5A-

Receiving Card

Specification V8.1

Overview

5A-75B receiving card was a Colorlight's special introduced high cost-effect product that designed for customers to save cost, reduce points of fault and failure rate. Based on 5A receiving card, 5A-75B integrates the most common HUB75 interfaces, which is more reliable and more economical on the premise that ensures high-quality display.

Features

- Integrated 8-way HUB75 interface, more convenient with less cost

- Reduces the plug connectors and malfunction, lower failure rate

- Superior display quality: high refresh rate, high grayscale, and high brightness with the conventional chips

- Supports conventional chips, PWM chips, Silan chips

- Perfect performance under lower grayscale status

- Better detail processing: partial dark at row, reddish at low gray, shadow problems can be solved

- Supports high-precision pixel level calibration in the brightness and the chromaticity

- Supports up to 1/64 scan

- Supports any pumping point and any pumping row and pumping column and data group offset to realize various freeform display, spherical display, creative display, etc.

- Supports 16 groups of RGB signal parallel outputs

- Large loading capacity

- Wide working voltage range with DC3.8~5.5V

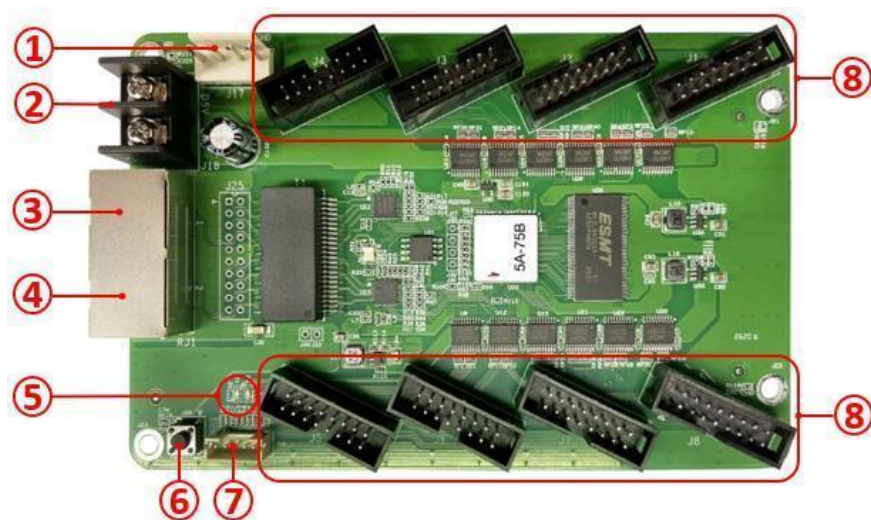- Compatible with all series of Colorlight's sending devices

Specifications

Control System Parameters	
Control Area	Conventional: 128×512 pixels, PWM:256×512 pixels
Network Port Exchange	Supported, arbitrary use
Synchronization	Nanosecond synchronization between cards
Display Module Compatibility	
Chip Supports	Supports conventional chips, PWM chips, Silan chips and other mainstream chips
Scan Type	Supports up to 1/64 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 Group	16 groups of RGB data
Data Folded	Supports 2 splits and 4 splits in the same direction, and 2 splits in the opposite direction
Data Exchange	16 groups of data for any exchange
Module Pumping Point	Supported
Module Pumping Row, Pumping Column	Supported
Data Serial Transmission	Supports RGB, R16G16B16, etc. in the form of serial
Compatible Device and Interface Type	
Communication Distance	Suggest CAT5e cable≤100m
Compatible with Transmission Equipment	Gigabit switch, fiber converter, optical switches
DC Power Interface	Wafer VH3.96mm-4P, Barrier Terminal Block-8.25mm-2P
HUB Interface Type	HUB75
Physical Parameters	

Size	145.2mm×91.7mm
Input Voltage	DC 3.8V-5.5V
Rated Current	0.6A
Rated Power Consumption	3W
Storage and Transport Temperature	-40℃~125℃
Operating Temperature	-25℃~75℃
Body Static Resistance	2KV
Weight	84g
Monitoring Functions (in conjunction with multi-function card)	
Monitoring Functions	Real time monitoring environment information like temperature, humidity and smoke
Remote Control	Supports for relay switch to turn on/off the power supply of equipment remotely
Other Features	
Pixel Level Calibration	Supported
Loop Backup	Supported
Shaped Screen	Supports various freeform display like spherical display, creative display, etc. through data group offset.

Hardware

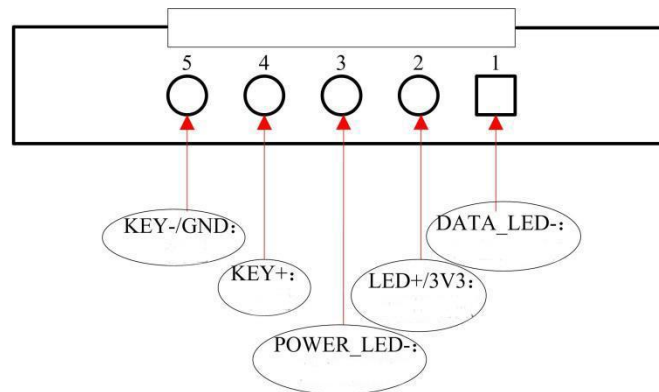| S/N	Name	Function		Remarks
1	Power 1	Connect DC 3.8~5.5V power supply for the receiving card		Only one is used.
2	Power 2	Connect DC 3.8~5.5V power supply for the receiving card		
3	Network port A	RJ45，for transmitting data signals		The dual network ports can achieve import/export at random, which can be identified in an intelligent way by the system.
4	Network port B	RJ45，for transmitting data signals		
5	Power indicator light	Red indicator light shows that the power supply is normal.		D1
	Signal indicator light	Flashes once per second	Receiving card: normal working, Network cable connection: normal	D2
		Flashes 10 times per second	Receiving card: normal working, Cabinet: Sorting & Highlight	
		Flashes 4 times per second	Receiving card: backing up senders (loop backup status)	
6	Test button	The attached test procedures can achieve four kinds of monochrome display (red, green, blue and white), as		

		well as horizontal, vertical and other display scan modes.	
7	External interfaces	For Indicator light and test button	
8	HUB pins	HUB75 Interface, J1~J8 connected to display modules	

Definitions of HUB75

Data signal			Scanning signal			Control signal	
GD1	GND	GD2	E	B	D	LAT	GND
2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15
RD1	BD1	RD2	BD2	A	C	CLK	OE
Data signal				Scanning signal		Control signal	

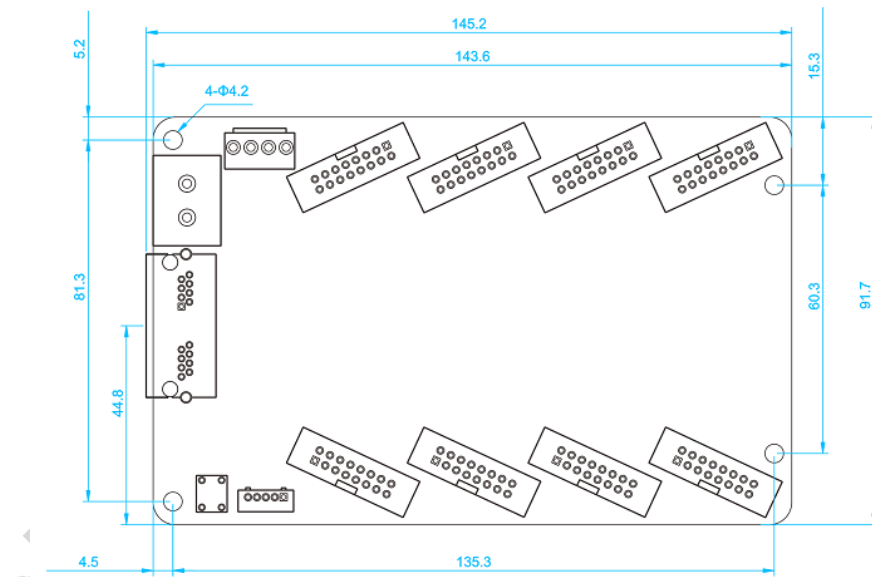## Definition of External Interface

Dimensions

Unit：mm

Tolerance：±0.1mm

Statement

Thank you for purchasing the product of Colorlight Cloud Tech Ltd. If you encounter any problems during use or have any suggestions, please contact us through official channels. We will do our best to provide support and listen to your valuable suggestions. We will constantly make improvements on technical specifications but without notice.