



RAYSTAR

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RFC350L-AIW-DNG SPECIFICATION

General Specifications

- Size: 3.5 inch
- Dot Matrix: 320 x RGB x 240(TFT) dots
- Module dimension: 76.84x 63.84x 4.86 mm
- Active area: 70.08 x 52.56 mm
- Dot pitch: 0.073 x 0.219 mm
- LCD type: TFT, Normally White, Transmissive
- TFT Driver IC: HX8238 or Equivalent
- TFT Interface: 24-bit RGB Or option other mode
- View Direction: 12o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: 4:3
- PCAP IC: ILI2130 or equivalent
- PCAP Interface : I2C
- PCAP FW Version: : 0x07.0x00.0x00.0x00.0x00.0x35.0x5A.0x01
- PCAP Resolution:16384*16384
- Backlight Type : LED ,Normally White
- Touch Panel : Projected capacitive touch screen (PCAP)
- Surface: Glare

*Color tone slight changed by temperature and driving voltage.

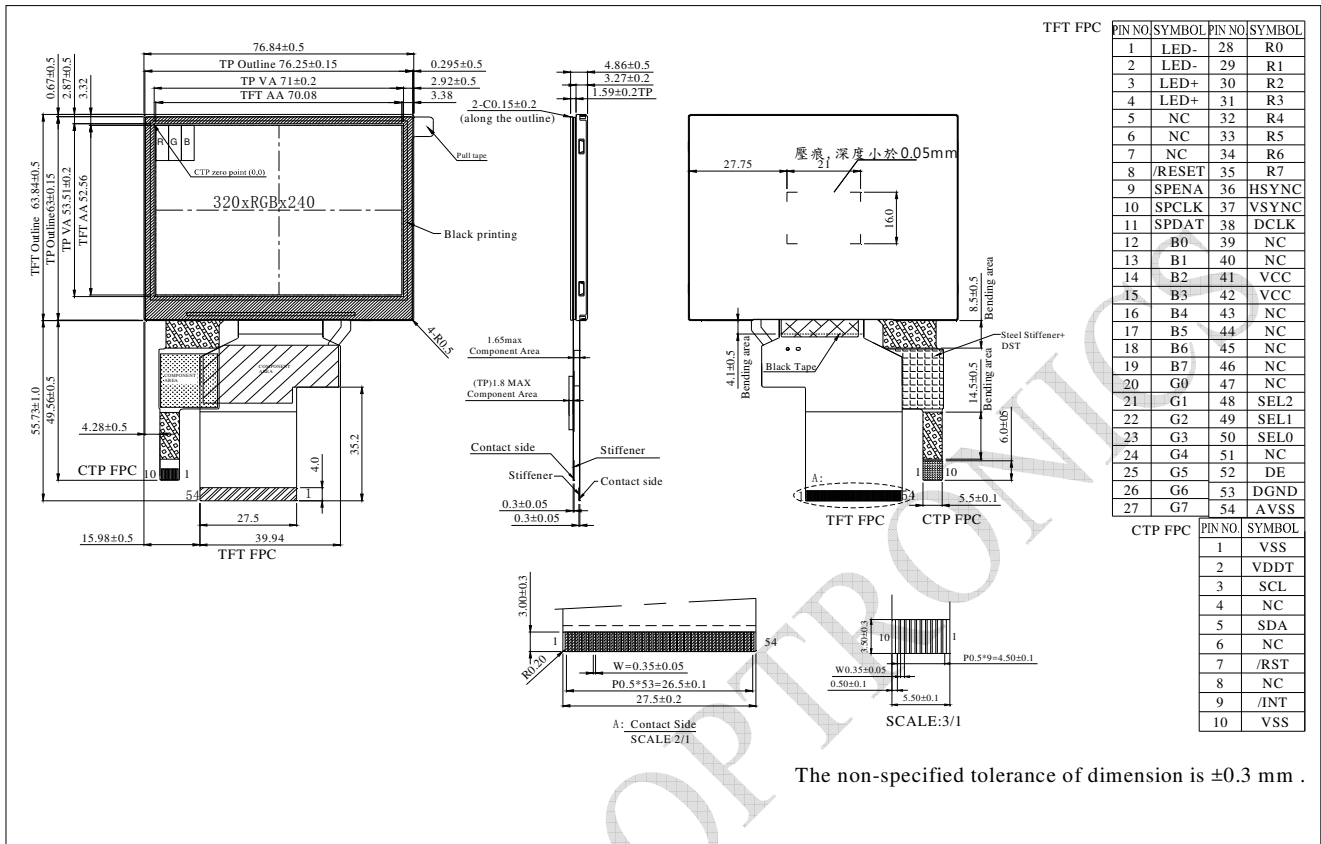
Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	LED-	Power for LED backlight cathode
2	LED-	Power for LED backlight cathode
3	LED+	Power for LED backlight anode
4	LED+	Power for LED backlight anode
5	NC	No connect
6	NC	No connect
7	NC	No connect
8	/RESET	Hardware reset
9	SPENA	Chip select pin of serial interface
10	SPCLK	Clock pin of serial interface (SPCK)
11	SPDAT	Data input pin in serial mode(SPDA)
12	B0	Data bus
13	B1	Data bus
14	B2	Data bus
15	B3	Data bus
16	B4	Data bus
17	B5	Data bus
18	B6	Data bus
19	B7	Data bus
20	G0	Data bus
21	G1	Data bus
22	G2	Data bus
23	G3	Data bus
24	G4	Data bus
25	G5	Data bus
26	G6	Data bus
27	G7	Data bus
28	R0	Data bus
29	R1	Data bus

30	R2	Data bus
31	R3	Data bus
32	R4	Data bus
33	R5	Data bus
34	R6	Data bus
35	R7	Data bus
36	HSYNC	Line synchronization signal
37	VSYNC	Frame synchronization signal
38	DCLK	Dot-clock signal and oscillator source
39	NC	No connect
40	NC	No connect
41	VCC	Power Supply
42	VCC	Power Supply
43~47	NC	No connect
48	SEL2	Input pin to select input interface mode
49	SEL1	Input pin to select input interface mode
50	SEL0	Input pin to select input interface mode
51	NC	No connect
52	DE	Display enable pin from controller. Internal pull high Connect to VDDIO or floating if not used
53	DGND	System ground pin of the IC. Connect to system ground.
54	AVSS	Grounding for analog circuit. Connect to system ground

Contour Drawing



TFT FPC		PIN NO	SYMBOL	PIN NO	SYMBOL
1	LED-	28	R0		
2	LED-	29	R1		
3	LED+	30	R2		
4	LED+	31	R3		
5	NC	32	R4		
6	NC	33	R5		
7	NC	34	R6		
8	/RESET	35	R7		
9	SPENA	36	HSYNC		
10	SPCLK	37	VSYSN		
11	SPDAT	38	DCCLK		
12	B0	39	NC		
13	B1	40	NC		
14	B2	41	VCC		
15	B3	42	VCC		
16	B4	43	NC		
17	B5	44	NC		
18	B6	45	NC		
19	B7	46	NC		
20	G0	47	NC		
21	G1	48	SEL2		
22	G2	49	SEL1		
23	G3	50	SEL0		
24	G4	51	NC		
25	G5	52	DE		
26	G6	53	DGND		
27	G7	54	AVSS		
CTP FPC		PIN NO	SYMBOL		
1		VSS			
2		VDDT			
3		SCL			
4		NC			
5		SDA			
6		NC			
7		/RST			
8		NC			
9		/INT			
10		VSS			

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

Absolute Maximum Ratings

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

Electrical Characteristics

1. Operating conditions:

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VCC	3.0	3.3	3.6	V
Supply Current For LCM	ICC	—	8.6	15	mA
Supply CTP	VDDT	3.0	3.3	3.6	V
	I _{CTP}	—	45	68	mA

2. LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current		-	20	-	mA
Power Consumption		336	384	408	mW
LED voltage	LED+	16.8	19.2	20.4	V
LED Life Time		-	50,000	-	Hr