



**RAYSTAR**

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**RFC57DD-AIW-DNG**

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## **SPECIFICATION**

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## General Specifications

- Size: 5.7 inch
- Dot Matrix: 320 x RGB x 240(TFT) dots
- Module dimension: 126.00(W) x 101.55(H) x 8.235(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
- Interface: 24-bit RGB
- Aspect Ratio: 4:3
- Backlight Type: LED, Normally White
- PCAP FW Version: FT5426
- PCAP Interface: I2C
- PCAP IC: FN058A001\_FT5426\_V02\_20180604\_all.bin
- Touch Panel: PCAP
- Surface: Glare

\*Color tone slight changed by temperature and driving voltage.

## Interface

### 1. 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

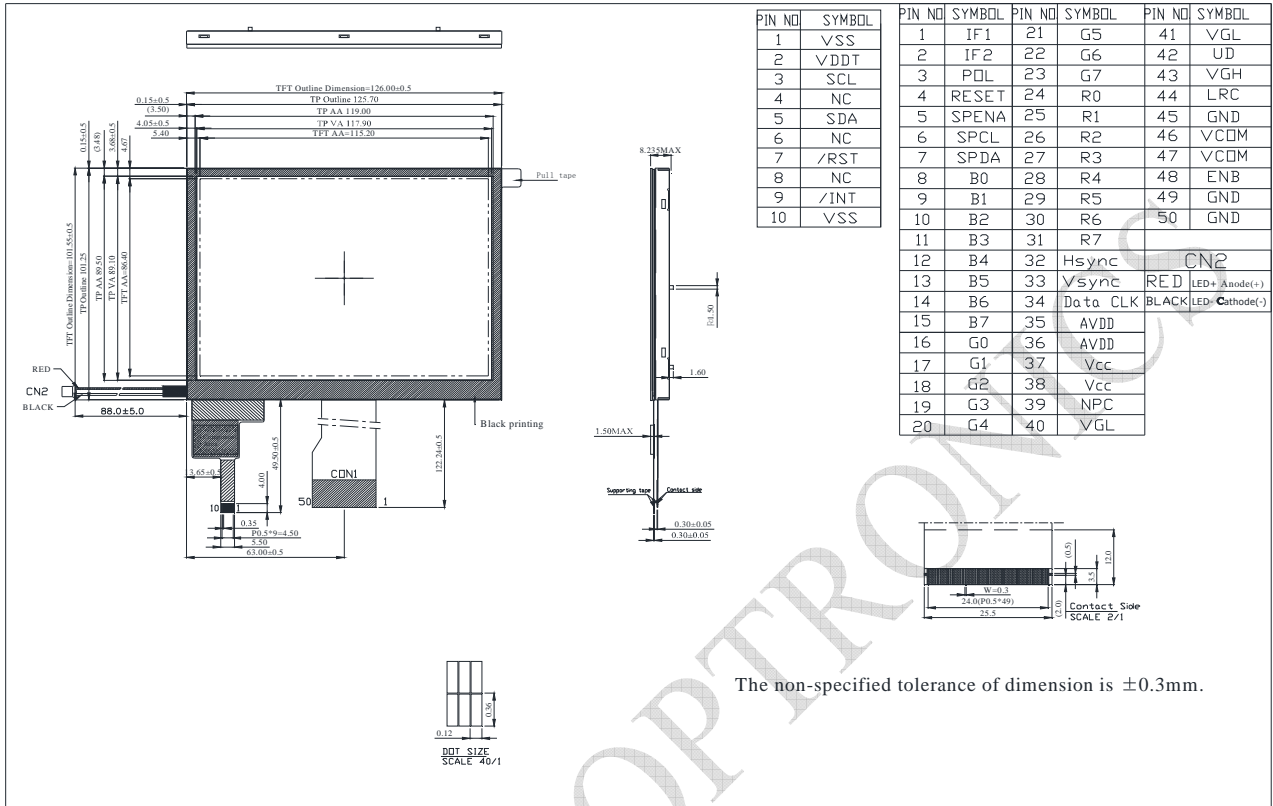
## 2. Backlight PIN Definition

Pin No.	Symbol	I/O	Description
1	VLED+	I	Red, LED_ Anode
2	VLED-	I	White, LED_ Cathode

## 3. PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.3V
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RST	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Ground for analog circuit

# Contour Drawing



## 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	Condition	Min	Typ	Max	Unit	
Supply Voltage For LCM	VCC	—	3.0	3.3	3.6	V	
Supply Voltage For CTP	VDDT	—	2.8	—	3.3	V	
Input High Volt.	V <sub>IH</sub>	—	0.7 VCC	—	VCC	V	
Input Low Volt.	V <sub>IL</sub>	—	0	—	0.3 VCC	V	
LCD Driving Supply Voltage	V <sub>GH</sub> *1	Ta=25°C		15		V*3	
	V <sub>GL</sub> *2			-10			
	VcomH			2.5			5.5
	VcomL			-2.0			0
Supply Current For LCM	I <sub>VCC</sub>	VCC=3.3V	—	5	8	mA	

### 2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current		-	140	-	mA
Power Consumption			1365	1470	mW
LED voltage	VBL+	9.0	-	10.5	V
LED Life Time		-	50,000	-	Hr