



# i9 Receiving Card

Specification

## i9 Receiving Card



### Features

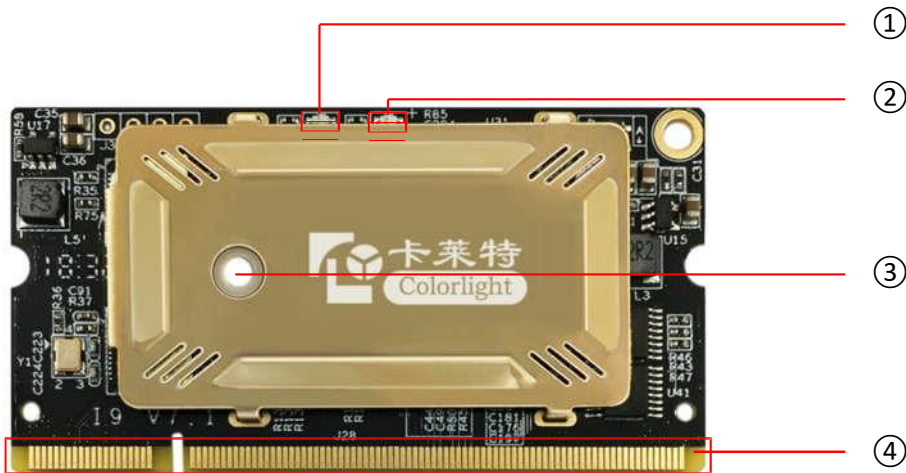
- Tiny size: 68\*36mm, DDR2 SODIMM interface, easy for maintenance
- Supports 30bit video input, meets the HDR@4K standard
- Supports 32 sets of RGB signal parallel output
- Loading capacity: 384\*256 pixels
- Supports brightness and chromaticity point-by-point calibration with 14bit accuracy
- Improved grayscale performance at low brightness
- Supports color temperature and gamut adjustment
- Supports highlight and sorting
- Seam compensation
- Low latency
- Fast upgrades and fast send out calibration coefficients
- Supports smart module to save calibration coefficients and other information on module
- Temperature, humidity, power supply voltage monitoring on cabinet and fan control
- Supports LED point-by-point error detection of module
- Supports LCD panel display
- Supports dual card backup and dual power backup
- Supports any scan mode from static to 1/32 scan, supports serial decoding scan such as 595
- Supports any pumping point, and realize creative displays like shaped display, spherical display, etc.
- Compatible with all series of Colorlight sending devices

## Specifications

<b>Control System Parameters</b>	
Sending Device	All series of Colorlight sending devices
Capacity	Full-color: 384*256 pixels
Network Port Exchange	Supported, arbitrary use
Gray Level	Maximum 65536 levels
<b>Display Module Compatibility</b>	
Chip Supports	PWM chips
Scan Type	Supports any scan type from static to 1/32 scan
Module Specifications Support	Supports 8192 pixels within any row, any column
Cable Direction	Supports route from left to right, from right to left, from top to bottom, from bottom to top
Data Sets	32 sets of parallel RGB full color data, 32 sets of serial RGB data
Data Folded	Supports 1~4 any discount to improve refresh rate
Data Exchange	32 sets of data any exchange
Module Snapshot	Supports any pumping point
<b>Compatible Device and Interface Type</b>	
Communication Distance	UTP cable ≤ 140M CAT6 cable ≤ 170M Optic fiber transmission distance unrestricted
Compatible with Transmission Equipment	Gigabit switch, fiber transceiver, optical switches
Size	67.6*35.5mm
Input Voltage	DC 3.3V~6V
Rated Current	0.5A
Rated Power	2.5W
Storage and Transport Temperature	-50℃~125℃
Operating Temperature	-25℃~75℃

Body Static Resistance	2KV
Weight	9.5g
<b>Monitoring Function (in conjunction with multi-function card)</b>	
Temperature Monitoring	Cabinet temperature monitoring between -25°C ~ 75°C 1 port for each card
Humidity Monitoring	Receiver card humidity monitoring between 20% ~ 95% 1 port for each card
Bit Error Monitoring	Monitors the total number of data packets and error packets to check network quality
Supply Voltage Monitoring	3 ports for supply voltage monitoring
Full Color LCD Display Panel	Supported
<b>Pixel Level Calibration</b>	
Brightness Calibration	Supported
Chromaticity Calibration	Supported
<b>Other Features</b>	
Hot Backup	Supports loop backup, dual sender backup, dual receiver card backup and dual power supply backup
Shaped Screen	Supports various freeform display, spherical display, creative display, etc.
Program Backup	Proprietary redundant firmware backup on card no matter how to use, upgrade, send parameters, continuous functionality

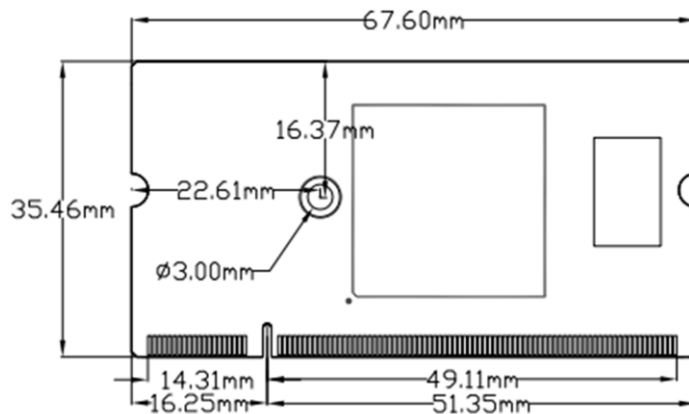
Hardware



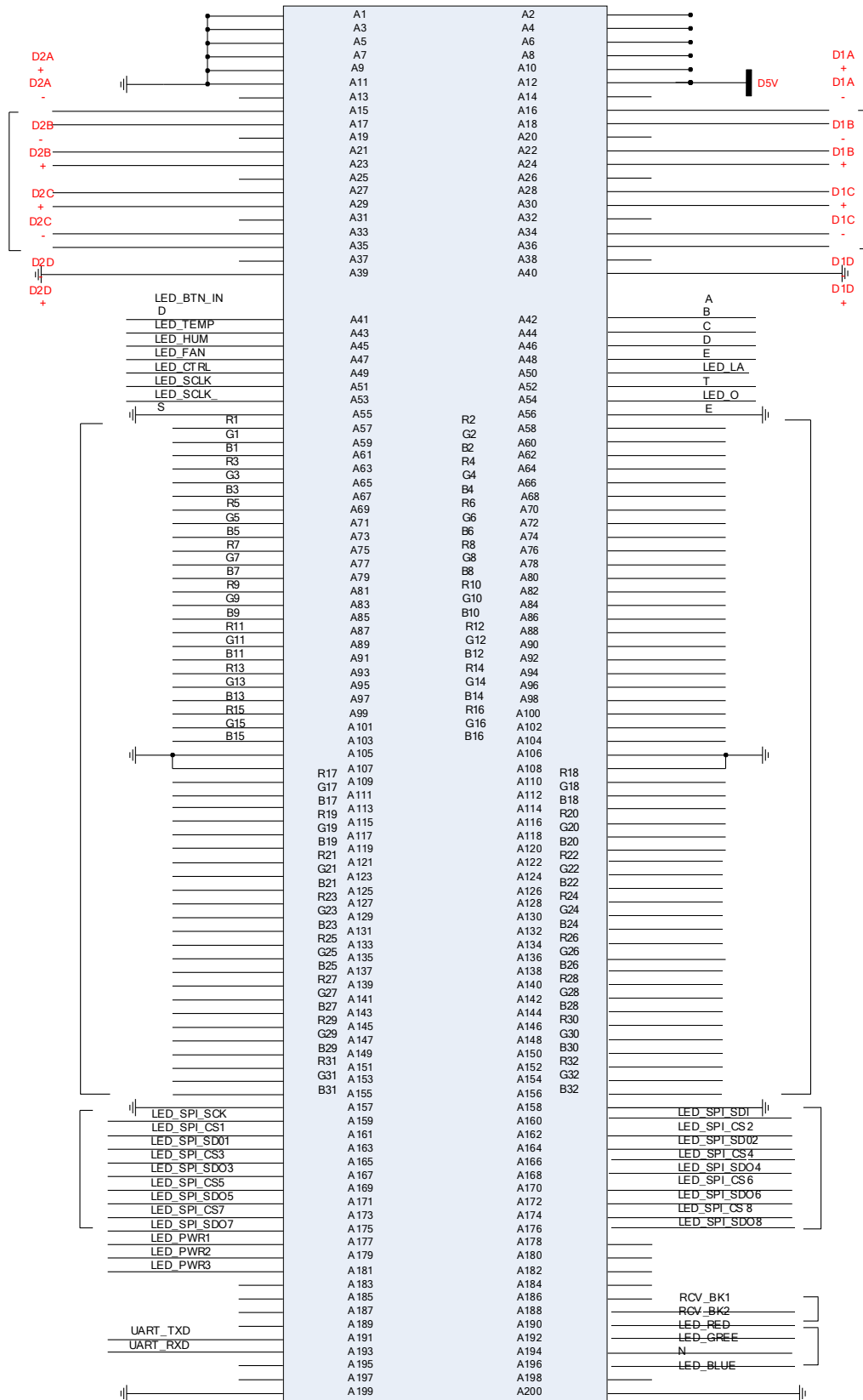
1, Interface

S/N	Name	Function	Remarks
1	Signal indicator light	The green indicator light flashes rapidly (about 5-10 times/second) to show that the data signal transmission is normal	
2	Power indicator light	The red indicator light shows that the power supply is normal	
3	Fixed hole	Used to reinforce the receiving card to improve vibration resistance	
4	DDR interface	Connects with display's HUB board or unit plate	From the diagram above, the left side of the guide plate is first pin (Viewing from the front of card)

2, Figure for Size and Hole Position



### 3, Definition of Pins



**4, Description of Pins**

Instructions	Definition	Pin No.		Definition	Instructions
Ground Connection	GND	1	2	D5V	Power Supply
	GND	3	4	D5V	
	GND	5	6	D5V	
	GND	7	8	D5V	
	GND	9	10	D5V	
	GND	11	12	D5V	
Do not connect	NC	13	14	NC	Do not connect
Network port signal pin	D2A+	15	16	D1A+	Network port signal pin
	D2A-	17	18	D1A-	
	NC	19	20	NC	
	D2B-	21	22	D1B-	
	D2B+	23	24	D1B+	
	NC	25	26	NC	
	D2C+	27	28	D1C+	
	D2C-	29	30	D1C-	
	NC	31	32	NC	
	D2D-	33	34	D1D-	
D2D+	35	36	D1D+		
Do not connect	NC	37	38	NC	Do not connect
Ground connection	GND	39	40	GND	Ground connection
Button test / Work indicator light	LED_BTN_IND	41	42	A	Display control: 1, ABCDE for row decoding signal 2, LED_LAT for signal lock 3, LED_OE for independent clock
Temperature monitoring	LED_TEMP	43	44	B	
Humidity monitoring	LED_HUM	45	46	C	
Fan output	LED_FAN	47	48	D	
Blanking	LED_CTRL	49	50	E	
Serial clock	LED_SCLK	51	52	LED_LAT	
	LED_SCLK_S	53	54	LED_OE	
Ground connection	GND	55	56	GND	Ground connection
RGB output	R1	57	58	R2	RGB output
	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	
Ground connection	GND	105	106	GND	Ground connection
	GND	107	108	GND	
RGB output	R17	109	110	R18	RGB output
	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		
Ground connection	GND	157	158	GND	Ground connection



Smart module	LED_SPI_SCK	159	160	LED_SPI_SDI	Smart module
	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	Reserved
	LED_PWR2	179	180	NC	
	LED_PWR3	181	182	NC	
Reserved	NC	183	184	NC	Dual card backup
	NC	185	186	NC	
	NC	187	188	RCV_BK1	
	NC	189	190	RCV_BK2	
LCD screen interface	UART_TXD	191	192	LED_RED	LED RGB indicator
	UART_RXD	193	194	LED_GREEN	
Reserved	NC	195	196	LED_BLUE	Reserved
	NC	197	198	NC	
Ground connection	GND	199	200	GND	Ground connection

Colorlight Russia and Belarus: [www.powerlight.ru](http://www.powerlight.ru)

