

TFT DISPLAY SPECIFICATION



RAYSTAR

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RFC57FB-AIW-DNG

SPECIFICATION

General Specifications

- Size: 5.7 inch
- Dot Matrix: 320 x RGB x 240(TFT) dots
- Module dimension: 160(W) x 109(H) x 9.985 (D) 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
- TFT Interface: 24-bit RGB
- TFT IC :HX8218& HX8615 or Equivalent
- Aspect Ratio: 4:3
- Backlight Type: LED, Normally White
- PCAP IC: ILI2130 or Equivalent
- PCAP Interface: I2C
- PCAP FW Version: 0x07.0x00.0x00.0x00.0xA1.0x01.0x57.0x00
- PCAP Resolution:16384*16384
- 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	IF1	Input data format control
2	IF2	Input data format control
3	POL	Polarity Signal connect to VCOM driving circuit.
4	RESET	Hardware reset
5	SPENA	Chip select
6	SPCL	Serial Clock
7	SPDA	Serial Data
8	B0	Blue Data bit
9	B1	Blue Data bit
10	B2	Blue Data bit
11	B3	Blue Data bit
12	B4	Blue Data bit
13	B5	Blue Data bit
14	B6	Blue Data bit
15	B7	Blue Data bit
16	G0	Green Data bit
17	G1	Green Data bit
18	G2	Green Data bit
19	G3	Green Data bit
20	G4	Green Data bit
21	G5	Green Data bit
22	G6	Green Data bit
23	G7	Green Data bit
24	R0	Red Data bit
25	R1	Red Data bit
26	R2	Red Data bit
27	R3	Red Data bit
28	R4	Red Data bit
29	R5	Red Data bit
30	R6	Red Data bit

31	R7	Red Data bit
32	Hsync	Horizontal synchronous signal
33	Vsync	Vertical synchronous signal
34	Data CLK	Dot data clock
35	AVDD(analog)	Analog power: 4.5V~5.5V
36	AVDD(analog)	Analog power: 4.5V~5.5V
37	VCC(Digital)	Digital power: 3V~3.6V
38	VCC(Digital)	Digital power: 3V~3.6V
39	NPC	NTSC/PAL mode Auto detection result H:NTSC/L:PAL
40	VGL	Gate off power
41	VGL	Gate off power
42	UD	Up/down selection
43	VGH	Gate on power
44	LRC	Shift direction of device internal shift register control.
45	GND	System ground pin of the IC. Connect to system ground.
46	VCOM	VCOM driving input
47	VCOM	VCOM driving input
48	ENB	Signal to settle the horizontal display position
49	GND	System ground pin of the IC. Connect to system ground.
50	GND	System ground pin of the IC. Connect to system ground.

2.PCAP PIN Definition

Pin	Symbol	Function
1	VSS	System ground pin of the IC. Connect to system ground.
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	System ground pin of the IC. Connect to system ground.

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 Current For LCM	ICC	—	—	17	25	mA
Input High Volt.	VIH	—	0.7 VCC	—	VCC	V
Input Low Volt.	VIL	—	0	—	0.3 VCC	V
LCD Driving Supply Voltage	VGH	—	—	15	—	V
	VGL	—	—	-10	—	V
	VCOMH	—	2.5	—	5.5	V
	VCOML	—	-2.0	—	0	V
	AVDD	—	4.5	5.0	5.5	V
Supply CTP	VDDT	—	3.0	3.3	3.6	V
	ICTP	—	—	56	84	mA

2. LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	-	-	140	-	mA
Power Consumption	-	1260	-	1470	mW
LED voltage	VBL+	9.0	-	10.5	V
LED Life Time	-	-	50,000	-	Hr