

M9

LED receiver series

Version: v2.3

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Specification



TEL 400 159 0808
Web: www.kystar.com.cn

Beijing KYSTAR Technology Co., Ltd.

Professional Ultra HD Video Display
Control system integrated solution and service provider

Version history

The version number	Change details	Publish time
V1.0	The first version was released	2021. 06.12
V1.1	Modify the document device description	2021. 07.08
V2.2	Modify the cover page	2021.10.25

1 Product overview

1.1 Product application

M9 receiving card is a small size full-featured high-end receiving card, applied to the LED display as a display data receiving device, used to convert the received data into a signal that can be recognized by the driver chip, and spliced into an image for display on the large screen.

1.2 Features

- A single card supports 32 sets of RGB signals for parallel output.
- Single card with 512*256 pixels.
- DDR2 SODIMM interface is adopted, and the connection is stable and reliable.
- Unique arbitrary frequency doubling technology, the phone shoots without scanning lines.
- Unique color reproduction technology makes the face complexion more realistic.
- Supports a wide range of general-purpose chips, dual-latch chips and PWM chips.
- Support HDR10 high dynamic range display.
- Support low-light high-gray display.
- Supports point-by-point brightness correction function.
- Support dual SIM backup.
- Support dual power backup detection function.
- Support external LCD module.
- Supports flash management of lightboards.
- Supports its own temperature and voltage monitoring functions.
- Support one-click read back profile information function.
- Support one-click repair function, card replacement worry-free.
- Supports real-time detection of network communication status.
- Support display rotation function at any angle.
- Support any extraction point, easy to set up a variety of special-shaped screens.

- Complies with EU RoHS standards.
- Passed CE, FCC certification.

2 Product appearance



Figure 1 Front view of the M9 receiving card

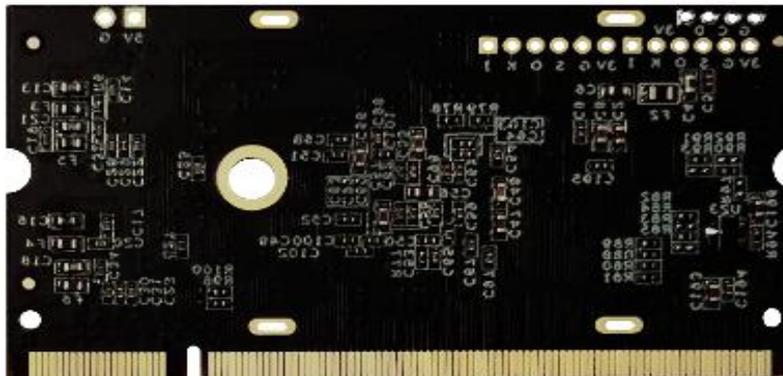


Figure 2 M9 receiving card back

3 Interface signal definition

Instructions for use	Pin definitions	Pin serial number		Pin definitions	Instructions for use
earthing	GND	1	2	VCC	Power supply to the system
	GND	3	4	VCC	
	GND	5	6	VCC	
	GND	7	8	VCC	
	GND	9	10	VCC	
	GND	11	12	VCC	

vacant	NC	13	14	NC	vacant
Network port 1 signal pin	Port1_T0+	15	16	Port2_T0+	Ethernet port 2 signal pin
	Port1_T0-	17	18	Port2_T0-	
	NC	19	20	NC	
	Port1_T1+	21	22	Port2_T1+	
	Port1_T1-	23	24	Port2_T1-	
	NC	25	26	NC	
	Port1_T2+	27	28	Port2_T2+	
	Port1_T2-	29	30	Port2_T2-	
	NC	31	32	NC	
	Port1_T3+	33	34	Port2_T3+	
Port1_T3-	35	36	Port2_T3-		
vacant	NC	37	38	NC	vacant
earthing	GND	39	40	GND	earthing
LED, multiplex	BTN_LED	41	42	A	Display control: 1, ABCDE is a line decoding signal; 2, LED_LAT is a signal latch; 3, LED_OE is enabled, PWM chips are GCLK;
Temperature	TEMP	43	44	B	
Humidity monitoring	HUM	45	46	C	
Fan control	FAN	47	48	D	
Line blanking	CTRL	49	50	E	
Serial shift clock	CLK	51	52	LAT	
When the second serial shifts	CLK_S	53	54	OE	
earthing	GND	55	56	GND	earthing
Part A RGB output, a total of 8 RGB groups, corresponding to LED_SCLK	R1	57	58	R2	Part B RGB output, a total of 8 RGB groups, corresponding to LED_SCLK
	G1	59	60	G2	
	B1	61	62	B2	
	R3	63	64	R4	
	G3	65	66	G4	
	B3	67	68	B4	
	R5	69	70	R6	
	G5	71	72	G6	
B5	73	74	B6		
	R7	75	76	R8	
	G7	77	78	G8	
	B7	79	80	B8	
	R9	81	82	R10	
	G9	83	84	G10	
	B9	85	86	B10	
	R11	87	88	R12	
	G11	89	90	G12	
	B11	91	92	B12	
	R13	93	94	R14	
G13	95	96	G14		

	B13	97	98	B14	
	R15	99	100	R16	
	G15	101	102	G16	
	B15	103	104	B16	
earthing	GND	105	106	GND	earthing
	GND	107	108	GND	
Part C RGB output, a total of 8 RGB groups, corresponding to LED_SCLK. Can be used as a point-and-check backhaul for Part A or as a circuit signal detection backhaul.	R17	109	110	R18	Part D RGB output, a total of 8 RGB groups, corresponding to LED_SCLK. Can be used as a point check backhaul for Part B or as a circuit signal detection callback.
	G17	111	112	G18	
	B17	113	114	B18	
	R19	115	116	R20	
	G19	117	118	G20	
	B19	119	120	B20	
	R21	121	122	R22	
	G21	123	124	G22	
	B21	125	126	B22	
	R23	127	128	R24	
	G23	129	130	G24	
	B23	131	132	B24	
	R25	133	134	R26	
	G25	135	136	G26	
	B25	137	138	B26	
	R27	139	140	R28	
	G27	141	142	G28	
	B27	143	144	B28	
	R29	145	146	R30	
	G29	147	148	G30	
B29	149	150	B30		
R31	151	152	R32		
G31	153	154	G32		
B31	155	156	B32		
earthing	GND	157	158	GND	earthing
Smart Module (Module Storage Correction Factor)	LED_SPI_SCK	159	160	LED_SPI_SDI	Smart Module (Module Storage Correction Factor)
	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		
Power supply monitoring	LED_PWR1	177	178	NC	vacant
	LED_PWR2	179	180	LCD_RS	LCD screen
	LED_PWR3	181	182	LCD_SDA	

	LED_PWR4	183	184	LCD_SCL	
	LED_PWR5	185	186	LCD_CS	
obligate	NC	187	188	RCV_BK1	Receive a dual backup letter from
	NC	189	190	RCV_BK2	
LCD screen	LCD_TXD	191	192	LED_RED	RGB tri-color LED
	LCD_RXD	193	194	LED_GREEN	
vacant	NC	195	196	LED_BLUE	
	NC	197	198	NC	vacant
earthing	GND	199	200	GND	earthing

4 Description of the LED status

LED status	
LED1	The power indicator is red, and the solid light indicates that the power supply is normal and goes off The delegate is not powered on
LED2	The device operation indicator is green, flashes when there is a signal input, and is not lit or solid when there is no signal

5 Electrical parameters

project	The parameter value
Rated voltage	DC 3.3V-5.5V
Rated current	0.5A
Operating temperature	-10°C- 70°C
Operating humidity	0% - 95%

6 Dimensional drawings

