



**WINSTAR Display Co.,Ltd.**  
**華凌光電股份有限公司**



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### SPECIFICATION

**MODULE NO.: WF57DTIACDNGE#**

### General Specifications

Item	Dimension	Unit
Size	5.7	inch
Dot Matrix	320 x RGB x 240(TFT)	dots
Module dimension	126.00(W) x 101.55(H) x 8.24(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	
TFT Drive IC	HX8218+HX8615 or Equivalent	
Interface	24-bit RGB	
Aspect Ratio	4:3	
Backlight Type	LED, Normally White	
PCAP FW Version	0x07.0x00.0x00.0x00.0xA1.0x01.0x57.0x00	
PCAP IC	ILI2130 or equivalent	
PCAP Interface	I2C	
PCAP Resolution	16384*16384	
Touch Panel	With PCAP	
Surface	Glare	

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

# 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 CTP	VDDT	—	3.0	3.3	3.6	V
	I <sub>CTP</sub>	—	—	56	84	mA
Input High Volt.	VIH	—	0.7 VCC	—	VCC	V
Input Low Volt.	VIL	—	0	—	0.3 VCC	V
LCD Driving Supply Voltage	VGH *1	Ta=25°C		15		V*3
	VGL*2			-10		
	VcomH		2.5		5.5	
	VcomL		-2.0		0	
Supply Current For LCM	IVCC	VCC=3.3V	—	5	8	mA

# Interface

## 1. LCM PIN Definition

Pin No.	Symbol	I/O	Description	Remark
1	IF1	I	Input data format control (Note1)	Note1
2	IF2	I	Input data format control (Note1)	Note1
3	POL	O	Polarity Signal connect to VCOM driving circuit.	Note3
4	RESET	I	Hardware reset.	
5	SPENA	I	Chip select	Note2
6	SPCL	I	Serial Clock	Note2
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	4.5V~5.5V	
36	AVDD	I	4.5V~5.5V	
37	Vcc	I	3V~3.6V	
38	Vcc	I	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	Note3
47	VCOM	I	VCOM driving input	
48	ENB	I	Data enable input. Normally pull low.	Note4
49	GND	I	GROUND	
50	GND	I	GROUND	

Note: 1.Control the input data format.

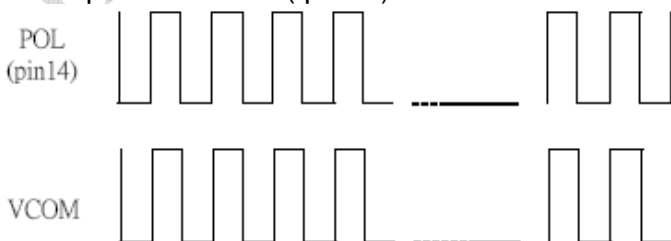
IF2,IF1	Input data format
L,L(default)	Serial RGB
L,H	Parallel RGB
H,L	CCIR601
H,H	CCIR656

2. Pin 5、Pin 6 usually pull high.

3. The polarity of VCOM (Pin 46,47) should be generated from POL (Pin 3).

4. For digital RGB input data format, both SYNC mode and DE+SYNC mode are supported. If ENB signal is fixed low, SYNC mode is used. Otherwise, DE+SYNC mode is used.

5. The phase of POL (pin 3):



## 2. Backlight PIN Definition

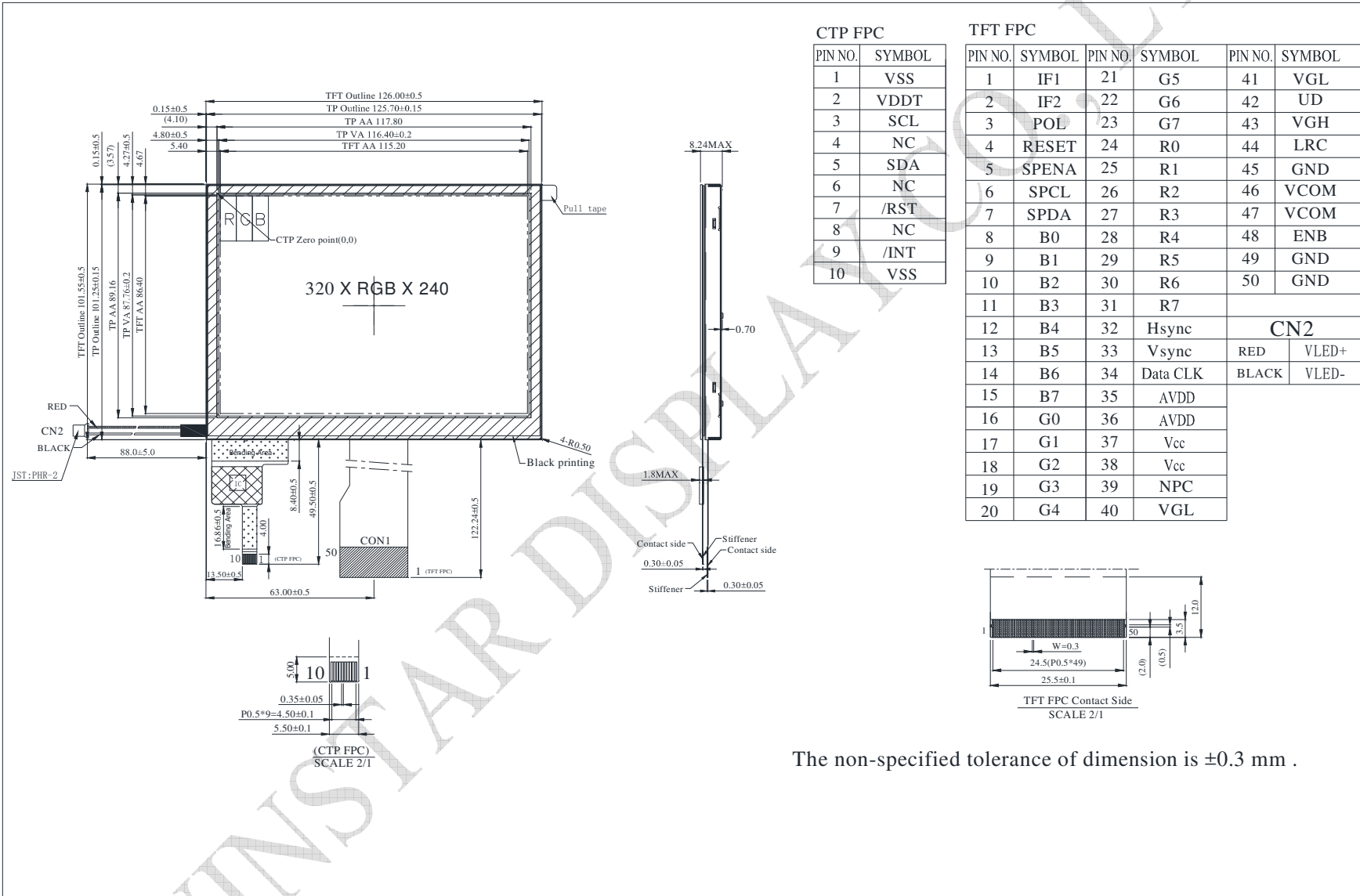
Pin No.	Symbol	I/O	Description
1	VLED+	I	Red, LED_ Anode
2	VLED-	I	Black, LED_ Cathode

Note: The backlight interface connector is a model **PHR-2** manufactured by JST or equivalent.  
The matching connector part number is S 2B-PH-K-S manufactured by JST or equivalent.

## 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



The non-specified tolerance of dimension is  $\pm 0.3$  mm .