

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF57STIACDNGB#

General Specifications

Item	Dimension	Unit
Size	5.7	inch
Dot Matrix	320 x 240	dots
Module dimension	160.0 x 109.0 x 8.74	mm
Active area	115.2 x 86.4	mm
Dot pitch	0.36 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	
Interface	MCU / SPI	
Gray Scale	16 Gray scale (4BPP)/ 4 Gray scale (2BPP)/ 2 Gray scale (1BPP)	
Driver IC	ST7511U or Equivalent	
Backlight Type	LED, Normally White	
PCAP IC	ILI2130 or equivalent	
PCAP Interface	I2C	
PCAP Resolution	16384*16384	
PCAP FW Version:	0x07.0x00.0x00.0x00.0xA1.0x01.0x57.0x00	
Touch Panel	With PCAP	
Surface	Glare	

* Mono 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

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	—	3.0	3.3	3.6	V
Supply Current For LCM	IDD	—	—	20	30	mA
Power Consumption	—	—	—	66	108	mW
Supply Voltage For Touch	VDDT	—	3.0	3.3	3.6	V
	I _{CTP}	—	—	56	84	mA

Note1: This value is test for VDD=3.3V only

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current		-	140	-	mA
Power Consumption		1120	-	1386	mW
LED voltage	VLED+	8.0	9.0	9.9	V
LED Life Time		-	50,000	-	Hr

Interface

1.LCM PIN Definition

Pin	Symbol	Function	Remark
1	GND	System ground	
2	VDD	Power Supply : +3.3V	
3	NC	No connect	
4	A0	Data/Command select	
5	/WR(R/W)	Write strobe signal	
6	/RD(E)	Read strobe signal	
7	DB0	Data bus	
8	DB1	Data bus	
9	DB2	Data bus	
10	DB3	Data bus	
11	DB4	Data bus	
12	DB5	Data bus	
13	DB6	Data bus	
14	DB7	Data bus	
15	/CS	Chip select	
16	/RESET(RSTB)	Hardware reset	
17	IF0	Mode select	Note1
18	IF1		
19	NC	No connect	
20	NC	No connect	
21	NC	No connect	
22	NC	No connect	

Note1:

Setting		MCU Type	Interface Pin Function				
IF1	IF0		CSB	A0	RWR	ERD	D[7:0]
L	L	Parallel 8080 series MCU	CSB	A0	/WR	/RD	D[7:0]
L	H	Parallel 6800 series MCU			R/W	E	
H	H	Serial 4-Line series MCU			-	-	
H	L	Serial 3-Line series MCU		-	-	-	D7=SCL, D0=SDA, D[6:1] are not used

The un-used pins are marked as “-” and should be connected to “H” by VDDI.

2. Backlight Unit Section(CN2)

LED Light Bar connector is used for the the integral backlight system. The recommended model is "JST XH-3" manufactured by JST.

Pin No.	Symbol	I/O	Function	Remark
1	VLED+	P	Power for LED backlight anode (A)	Red
3	VLED-	P	Power for LED backlight cathode (K)	White

3. PCAP PIN Definition

Pin	Symbol	Function	Remark
1	VSS	Ground for analog circuit	
2	VDDT	Power Supply : +3.3V	
3	SCL	I2C clock inputI2C 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

