



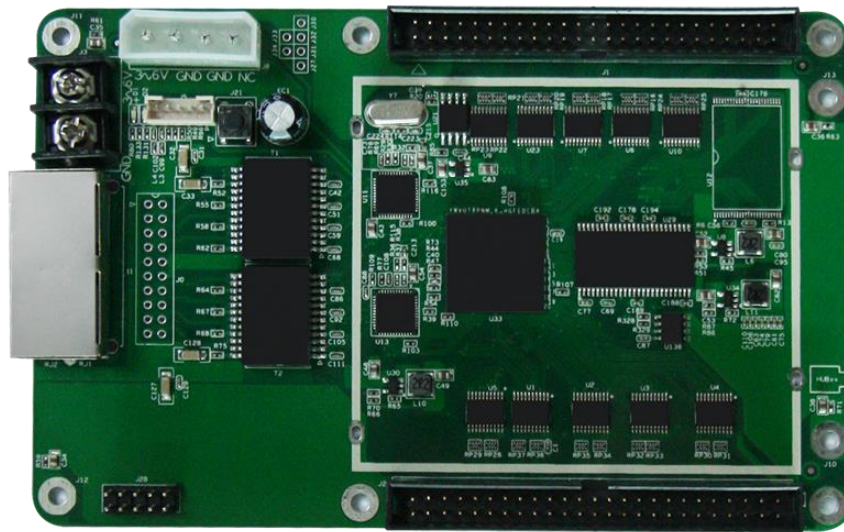
i5A Receiving Card

Specification

i5A Receiving Card

Overview

i5A adopts a new generation of image processing core, which greatly improves the display effect. Support higher level of color input and gray level output, which creates more delicate images; Great improvement has been done onto low gray scale aspect, which enhances its display effect; higher refresh rate and more stable display images are supported based on high-quality display effect.



In addition to inherit all the advantages and features 5A had, i5A adopts a new generation of system architecture, and possesses more intelligent function and more stable system. i5A receiving card supports a range of more intelligent and high-end functions like program arbitrary switching, external connect to LCD display module, etc., which lead LED control system to a brand new level.

Features

- More perfect display effect by adopting new processing core.
- High refresh rate, high gray scale and high brightness with conventional chips.
- Perfect performance under lower grayscale status.
- Better detail processing: Partial dark at row, reddish at low gray, shadow problems can be solved.

- Support the effective display at first grayscale value.
- Support 14 bits high-precision point-by-point calibration in the brightness and the chromaticity.
- Support conventional chips, PWM chips and lighting chips, etc.
- Support any scan mode from static to 1/32 scan.
- Support any pumping point and data arbitrary offset and realize various freeform display, spherical display, diamond display, creative display, etc.
- Support signal output for 16 groups of RGBR' and 20 groups of RGB, 32 groups as extended.
- Large load capacity.
- Wide working voltage range with DC 3.3 -6V.
- Support dual receiving card backup, loop backup, and dual-machine backup, etc.
- Compatible with C series Sender, Z series Sender, S series Sender, etc.

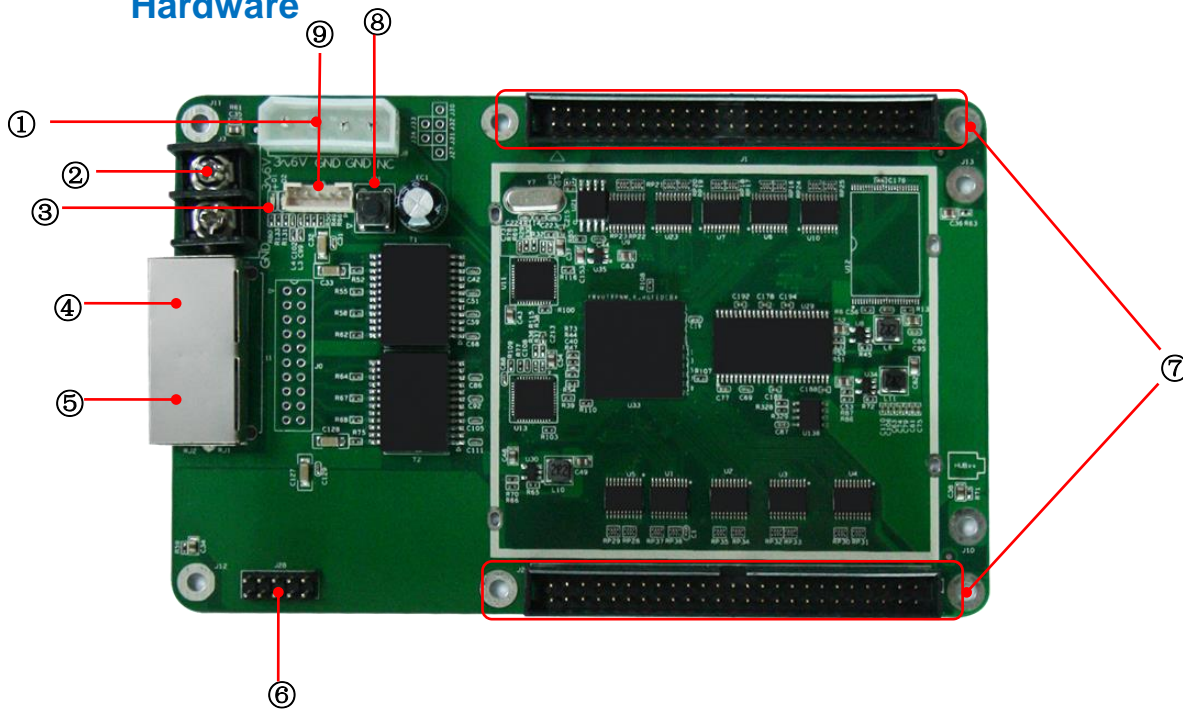
Specifications

Control system parameters	
Sending device	C Series Sender, Z Series Sender, S Series Sender, 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 arbitrary use
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
Gray Level	Maximum 65536 levels
Minimum unit of OE	8ns, 8ns multiples steps

values	
Gray scale compensation	Each level grayscale compensate separately
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 MBI, MY, SUM, etc.
Scan mode	Conventional mode and high refresh rate mode to support refresh rate multiplied
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 groups	16 RGBR' data groups, 20 RGB data groups
Data folded	Support 2 split, 4 split in the same direction and 2 split in the opposite direction, which refresh rate significantly improved
Data exchange	16 groups of data for 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: Single Mode Fiber Transceiver≤20KM Multi-Mode Fiber Transceiver ≤550M (Use RP Repeater to extend unlimited)
Compatible with transmission equipment	Gigabit switch, fiber transceiver, optical switches
DC 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 75°C
Body static resistance	2KV
Weight	100g
External interface	
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 equipment remotely
Pixel level calibration	
Brightness calibration	Support
Chromaticity calibration	Support
Other features	
Hot backup	Support loop backup and dual machine backup, seamless switch
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 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	Indicator light	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	LCD interface	Connect to the LCD display	
7	Dual 50P pins	Connected to all display HUB boards	
8	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.	
9	External interfaces	For Indicator light and test button	

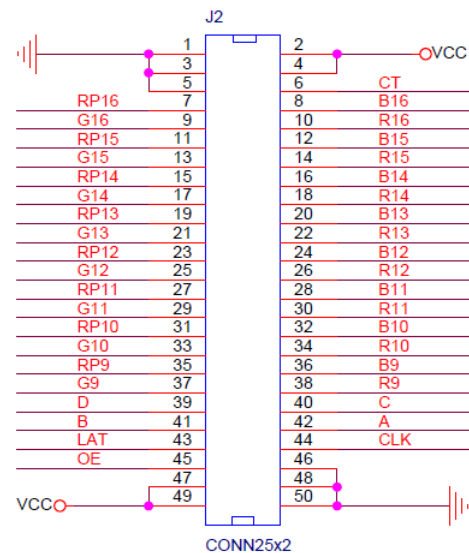
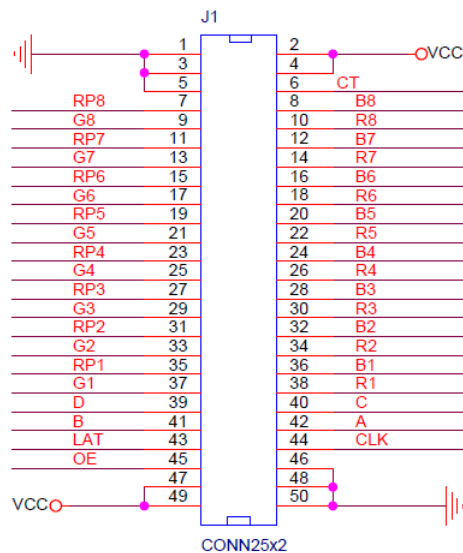
2. Indicator Light functions

Red: ON for power available

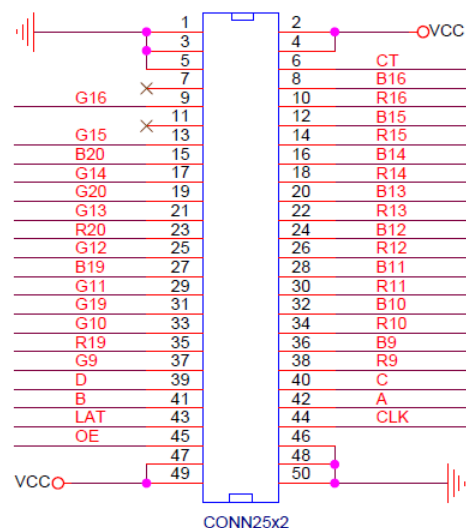
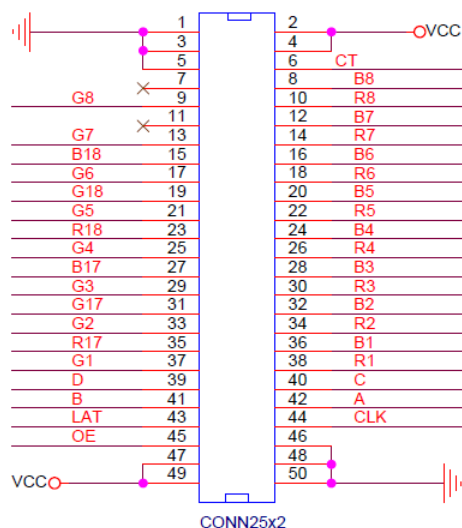
Green: ON/OFF quick flash (about 5-10 times/seconds) indicates that the data signal transmission is normal.

3. Definitions of 50P pins

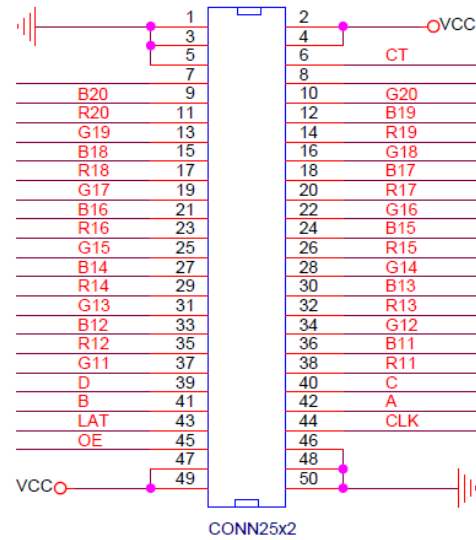
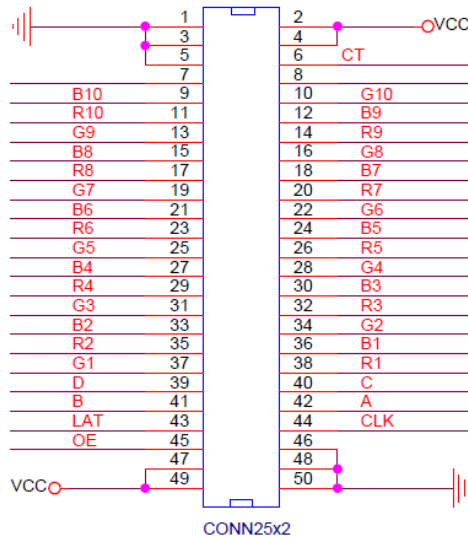
1) 16 RGBR' mode



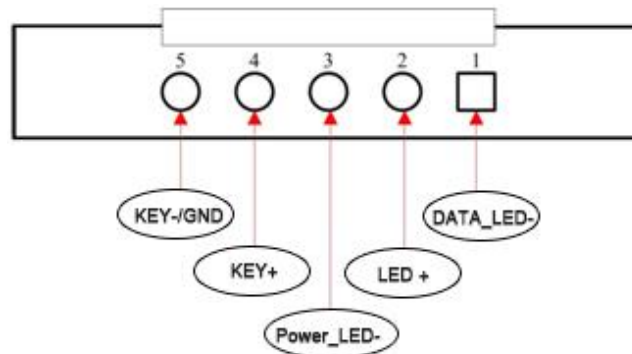
2) 20 RGB mode (Extended mode1)



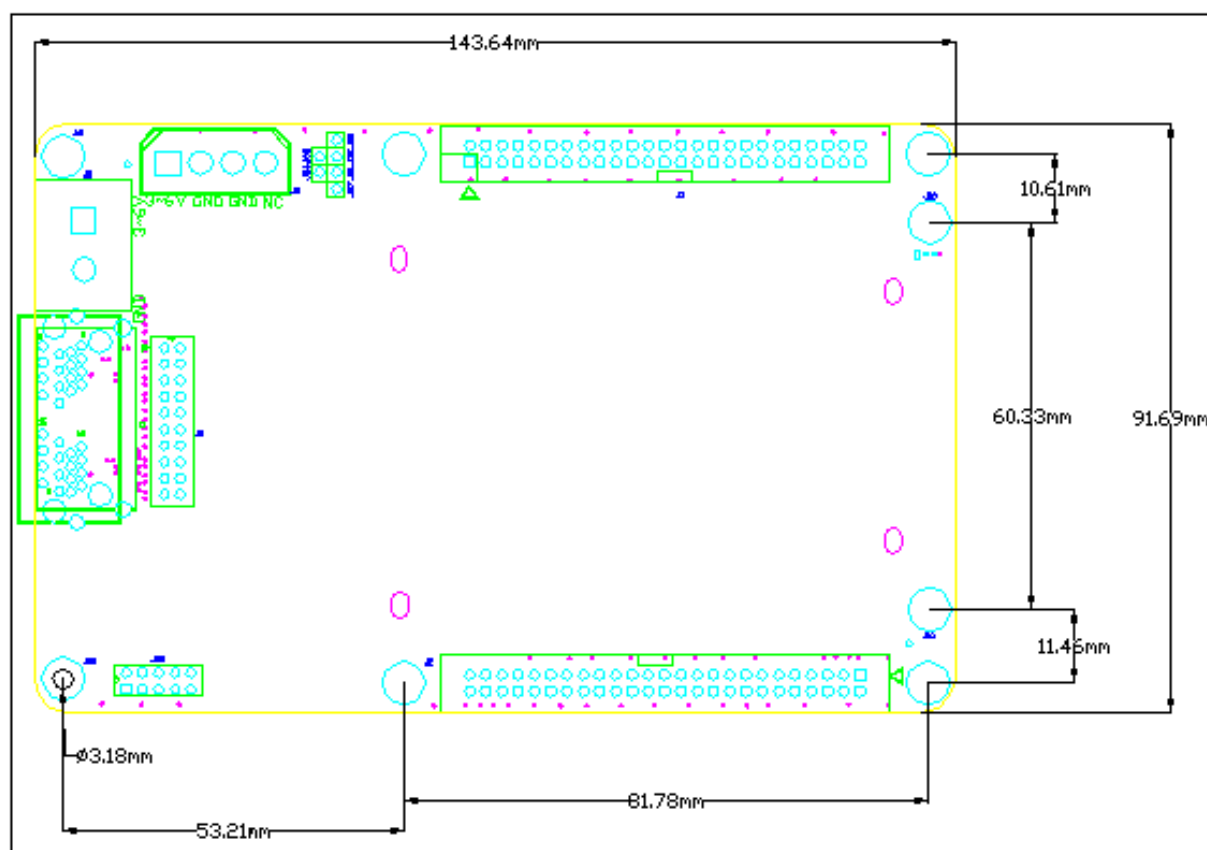
3) 20 RGB mode (Extended mode2)



4. External interface definition



5. Figure for receiving card size and hole position



Colorlight Russia and Belarus: www.powerlight.ru

