

# TFT DISPLAY SPECIFICATION



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



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### SPECIFICATION

**MODULE NO.: WF70A2SIAGDNL0#**

## General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	800 x RGB x 480 (TFT)	dots
Module dimension	165 x 100.0x 8.15	mm
Active area	154.08 x 85.92	mm
Pixel Pitch	0.1926 X 0.179	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
Aspect Ratio	16:9	
Backlight Type	LED ,Normally White	
TFT Interface	24-bit RGB	
Color arrangement	RGB-STRIPE	
TFT Driver IC	Source IC: ST-5623D, Gate IC: ST5091D	
PCAP Active Area	145.22mm*77.19mm (Lens va One-sided retraction 5mm)	
PCAP IC	MXT874U or equivalent	
PCAP Interface	I2C	
PCAP FW Version	0x8CAB7A	
PCAP Resolution	800*480	
With /Without TP	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

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For Logic	VCC	3.0	3.3	3.6	V
Supply CTP	VDDT	3.0	3.3	3.6	V
	I <sub>CTP</sub>	—	15	25	mA
Power voltage	AVDD	10.2	10.4	10.6	V
Power Supply For Current	VCC =3.3V	-	10	15	mA
Power voltage	VGH	14.5	15.0	15.5	V
Power voltage	VGL	-10.5	-10	-9.5	V
Input signal voltage	VCOM	3.54	4.04	4.54	V

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	-	-	270	-	mA	-
Power Consumption	-	2268	2430	2592	mW	-
LED voltage	LED+	8.4	9.0	9.6	V	Note 1
LED Life Time	-	-	50,000	-	Hr	Note 2,3,4

# Interface

## 9.1. LCM PIN Definition

Pin	Symbol	Function	Remark
1	LED+	Power supply for backlight	
2	LED+	Power supply for backlight	
3	LED-	Backlight ground	
4	LED-	Backlight ground	
5	GND	Power ground	
6	VCOM	Common voltage	
7	VCC	Power for Digital Circuit	
8	MODE	DE/SYNC mode select	Note 1
9	DE	Data Input Enable	
10	VS	Vertical Sync Input	
11	HS	Horizontal Sync Input	
12	B7	Blue data(MSB)	
13	B6	Blue data	
14	B5	Blue data	
15	B4	Blue data	
16	B3	Blue data	
17	B2	Blue data	
18	B1	Blue data	Note 2
19	B0	Blue data(LSB)	Note 2
20	G7	Green data(MSB)	
21	G6	Green data	
22	G5	Green data	
23	G4	Green data	
24	G3	Green data	
25	G2	Green data	
26	G1	Green data	Note 2
27	G0	Green data(LSB)	Note 2

28	R7	Red data(MSB)	
29	R6	Red data	
30	R5	Red data	
31	R4	Red data	
32	R3	Red data	
33	R2	Red data	
34	R1	Red data	Note 2
35	R0	Red data(LSB)	Note 2
36	GND	Power Ground	
37	DCLK	Sample clock (CLK)	Note 3
38	GND	Power Ground	
39	L/R	Left / right selection	Note 4
40	U/D	Up/down selection	Note 5
41	VGH	Gate ON Voltage	
42	VGL	Gate OFF Voltage	
43	AVDD	Power for Analog Circuit	
44	RESET	Global reset pin.	Note 6
45	NC	No connection	
46	VCOM	Common Voltage	
47	DITHB	Dithering function	Note 7
48	GND	Power Ground	
49	NC	No connection	
50	NC	No connection	

I: input, O: output, P: Power

## 9.2. PCAP PIN Definition

Pin	Symbol	Function	Remark
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

