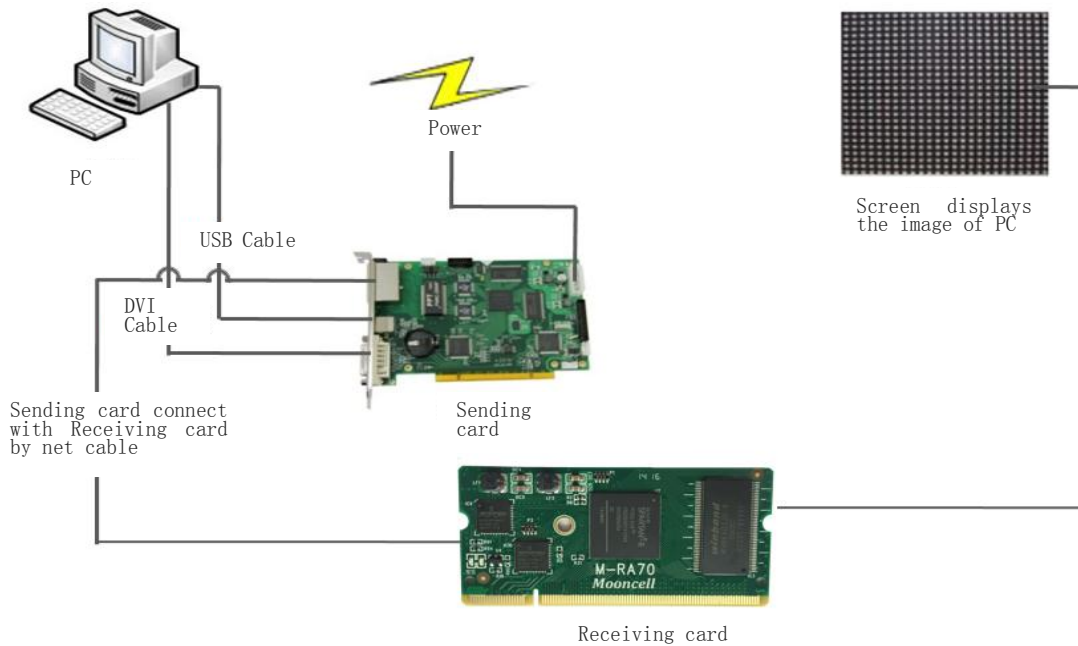
IV. Product Picture



V. Technical Parameters

Performance Options	Typical Value	Maximum Value
Supported Screen Module	Single Color/ Dual Color/ Full Color/Virtual Pixel	
Supported Receiving Card Quantity(Single Network Port, Cascading)	<100	240
Areas of Pixel Loaded for One Single Card	128*128	96K
RGB Output Group of single receiving card	32	32
Lines of One Set of RGB Driver	1/2/4/8/16/32	1~32
Optical Fiber Transmit Distance	Multi-mode Optical Fiber: 500m; Single-Mode Optical Fiber: 10km	
Some other Performances	10b Video Source, OE Protection, LED Display Self-Detecting	
Working Current	0.6A	1.0A
Protecting Current	3.0A	
Working Temperature	-10°C - 65°C	
Extreme Working Temperature	-20°C - 75°C	
Working Humidity (%)	0%~95%	

VI.Connection



VII.Packing Content

1. One Receiving Card, Anti-static Bubble foam Bag.
2. 100PCS in one Carton.

VIII.Attentions

1. Please follow the Instructions for the standard Operation.
2. Professionals are needed to install and test the product, and it has to be anti-static.
3. Keep away from water.