RAYSTAR

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RFC570D-AIW-DNS

SPECIFICATION

General Specifications

- Dot Matrix: 320 x RGB x 240(TFT)

- Module dimension: 126.00(W) x 101.55(H) x 7.5(D)(MAX) mm

- Active area: 115.2 x 86.40 mm

- Dot pitch: 0.12 x 0.36 mm

- LCD type: TFT, Normally White, Transmissive

- View Direction: 12 o'clock

- Gray Scale Inversion Direction: 6 o'clock

- Aspect Ratio: 4:3

- Backlight Type: LED, Normally White

- Touch Panel: Resistive Touch Panel

- Surface: Anti-Glare

*Color tone slight changed by temperature and driving voltage.

Interface

LCM PIN Definition

Pin No.	Symbol	I/O	Description
1	IF1	I	Input data format control (Note1)
2	IF2	I	Input data format control (Note1)
3	POL	O	Polarity Signal connect to VCOM driving circuit.
4	RESET	I	Hardware reset.
5	SPENA	I	Chip select
6	SPCL	I	Serial Clock
7	SPDA	I/O	Serial Data
8	B0	I	Blue Data bit (LSB)
9	B1	I	Blue Data bit
10	B2	I	Blue Data bit
11	B3	I	Blue Data bit
12	B4	I	Blue Data bit
13	B5	I	Blue Data bit
14	B6	I	Blue Data bit
15	B7	I	Blue Data bit(MSB)
16	G0	I	Green Data bit(LSB)
17	G1	I	Green Data bit
18	G2	I	Green Data bit
19	G3	I	Green Data bit
20	G4	I	Green Data bit
21	G5	I	Green Data bit
22	G6	I	Green Data bit
23	G7	I	Green Data bit(MSB)
24	R0	I	Red Data bit(LSB)
25	R1	I	Red Data bit
26	R2	I	Red Data bit
27	R3	I	Red Data bit
28	R4	I	Red Data bit
29	R5	I	Red Data bit
30	R6	I	Red Data bit

31	R7	I	Red Data bit(MSB)
32	Hsync	I	Horizontal synchronous signal
33	Vsync	I	Vertical synchronous signal
34	Data CLK	I	Dot data clock
35	AVDD	I	Analog power: 4.5V~5.5V
36	AVDD	I	Analog power: 4.5V~5.5V
37	Vcc	I	Digital power: 3V~3.6V
38	Vcc	I	Digital power: 3V~3.6V
39	NPC	O	NTSC/PAL mode Auto detection result H:NTSC/L:PAL
40	VGL	I	Gate off power
41	VGL	I	Gate off power
42	UD	I	Up/Down scan setting. H: Reverse scan / L: Normal scan
43	VGH	I	Gate on power
44	LRC	I	Shift direction of device internal shift register control.
45	GND	I	GROUND
46	VCOM	I	VCOM driving input
47	VCOM	I	VCOM driving input
48	ENB	I	Data enable input. Normally pull low.
49	GND	I	GROUND
50	GND	I	GROUND

Contour Drawing
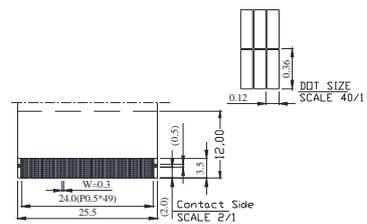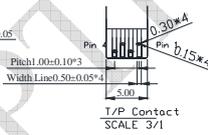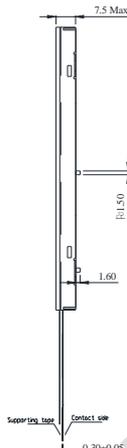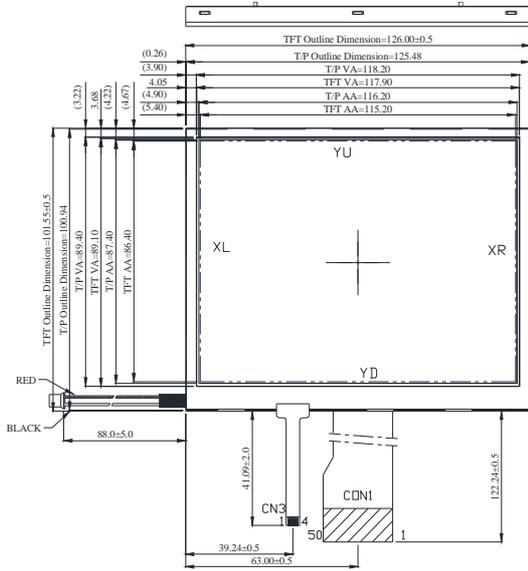
2	IF2	22	G6	42	UD		
3	POL	23	G7	43	VGH		
4	RESET	24	R0	44	LRC		
5	SPENA	25	R1	45	GND		
6	SPCL	26	R2	46	VCOM		
7	SPDA	27	R3	47	VCOM		
8	B0	28	R4	48	ENB		
9	B1	29	R5	49	GND		
10	B2	30	R6	50	GND		
11	B3	31	R7				
12	B4	32	Hsync	CN2			
13	B5	33	Vsync	RED	+		
14	B6	34	Data CLK	BLACK	−		
15	B7	35	AVDD				
16	G0	36	AVDD	CN3			
17	G1	37	Vcc	1	XL		
18	G2	38	Vcc	2	YD		
19	G3	39	NPC	3	XR		
20	G4	40	VGL	4	YU		

The non-specified tolerance of dimension is ± 0.3mm.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	VCC	—	3.0	3.3	3.6	V
Input High Volt.	V_{IH}	—	0.7 VCC	—	VCC	V
Input Low Volt.	V_{IL}	—	0	—	0.3 VCC	V
LCD Driving Supply Voltage	V_{GH} *1	Ta=25℃		15		V*3
	V_{GL}*2			-10		
	VcomH		2.5		5.5	
	VcomL		-2.0		0	
Supply Current	I_{VCC}	VCC=3.3V	—	5	8	mA