

i5A Receiver Card

Overview

i5A helps to greatly improve the display effect, support higher level of color input, higher gray level output, and more delicate images; better uniformity and more gorgeous color at low gray level; higher refresh rate, more stable screen are supported.



Features

- More perfect display effect by adopting new processing core
- high refresh rate, high gray scale and high brightness
- Better detail processing: Partial dark at row, reddish at low gray, shadow problems can be solved.
- Support normal chip, PWM and lighting chip
- Support any scan mode from static to 1/32 scan
- Support various freeform display, spherical display, diamond display, creative display, etc
- Supports brightness and chromaticity calibration
- Support signal output for 16 groups of R'GBR' and 20 groups of RGB, 32 groups as extended
- Large load capacity of 256*256 pixels
- All components are dealt with face up configuration to reduce damage
- Wide working voltage range with DC3.3 -6V or DC-3.3--6V
- Compatible with iT7, iQ7, iQ7E, gigabit NIC, etc.
- Support various freeform display, spherical display, diamond display, creative display, etc
- Support signal output for 16 groups of R'GBR' and 24groups of RGB
- Large load capacity
- Advanced design, high quality components, rigorous aging test, zero malfunction of final products
- Wide working voltage range with DC3.3 -6V
- Compatible with iT7, iQ7, iQ7E, gigabit NIC, etc.

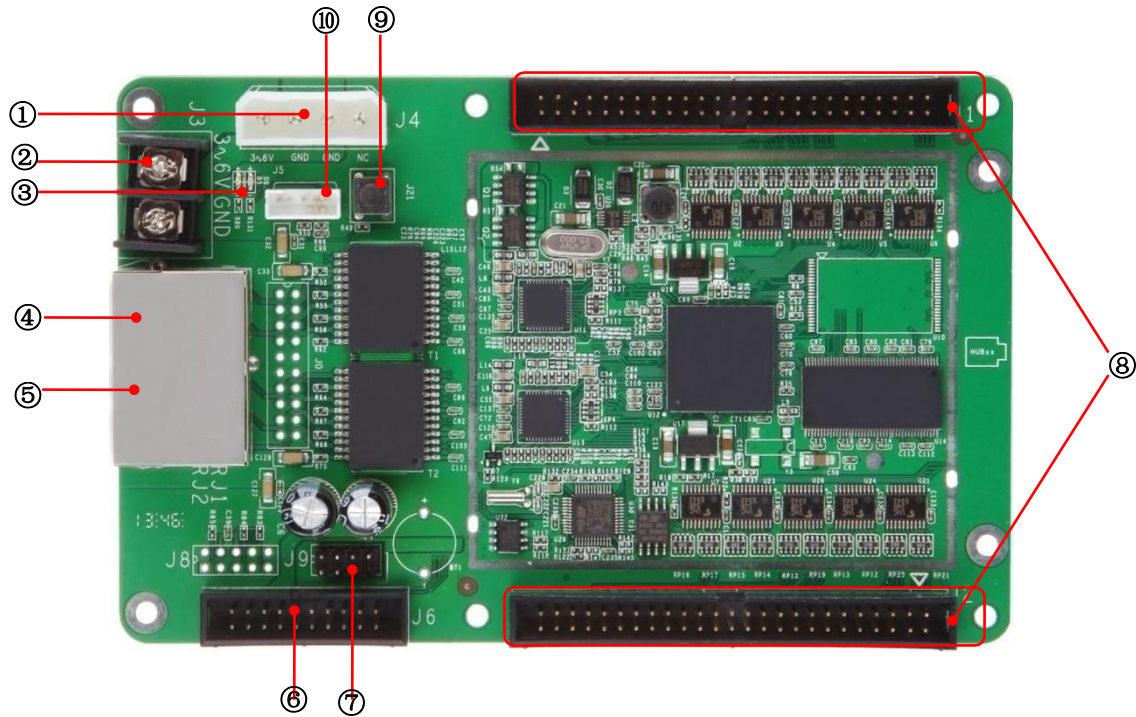
Specifications

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.
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, up to 16000Hz 1/8 scan: 128*128, up to 10000Hz
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	All types
Physical parameters	
Size	143* 93mm
Input voltage	DC 3.3V-6V
Rated current	0.6A
Rated power	3W
Storage and transport temperature	-50 °C to 125°C
Operating Temperature	-25 °C to 85°C
Body static resistance	2KV
Weight	100g
Cabinet level overall monitoring (in conjunction with monitoring module)	
Monitoring functions	Temperature, humidity, smoke, etc.
Intelligent emergency treatment	In exceptional cases ,monitoring module can automatically trigger relay switch to turn off the power or alarm
LCD display	support
Monitoring function (in conjunction with multi-function card)	
Monitoring functions	Temperature, humidity, smoke, relay switch
Remote control	Support for relay switch to turn on/off the power supply of equipments remotely

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	monitoring interface	Connect to the monitoring expansion board	
7	LCD interface	Connect to the LCD display	
8	Dual 50P pins	Connected to all display HUB boards	
9	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.	
10	External interfaces	For Indicate lamp and test button	Two kinds of interface definitions

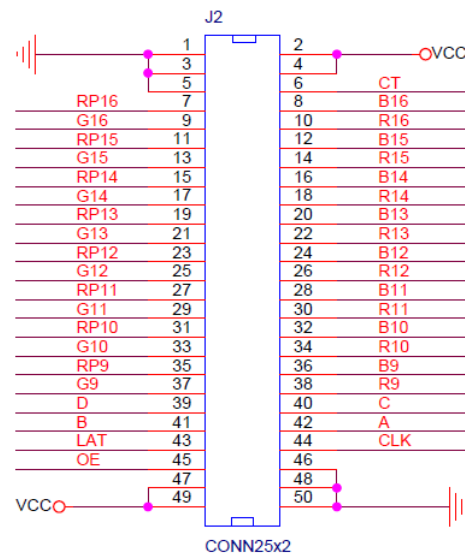
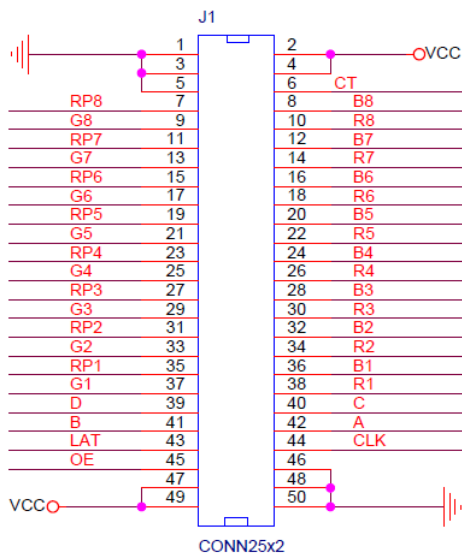
2、Indicator Light functions

Red: ON for power available

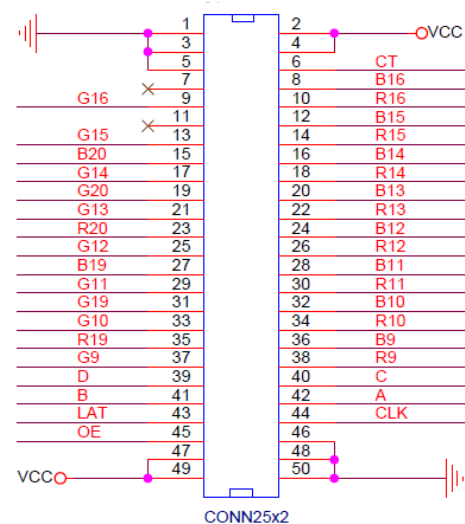
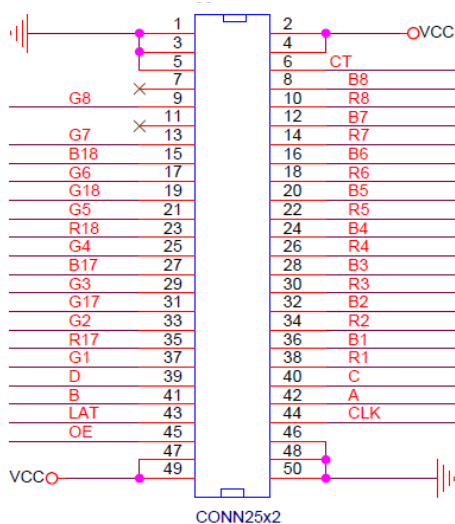
Green: ON/OFF quick flash (about 5-10 times/second) indicates that the data signal transmission is normal.

3、Definitions of 50P pins

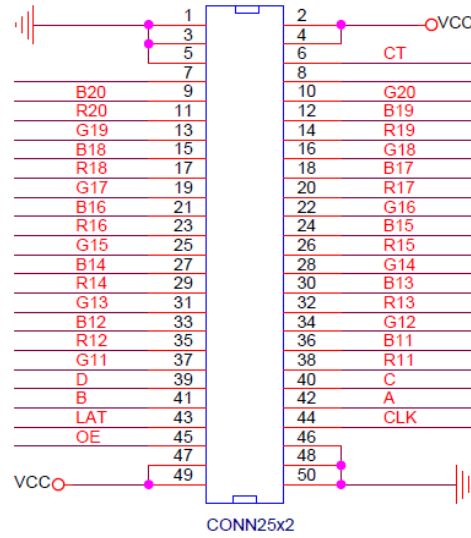
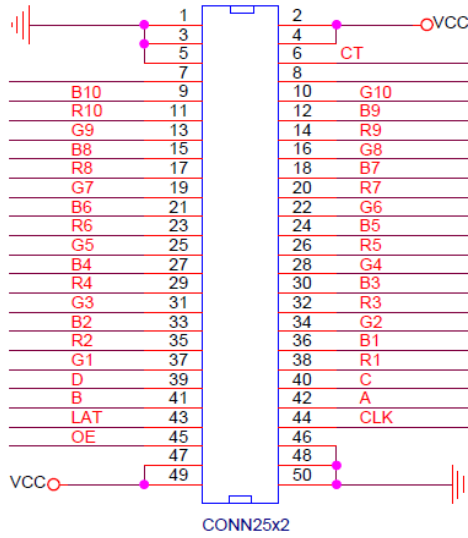
1) 16 RGBR' mode



2) 20 RGB mode (Extended mode1)



3) 20 RGB mode (Extended mode2)



4、 External interface definition

