Receiver RV907H

V1.0 Jan 2018

1. Function

- 1) Single card can output 16 groups RGBR' data;
- 2) Single card can output 20 groups RGB data;
- 3) Single card can output 24 groups RGB data;
- 4) Single card can output 32 groups serial data;
- 5) Single card maximum supports 1024X256 pixels (Please note that there are recommended values depending on the design

of LED screen);

- 6) Each interface has VCC pin to get power supply for control system from led module, no need to get extra power supply for control system;
 - 7) Support temperature detection;
 - 8) Support the cabinet-door monitoring (open/close);
 - 9) Two lines fan-speed monitoring;
 - 10) Humidity monitoring (humidity sensor sold separately);
 - 11) Smoke monitoring (smoke module sold separately);
- 12) Three lines voltage monitoring: one for the system, two for cabinet power;
- 13) Support pixel-by-pixel brightness calibration; single-card color space conversion;
 - 14) Support network cable BER test;
- 15) Support hot backup with dual receiver cards for demanding performances screen;
- 16) High refresh rate and high grey level with most of the driver ICs;
 - 17) In line with EU standards RoHS;
 - 18) In line with EU standards CE-EMC class B.

2.RV907H OUTPUT

1) Normal mode (default mode)

Support full-color screen, virtual full-color screen and double-color display, there are 16 groups RGBR' data In normal mode, 26pin is defined as follow.

A	1	2	В
OE	3	4	LAT
CLK	5	6	VCC
C	7	8	D
R1	9	10	G1
R1'	11	12	U1
GND	13	14	R2
G2	15	16	R2'
U2	17	18	R3
G3	19	20	GND
R3'	21	22	U3
R4	23	24	G4
R4'	25	26	U4

2)20 group data mode (Select 20 data for RV907 in card mode option of LEDStudio)

Only for full color screen; each interface has 5 groups of data.

The 26PIN defined as follow

A	1	2	В	
OE	3	4	LAT	
CLK	5	6	VCC	
C	7	8	D	
E	9	10	R1	
G1	11	12	U1	
GND	13	14	R2	
G2	15	16	U2	
R3	17	18	G3	
U3	19	20	GND	

```
R4 21 22 G4
U4 23 24 R5
G5 25 26 U5
```

3) 24 groups data mode (Select 24 data for RV907 in card mode option of LEDStudio)

Only for full color screen, 4 scan mode or up needs serial decodes or switching triode with serial decoding. As for serial decoding circuit, please see Appendix. 26Pin is defined as follow, and each interface has 6 groups' data

```
Α
OE
       3
              4
                     LAT
CLK
      5
                     VCC
R1
                     G1
U1
       9
              10
                     R2
              12
                     U2
G2
      11
              14
GND
      13
                     R3
G3
       15
              16
                     U3
R4
       17
              18
                     G4
U4
       19
              20
                     GND
R5
       21
              22
                     G5
U5
       23
              24
                     R6
       25
G6
              26
                     U6
```

4) 16 groups or 64 groups serial data mode

Support full-color screen, virtual full-color screen and double-color screen.

Only interface-1 output the valid data with 16-group mode; all the interfaces output valid data with 64-group mode

```
A 1 2 B
OE 3 4 LAT
CLK 5 6 VCC
```

C	/	8	D
R1	9	10	R2
R3	11	12	R4
GND	13	14	R5
R6	15	16	R7
R8	17	18	R9
R10	19	20	GND
R11	21	22	R12
R13	23	24	R14
R15	25	26	R16

3.RV907H on-board monitoring

Interface on Receiving card(see the silk-screen)	Function	Usage
FAN	2 lines fan speed monitoring	Fan with Control Line
DOOR	cabinet door open/close monitoring	To form Open/close circle
VOLT	voltage monitoring	Connect to VCC
SMOKE	smoke monitoring	Smoke monitoring module SK901 is sold separately
HUM	humidity monitoring	Humidity monitoring module is sold separately
LCD	LCD module for displaying real-time monitoring information	LCD monitoring module is sold separately

4.Dimensions

5.Model table

RV907H and RV927H are in stock. RV917H and RV937H need make to order.

Model	RJ45 Direction	output interface type
RV907H	90 Degree	interface in front side
RV917H	180 Degree	interface in front side
RV927H	90 Degree	interface at the back side
RV937H	180 Degree	interface at the back side

6. Working conditions

Rated voltage (V)	5	maximum value	5.5	Minimum value	4.5
Rated current (A)	0.80	maximum value	0.87	Minimum value	0.73
Rated power consumpti on (W)	4.0	maximum value	4.8	Minimum value	3.3
Working te	mperature (\mathbb{C})	-20°C ~ 70	$^{\circ}\mathbb{C}$	

Working humidity (%)

0% ~ 95%

Appendix1.Serial circuit

END