

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF70A8SYAHLNGB#

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	1024 x RGB x 600(TFT)	dots
Module dimension	169.9(W) x 103.4(H) x 7.3(D)	mm
Active area	154.2144 x 85.92	mm
Pixel pitch	0.1506 x 0.1432	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	85/85/85/85	
TFT Interface	LVDS	
Aspect Ratio	16:9	
Driver IC	ST5021 + ST5651 or equivalent	
Backlight Type	LED, Normally White	
PCAP IC	ILI2130 or Equivalent	
PCAP Interface	I2C	
PCAP FW Version	0x07.0x00.0x00.0x00.0x65.0x90.0x00.0x01	
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

Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	VDD	3.0	3.3	3.6	V
Supply CTP	VDDT	3.0	3.3	3.6	V
	I _{CTP}	—	65	98	mA
Analog Power	AVDD	8.9	9.0	9.1	V
TFT Gate ON Voltage	VGH	17	18	19	V
TFT Gate OFF Voltage	VGL	-6.5	-6.0	-5.5	V
TFT Common Voltage	Vcom	3.0	3.15	3.3	V
Current for Driver	IDD	-	14	21	mA
Power Current	IAVDD	-	25	-	mA
TFT Gate ON Current	IVGH	-	1	-	mA
TFT Gate OFF Current	IVGL	-	1	-	mA
TFT Common Current	IVCOM	-	1	-	mA

Interface

1.LCM PIN Definition

Pin No.	Symbol	I/O	Function
1	VCOM	P	Common Voltage
2	VDD	P	Digital circuit
3	VDD	P	Digital circuit
4	NC	---	No connection
5	RESET	I	Global reset pin
6	STBYB	I	Standby mode, Normally pulled high STBYB = "1", normal operation STBYB = "0", timing controller, source driver will turn off, all output are High-Z
7	GND	P	Ground
8	RXIN0-	I	Negative LVDS differential data input
9	RXIN0+	I	Positive LVDS differential data input
10	GND	P	Ground
11	RXIN1-	I	Negative LVDS differential data input
12	RXIN1+	I	Positive LVDS differential data input
13	GND	P	Ground
14	RXIN2-	I	Negative LVDS differential data input
15	RXIN2+	I	Positive LVDS differential data input
16	GND	P	Ground
17	RXCLKIN-	I	Negative LVDS differential clock input
18	RXCLKIN+	I	Positive LVDS differential clock input
19	GND	P	Ground
20	RXIN3-	I	Negative LVDS differential data input
21	RXIN3+	I	Positive LVDS differential data input
22	GND	P	Ground
23	NC	---	No connection
24	NC	---	No connection
25	GND	P	Ground
26	NC	---	No connection
27	NC	---	No connection
28	SELB	I	6bit/8bit mode select H:6bit / L:8bit

29	AVDD	P	Power for Analog Circuit
30	GND	P	Ground
31	LED-	P	LED Cathode
32	LED-	P	LED Cathode
33	L/R	I	Horizontal inversion
34	U/D	I	Vertical inversion
35	VGL	P	Negative power for TFT
36	NC	---	No connection
37	NC	---	No connection
38	VGH	P	Positive power for TFT
39	LED+	P	LED Anode
40	LED+	P	LED Anode

I:input ,O:output,P:power

2. 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

Four Drawing

TFT Outline 169.9±0.3
TP Outline 164.4
TP_AA 156.68
TP_VA 155.22
TFT_AA 154.2144

CTP Zero point(0,0)

1024XRGBX600

Pull tape

Black Printing

Lens f=0.7mm

7.3+0.25/-0.35
5.6+0.10/-0.20

Bending Area

15.00

2-C'0.15±0.2 (along the outline)

1.65 MAX

1.8MAX

Contact side

Stiffener 0.3±0.05

Stiffener+DST

Black tape

7.96±0.5

10.4

12.6

21.8±0.5

40

5.5

0.35±0.05
P0.5*39=19.5±0.1

20.5±0.1

69.5±0.5

(TFT FPC)

130.62±0.5

(CTP FPC)

29.50

52±0.5

13.26

3.0

0.25±0.05
P0.5*9=4.5±0.1

5.5±0.1

(CTP FPC)

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	NC
9	/INT
10	VSS

The non-specified tolerance of dimension is ±0.3mm

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Four Drawing

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TP Outline 164.4
TP_AA 156.68
TP_VA 155.22
TFT_AA 154.2144

R G B
CTP Zero point(0,0)

1024XRGBX600

Pull tape

Black Printing

Lens
f=0.7mm

7.3^{+0.25}/_{-0.35}
5.6^{+0.10}/_{-0.20}

Bending Area

2-C°15±0.2
(along the outline)

1.65 MAX

1.8MAX

Contact side

Stiffener
0.3±0.05

0.3±0.05

7.96±0.5

Stiffener+DST

Black tape

Pin

Pin10

(CTP FPC)

(TFT FPC)

Pin

Pin10

(CTP FPC)

(TFT FPC)

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	NC
9	/INT
10	VSS

The non-specified tolerance of dimension is ±0.3mm

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5.6^{+0.10}/_{-0.20}

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15.00

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52±0.5

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0.25±0.05

P0.5*9=4.5±0.1

5.5±0.1

(CTP FPC)

2-C'0.15±0.2
(along the outline)

1.65 MAX

1.8MAX

Contact side

Stiffener
0.3±0.05

0.3±0.05

7.96±0.5

10.4

12.6

21.8±0.5

4.5±0.5

PV

PV10

(CTP FPC)

Black tape

40

5.5

(TFT FPC)

(TFT FPC)

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	NC
9	/INT
10	VSS

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