LINSN SOM202 Mini LED Receiving Card

Module Card

SOM202

V 1.0
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1. Features

SOM202 card is one of our latest promoted products: SOM (System on Module). Compared with traditional receiving cards, SOM202 has following advantages: (1) Smaller size: 60mm*28mm; Such mini size can save space, reduce external cables, and simplify the design of screen structure. (2) Data output interface, adopting Dual row Pin Header/Female Header(P2.0 space), can be directly plugged into driver board and finally realize the integrated design of system and module. (3) Such module card, using 100mbps signal transmission mode, can reduce the quantity of signal transmission lines.

As to the limitation of screen space, protection of screens, after-sales service and price, SOM202 card provides perfect solutions. And will also provide competitive advantage for the design of differentiated products.

The use of SOM202 card must work with TP201(Switch). The function of TP201 is to transfer the gigabit signal from sending card into 100mbps signal.

SOM202 card is mainly applied to strips screen, grid screen, LED light source, irregular screen and normal screen. The followings are the features:

1.Has all the functions of the 9th generation receiving card;
2.Single card supports 4 groups of RGB parallel-data signal, 16 groups of serial-data output and 4 way clock signal;
3.Supports high refresh rate and high gray scale(up to 65536 level);
4.Supports general chip, PWM chip and other common Led driver ICs;
5.Supports any type of scanning mode(within 32) and serial decode scanning mode that uses 74HC595 and so on;
6.Supports brightness and color pixel-by-pixel calibration;
7.Single card supports up to 2560 pixels; on static scanning mode, the refresh rate can reach to 6000HZ; brightness can be adjusted manually;
8.Supports single-card color space conversion;

9.Supports configuration file read-back；
10.Requires only one twisted pair in Cat5e cable to convey signal, thus video signal and power can transfer with only one cable；
11. Irregular led screen configuration: position of one card can be set as needed, and image driving by one card can be rotated in four directions；
12. Supports 100Mbps signal hot-backup；
13.Circuits of LED panel and SOM card can be integrated on one section, which is easy for repairing and saving money for after-sales service；
14. Compliant with RoHS；
15.Compliant with CE-EMC: with a totally enclosed shielding case, the card can prevent electromagnetic interference, and pass EMC test easily; a small size provides a better condition for water proof design.

2. Appearance

Fig.1 SOM202
fIR
SOM202 with female sockets(as the picture above) is in stock.If you require male connectors, please make an order .(The connectors can be soldered on either front side or back side)

3. Dimensions

Fig.2 Mounting holes of SOM202 （unit：mm）

4. Pinout

1）Pinout for the data output

Fig3 Pinout for parallel signal
5-group parallel data mode is as follows:
J1D

	1	2	
R1			G1
	3	4	
B1			R2
	5	6	
G2			B2
	7	8	
R3			G3
	9	10	

	B3			R4	
		11	12		
	G4			B4	
		13	14		
	R5			G5	
	B5	15	16	LAT	
	CLK1	17	18	CLK2	
	OE	19	20	GND	

J2D

	CLK3	1	2	CLK4/Data 15	
	VCC	3	4	VCC	
	GND	5	6	GND	
	A	7	8	B	
	C	9	10	D	
Differential signal input/output+	Din1	11	12	Din2	Differential signal input/output-
Differential signal input/output+	Dout1	13	14	Dout2	Differential signal input/output-

Fig4 Pinout for serial signal

15-group serial data mode is as follows:

J1D

		1	2		
	Data0			Data1	

		3	4		
	Data2			Data3	
		5	6		
	Data4			Data5	
		7	8		
	Data6			Data7	
		9	10		
	Data8			Data9	
		11	12		
	Data10			Data11	
		13	14		
	Data12			Data13	
		15	16	LAT	
	Data14				
	CLK1	17	28	CLK2	
	OE	19	20	GND	
J2D					
	CLK3	1	2	CLK4	
	VCC	3	4	VCC	
	GND	5	6	GND	
	A	7	8	B	
	C	9	10	D	
Differential signal input/output+	Din1	11	12	Din2	Differential signal input/output-
Differential signal input/output+	Dout1	13	14	Dout2	Differential signal input/output-

2) Pinout for data input

SOM202 should work with TP201(a switch for transforming signal to a 100Mbps type). See the mounting holes of TP201 as follows.

Fig 5 Mounting holes of Switch TP201（unit :mm）

5. Working conditions

	Average	Minimum	Maximum	Unit
Rated Voltage	4	3.3	4.8	W
Working Voltage	5	4.5	5.5	V
Working Current	0.8	0.73	0.87	A
Working Temperature		-20	70	℃
Working Humidity		0	95	%

END