

5A-75B Receiving Card

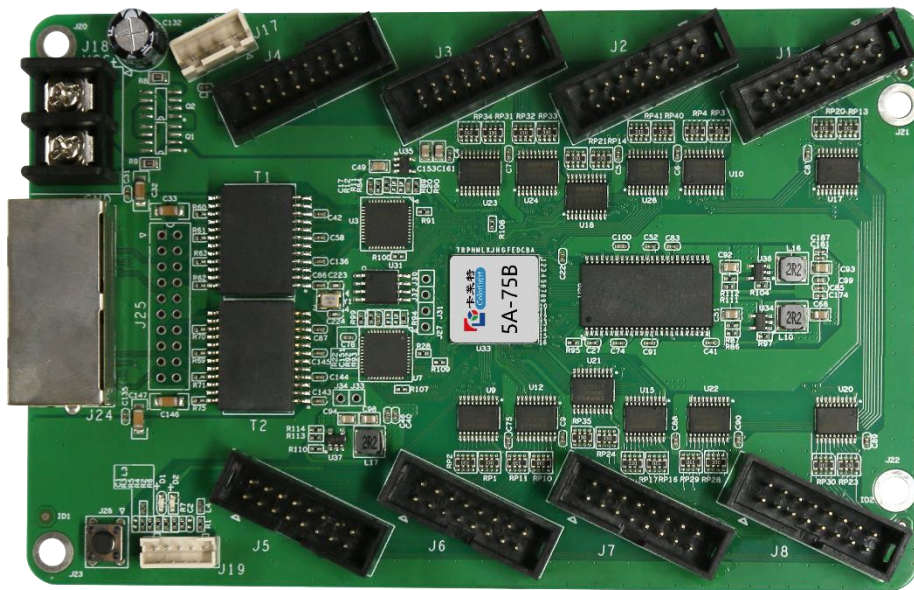
Specification

5A-75B Receiving Card

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 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.
- 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 point-by-point calibration in the brightness and the chromaticity.
- Supports conventional chips, PWM chips and lighting chips.
- Supports any scan mode from static to 64 scans.
- Supports any pumping point and data arbitrary offset and realize various freeform display, spherical display, creative display, etc.
- Supports 16 groups of RGB signal outputs.

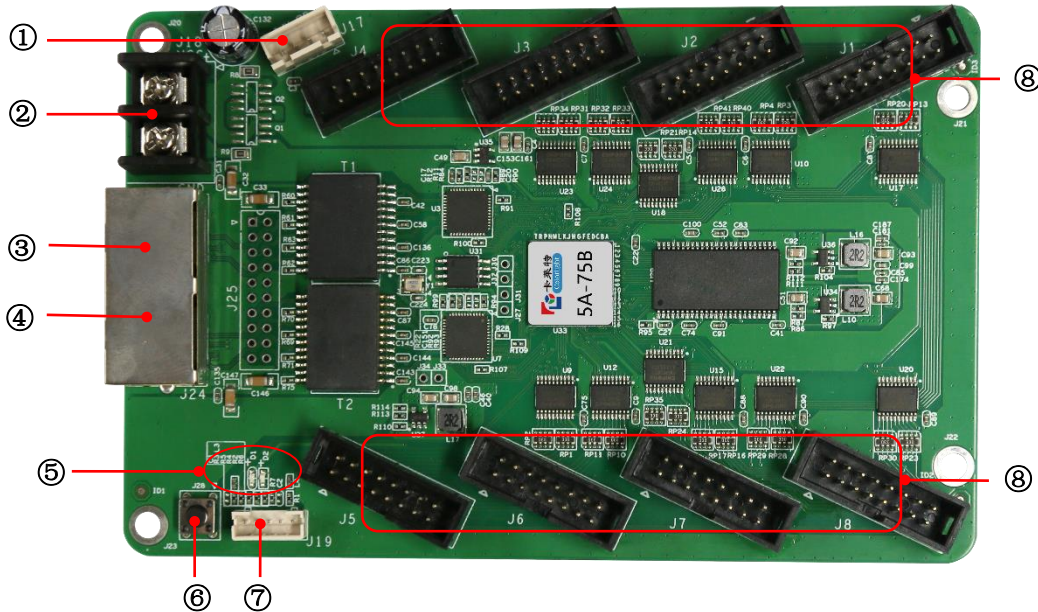
- Large loading capacity.
- Advanced design, high quality components, rigorous aging test, zero malfunction of final products.
- First adopt all components face up configuration to reduce damage.
- Wide working voltage range with DC3.3~6V.
- Compatible with all series of Colorlight's sending devices.

Specifications

Control System Parameters	
Sending device	All series of Colorlight's sending devices
Control area of every card	Full-color: 256×256 pixels
Correction area of every card	256×256 pixels
Network port exchange	Supported, arbitrary use
Synchronization	Nanosecond synchronization between cards
Display Module Compatibility	
Chip supports	Supports conventional chips, PWM chips, lighting chips and other mainstream chips
Scan type	Supports 64 scans
module specifications Support	Supports 4096 pixels within any row, any column
The direction of the cable	Supports route from left to right, from right to left, from top to bottom, from bottom to top.
Data Groups	16 RGB data groups
Data folded	Supports to fold on the same or opposite direction
Data exchange	16 data groups for any exchange
Module snapshot	Supports any pumping point
Data serial transmission	Supports RGB, R8G8B8, R16G16B16, etc. in the form of serial
Compatible Device and Interface Type	
Communication distance	UTP cable≤140m CAT6 cable≤170m Optic fiber: Single Mode Fiber Converter≤20km Multi-Mode Fiber Converter ≤550m (Use RP Repeater to extend unlimited)
Compatible with transmission equipment	Gigabit switch, fiber converter, optical switches

DC power interface	Wire terminal
HUB Interface Type	HUB75
Physical Parameters	
Size	143×93mm
Input voltage	DC 3.3V-6V
Rated current	0.6A
Rated power consumption	3W
Storage and transport temperature	-50℃~125℃
Operating Temperature	-25℃~75℃
Body static resistance	2KV
Weight	100g
Monitoring Functions (in conjunction with multi-function card)	
Monitoring functions	Real time monitoring environment information like temperature, humidity, smog
Remote Control	Supports for relay switch to turn on/off the power supply of equipments remotely
Other Features	
Pixel level calibration	Supported
Loop backup	Supported
Shaped screen	Supports various freeform display, spherical display, creative display, etc. through the data arbitrary offset.

Hardware



1. Interface

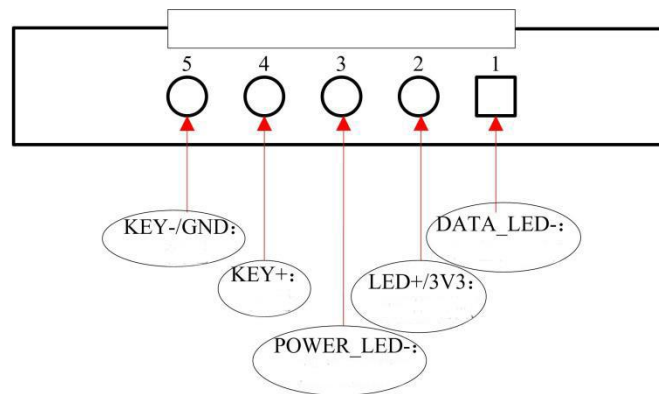
S/N	Name	Function		Remarks
1	Power 1	Connect DC 3.3~6V power supply for the receiving card		Only one is used.
2	Power 2	Connect DC 3.3~6V power supply for the receiving card		
3	Network port A	RJ45, For transmitting data signals		The dual network ports can achieve import/export at random, which can be 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	

2. 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	

3. Definition of External Interface



4. Dimension

