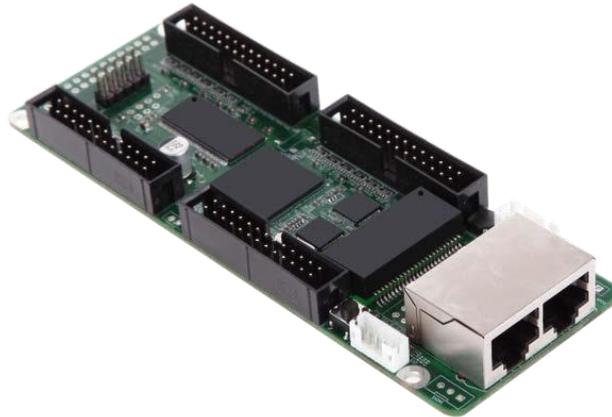


i5A-907

Overview

i5A-907 is specially designed for the compact and portable LED screens, such as LED color screen and casting aluminum cabinet. It has mini size and inherits all the advantages and features as i receiver series have.



Features

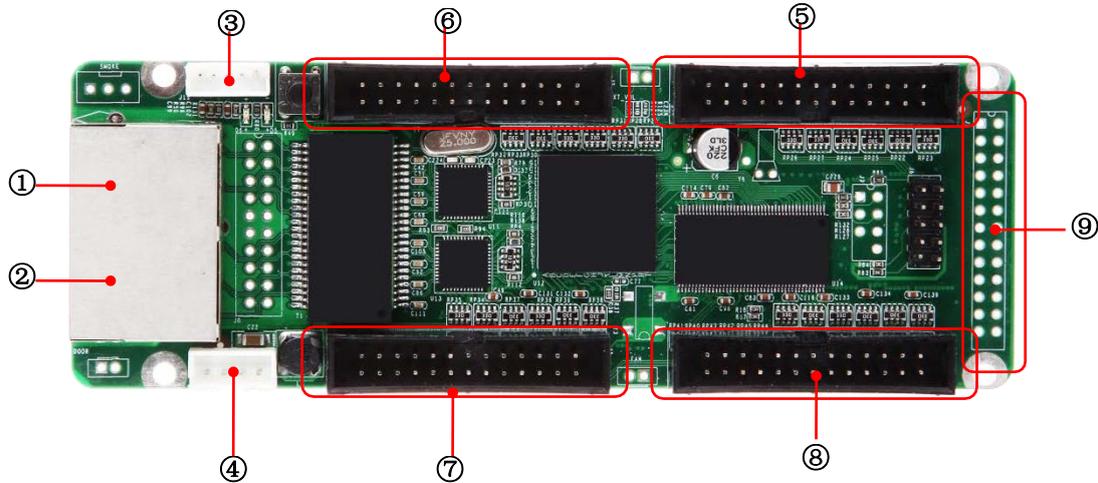
- Mini size most suitable for the compact structure designs ,like color screen and casting aluminum cabinet
- Power supply from pin board without the need of external power supply
- High refresh rate, high gray scale and high brightness
- Better detail processing: Partial dark at row, reddish at low gray, shadow problems can be solved.
- Support normal chip, PWM, lighting chip
- Support any scan mode from static to 1/32 scan
- Supports in Brightness and chromaticity calibration
- 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	Different sets in different work mode, 24 groups in the maximum
Data folded	Support to the fold, reverse fold, with the already discounted, such as refresh rate significantly improved.
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	137* 48mm
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	70g
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 function

No.	Name	function	note
1	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.
2	Network port B	RJ45 , For transmitting data signals	
3	External interfaces	For Indicate lamp and test button	Two kinds of interface definitions
4	Power	Connect DC5V power supply for the receiver card	
5	signal output J1	connect to the LED module, interface definition shown behind	
6	signal output J2	connect to the LED module, interface definition shown behind	
7	signal output J3	connect to the LED module, interface definition shown behind	
8	signal output J4	connect to the LED module, interface definition shown behind	
9	signal output J5	connect to the LED module, interface definition shown behind	

2、Signal output definitions

i5A-907 has 5 26P data output interface, and J5 and J1 output the same data. J5 is a horizontal interface, for using the special structure.

i5A-907 supports different work modes, and 26P output interface definitions is different in each work mode, which are as follows:

2.1 16 Groups Mode

JI/J5				J2				J3				J4			
1	A	B	2	1	A	B	2	1	A	B	2	1	A	B	2
3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4
5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6
7	C	D	8	7	C	D	8	7	C	D	8	7	C	D	8
9	R1	G1	10	9	R5	G5	10	9	R9	G9	10	9	R13	G13	10
11	R1'	B1	12	11	R5'	B5	12	11	R9'	B9	12	11	R13'	B13	12
13	GND	R2	14	13	GND	R6'	14	13	GND	R10	14	13	GND	R14	14
15	G2	R2'	16	15	G6	R6'	16	15	G10	R10'	16	15	G14	R14'	16
17	B2	R3	18	17	B6	R7	18	17	B10	R11	18	17	B14	R15	18
19	G3	GND	20	19	G7	GND	20	19	G11	GND	20	19	G15	GND	20
21	R3'	B3	22	21	R7'	B7	22	21	R11'	B11	22	21	R15'	B15	22
23	R4	G4	24	23	R8	G8	24	23	R12	G12	24	23	R16	G16	24
25	R4'	B4	26	25	R8'	B8	26	25	R12'	B12	26	25	R16'	B16	26

2.2 20 Groups Mode

JI/J5				J2				J3				J4			
1	A	B	2	1	A	B	2	1	A	B	2	1	A	B	2
3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4
5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6
7	C	D	8	7	C	D	8	7	C	D	8	7	C	D	8
9	E	R1	10	9	E	R6	10	9	E	R11	10	9	E	R16	10
11	G1	B1	12	11	G6	B6	12	11	G11	B11	12	11	G16	B16	12
13	GND	R2	14	13	GND	R7	14	13	GND	R12	14	13	GND	R17	14
15	G2	B2	16	15	G7	B7	16	15	G12	B12	16	15	G17	B17	16
17	R3	G3	18	17	R8	G8	18	17	R13	G13	18	17	R18	G18	18
19	B3	GND	20	19	B8	GND	20	19	B13	GND	20	19	B18	GND	20
21	R4	G4	22	21	R9	G9	22	21	R14	G14	22	21	R19	G19	22
23	B4	R5	24	23	B9	R10	24	23	B14	R15	24	23	B19	R20	24
25	G5	B5	26	25	G10	B10	26	25	G15	B15	26	25	G20	B20	26

2.3 24 Groups Mode

Support 1/4 scanning, 24 groups RGB parallel output; for 1/5~1/32, there need a serial decoding circuit as shown below.

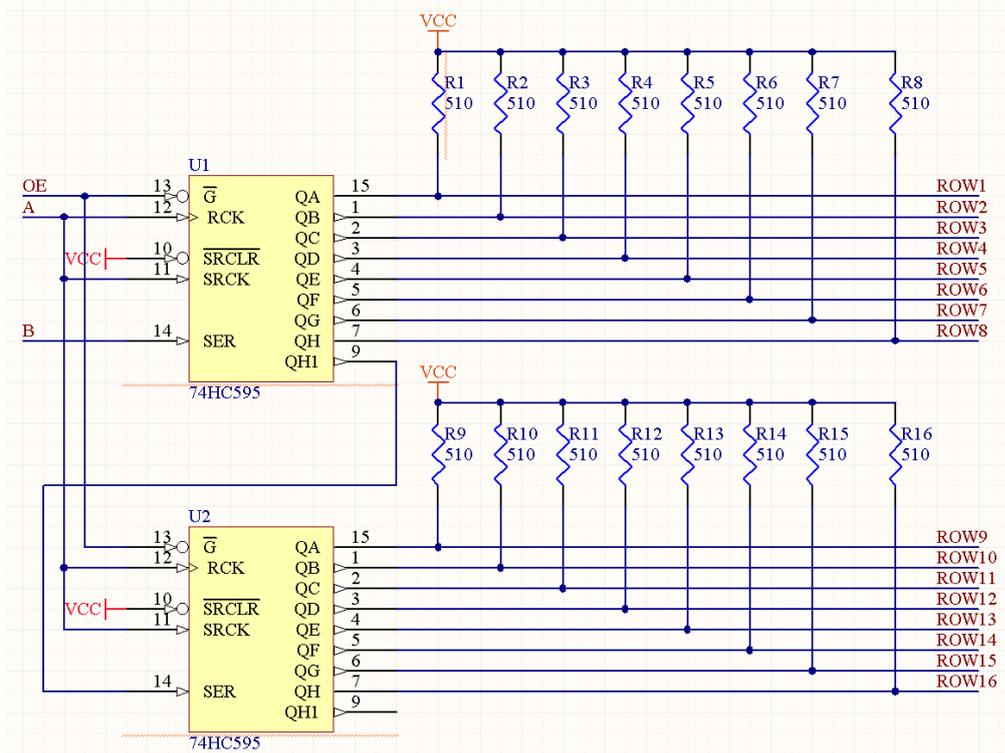
JI/J5				J2				J3				J4			
1	A	B	2	1	A	B	2	1	A	B	2	1	A	B	2
3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4	3	OE	LAT	4
5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6	5	CLK	VCC	6
7	R1	G1	8	7	R7	G7	8	7	R13	G13	8	7	R19	G19	8
9	B1	R2	10	9	B7	R8	10	9	B13	R14	10	9	B19	R20	10
11	G2	B2	12	11	G8	B8	12	11	G14	B14	12	11	G20	B20	12
13	GND	R3	14	13	GND	R9	14	13	GND	R15	14	13	GND	R21	14
15	G3	B3	16	15	G9	B9	16	15	G15	B15	16	15	G21	B21	16
17	R4	G4	18	17	R10	G10	18	17	R16	G16	18	17	R22	G22	18
19	B4	GND	20	19	B10	GND	20	19	B16	GND	20	19	B22	GND	20
21	R5	G5	22	21	R11	G11	22	21	R17	G17	22	21	R23	G23	22
23	B5	R6	24	23	B11	R12	24	23	B17	R18	24	23	B23	R24	24
25	G6	B6	26	25	G12	B12	26	25	G18	B18	26	25	G24	B24	26

2.4 16 Groups Serial Mode

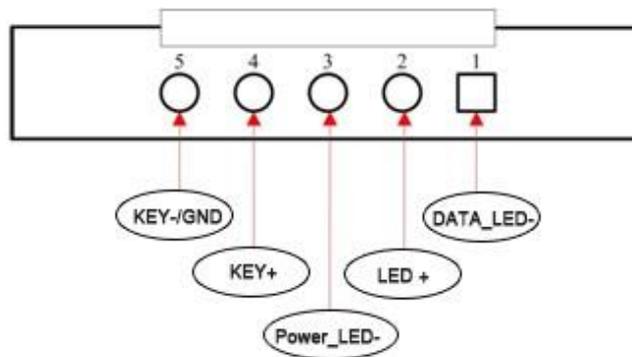
Only J1 and J5 works, output the same data.

JI/J5			
1	A	B	2
3	OE	LAT	4
5	CLK	VCC	6
7	C	D	8
9	R1	R2	10
11	R3	R4	12
13	GND	R5	14
15	R6	R7	16
17	R8	R9	18
19	R10	GND	20
21	R11	R12	22
23	R13	R14	24
25	R15	R16	26

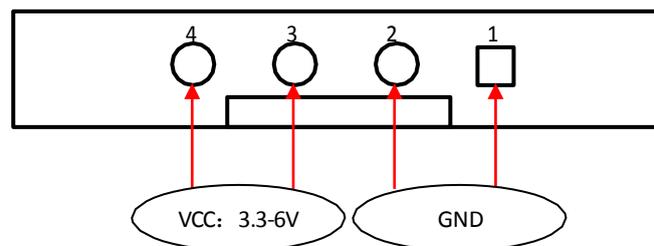
3、Serial decoding circuit



4、 External interface definition



5、 Power interface pin definition



6、 Figure for receiving card size and hole position

Unit : mm

