

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF39ESWASDNG0#

General Specifications

Item	Dimension	Unit
Size	3.9	inch
Dot Matrix	480 x RGB x 128(TFT)	dots
Module dimension	105.5(W) x 37.0(H) x 5.2(D)	mm
Active area	95.04 x 25.34	mm
Pixel pitch	0.198 x 0.198	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	80/80/80/80	
Aspect Ratio	Bar Type	
TFT Driver IC	SC7283 or equivalent	
Interface	24-bit RGB	
Backlight Type	LED, Normally White	
PCAP IC	GT911 or equivalent	
PCAP FW Version	77	
PCAP Interface	I2C	
PCAP Resolution	480*128	
Touch Panel	Projected Capacitive Touch Panel (PCAP)	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+85	°C
Storage Temperature	TST	-30	—	+85	°C

Electrical Characteristics

1. Operating conditions:

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	V _{CC}	3.0	—	3.6	V
Supply Current For LCM	I _{CC}	—	20.0	30.0	mA
Supply CTP	V _{DDT}	2.8	—	3.3	V
	I _{DDT}	—	13.0	20.0	mA

2. LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	—	—	40	—	mA
Power Consumption	—	784	840	952	mW
LED voltage	V _{LED+}	19.6	21.0	23.8	V
LED Life Time	—	50,000	—	—	Hr

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	VLED-	Power for LED backlight cathode
2	VLED+	Power for LED backlight anode
3	GND	Power ground
4	VCC	Power voltage
5	R0	Red data
6	R1	Red data
7	R2	Red data
8	R3	Red data
9	R4	Red data
10	R5	Red data
11	R6	Red data
12	R7	Red data
13	G0	Green data
14	G1	Green data
15	G2	Green data
16	G3	Green data
17	G4	Green data
18	G5	Green data
19	G6	Green data
20	G7	Green data
21	B0	Blue data
22	B1	Blue data
23	B2	Blue data
24	B3	Blue data
25	B4	Blue data
26	B5	Blue data
27	B6	Blue data
28	B7	Blue data
29	GND	Power ground
30	DCLK	Pixel clock input pin

31	DISP	DISP sets the display mode.	
		DISP	Function Description
		L	Standby mode
		H	Normal display mode
32	HSYNC	Horizontal sync signal, default is negative polarity.	
33	VSYNC	Vertical sync signal, default is negative polarity.	
34	NC	No connection	
35	NC	No connection	
36	GND	Power ground	
37	NC	No connection	
38	NC	No connection	
39	NC	No connection	
40	NC	No connection	

2. PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.0V
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

