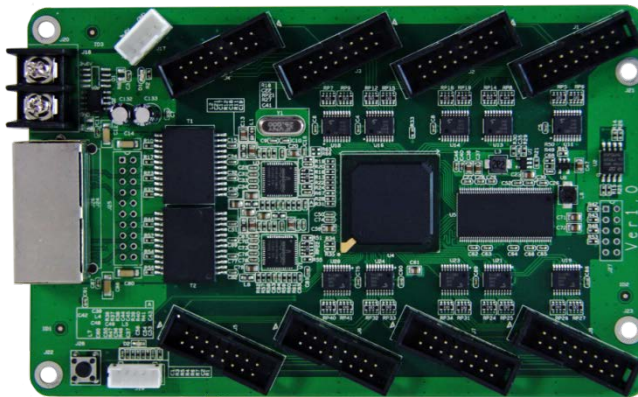# 5A-75B Receiver Card

Overview

5A-75B receiver card was designed for cost savings to customers, reduce points of fault and the fault probability.

5A-75B receiver card , based on 5A receiver card, integrate the most common HUB75, to ensure high-quality display of the premise, more reliable, more worry, more affordable.
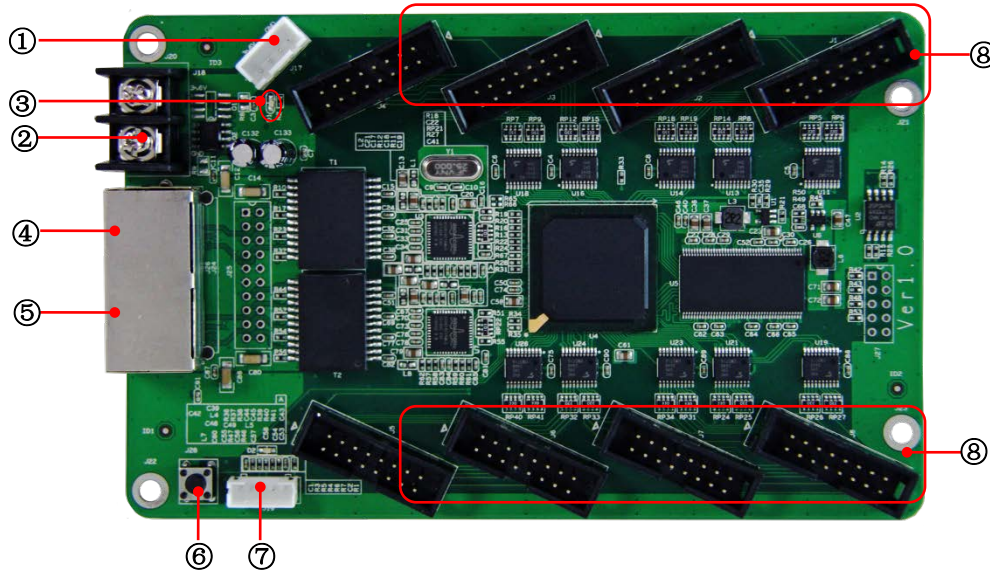

Features

• Integrated HUB75, more convenient and less costly.

• Reduce the plug connectors, reduce points of fault, lower fault probability.

• Superior display quality: high refresh, high intensity, high brightness with the conventional chips

• Superior compatibility: suitable for all types of display module of the mainstream products (5A = any row, any column, any scan ,any chips, any drawn)

• The use of more advanced algorithms, so that the receiving card to maximize the use of resources in order to improve display quality

• Support for high-precision point-by-point correction in the Brightness and the color space

• Support for large area display

• Professional design and strict production testing to ensure high quality and reliable

Specifications

Control system parameters	
Sending device	iT7 Sender , iQ7 HD Sender, iQ7E UHD Sender,　Gigabit NIC, C1 Series Sender, T8 , etc.
Control area of every card	Full-color: 256*256 Pixels, for special applications the column can be extended to 1024 pixels.
Correction area of every card	256*256 Pixels
Cascade control area of the largest regional	65536*65536 pixels
Cascade card number	65536 PCS
Network port exchange	support
Synchronization	Nanosecond synchronization between the card and the card
Display Quality	
Refresh rate for conventional chip	Static: 64*64,　4000Hz-12000Hz 1/8 scan: 128*128, 500Hz-3200Hz
Serial frequency	0.2MHz-41.7MHz
Gradation	65536
Minimum unit of OE values	8ns, 8ns multiples steps
Gray scale compensation	Each level grayscale separate compensation
Display module compatibility	
Chip supports	Support conventional chips, PWM chips, lighting chips and other mainstream chips.
PWM chip supports	Support hundreds of different specifications of the PWM chip, such as MBI5042 (requires a separate program)
Scan mode	Two scanning methods to support refresh rate multiplier
Scan type	Support static sweep to 1/32 scan
module specifications Support	Support 4096 pixels within any row, any column
The direction of the cable	Support route from left to right, from right to left, from top to bottom, from bottom to top.
Data Sets	16 RGB data sets
Data folded	Support to the fold, reverse fold, with the already discounted, such as

	refresh rate significantly improved.
Data exchange	16 sets of data any exchange
Module snapshot	Support any pumping point
Data serial transmission	RGB, R8G8B8, R16G16B16, etc. in the form of serial
Data Expansion	Support the D signal as a clock extension, the total amount of data can be extended to 32.

Compatible device and interface type

Communication distance	UTP cable≤140M CAT6 cable≤170M OPTIC FIBER transmission distance unrestricted
Compatible with transmission equipment	Gigabit switch, fiber transceiver, optical switches.
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	3W
Storage and transport temperature	-50℃ to 125℃
Operating Temperature	-25℃ to 75℃
Body static resistance	2KV
Weight	100g

Monitoring function (in conjunction with multi-function card)

Monitoring functions	Temperature, humidity, smoke, relay switch

pixel level calibration

Brightness calibration	Support
Chromaticity calibration	Support

Other features

Double backup	Support
Shaped screen	Any offset of the 16sets of data, drawn at random points, the performance of data exchange control profiled screen.

Hardware

1、Interface

S/N	Name	Function	Remarks
1	Power 1	Connect DC5V power supply for the receiver card	Only one is used.
2	Power 2	Connect DC5V power supply for the receiver card	
3	Indicate lamp	Indicate power and signal transmission status	red for power, green for signal
4	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.
5	Network port B	RJ45，For transmitting data signals	
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 Indicate lamp and test button	Two kinds of interface definitions
8	HUB pins	HUB75 Interface, connected to display modules	

2、Indicator Light functions

Red: ON for power available

Green: ON/OFF quick flash (about 5-10 times/second) indicates that the data signal transmission is normal.

3、Definitions of HUB75

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

Note: Onboard HUB75 Interface Contains D scanning signal, supporting 1/16 scan display.

4、Figure for receiving card size and hole position