TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.

華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WFN1560A5S0YAENN000

General Specifications

Item	Dimension	Unit
Size	15.6	inch
Dot Matrix	1920 x RGB x 1080	dots
Module dimension	360.0(W) x 212.35 (H) x 8.0 (D)	mm
Active area	344.16 x 193.59	mm
Pixel pitch	0.17925 (H) x 0.17925 (V)	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	80/80/80/80	
Backlight Type	LED, Normally White	
TFT Driver IC	TC2065G3PUR09UT-A2-I or Equivalent	
TFT Interface	eDP 1.2	
Touch Panel	Without Touch Panel	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

1. TFT LCD Module

Parameter		Symbol	Value			Unit
			Min.	Typ.	Max.	
Supply Voltage For LCM		LCD_VDD	3.0	3.3	3.6	V
Ripple Voltage		V_{RP}	-	50	150	mV
Inrush Current		I_{RUSH}	0	-	1.5	A
LCD_VDD Current		IDD	-	250	350	mA
LCD_VDD Current		IDDMAX	-	-	400	mA
HPD Pull-Low Resistance		R_{HPD}	30K	-	100K	ohm
HPD	High Level	VH_{HPD}	2.25	-	2.75	V
	Low Level	VL_{HPD}	0	-	0.4	V

2. Backlight Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Condition
LED input	VLED	28.6	33.0	35.2	V	Ta=25 ºC
LED Forward Current	ILED	-	540	-	mA	
LED Life Time	-	50K	-	-	Hours	Ta=25 ºC

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Interface

1. LCM PIN Definition (CN1)

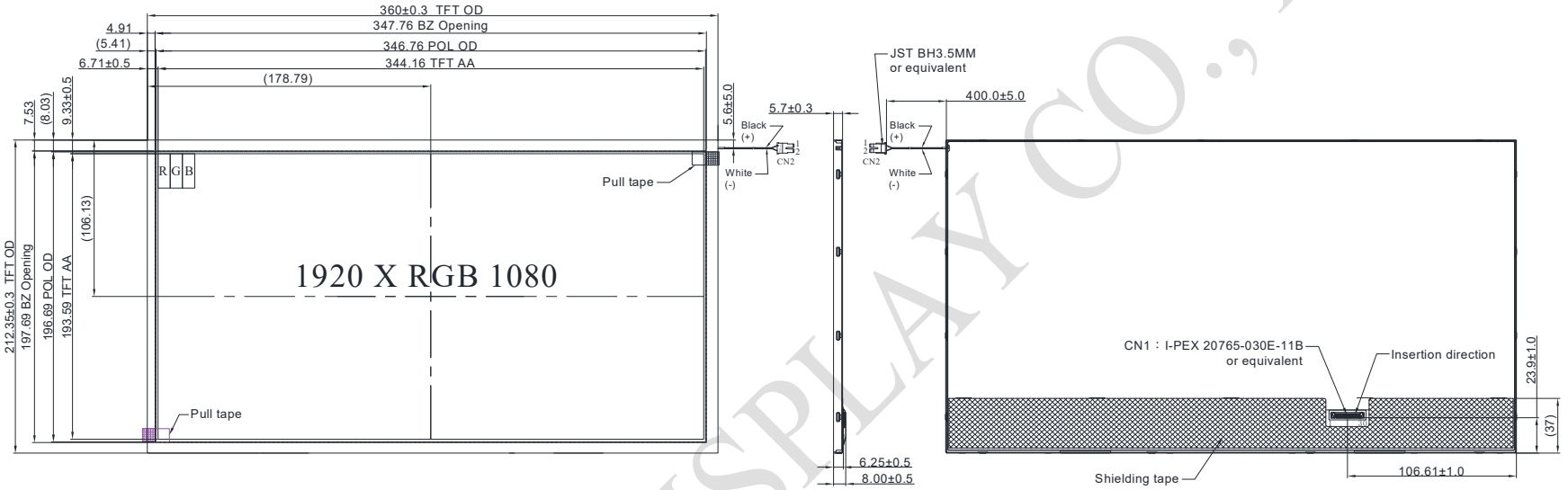
Pin No	Symbol	Description
1	NC	No Connection (Reserved for LCD test)
2	H_GND	High Speed Ground
3	Lane1_N	Complement Signal-Lane 1
4	Lane1_P	True Signal-Main Lane 1
5	H_GND	High Speed Ground
6	Lane0_N	Complement Signal-Lane 0
7	Lane0_P	True Signal-Main Lane 0
8	H_GND	High Speed Ground
9	AUX_CH_P	True Signal-Auxiliary Channel
10	AUX_CH_N	Complement Signal-Auxiliary Channel
11	H_GND	High Speed Ground
12	LCD_VDD	Power Supply +3.3V(typical)
13	LCD_VDD	Power Supply +3.3V(typical)
14	NC	No Connection (Reserved for LCD test)
15	LCD_GND	Ground
16	LCD_GND	Ground
17	HPD	Hot Plug Detect
18-30	NC	No Connection

2. Backlight PIN Definition (CN2)

Pin No.	Symbol	Description
1	VLED+	Black, LED_ Anode
2	VLED-	White, LED_ Cathode

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Contour Drawing



CN2

PIN NO.	SYMBOL
1	VLED+
2	VLED-

CN1

PIN NO.	SYMBOL	PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	NC	11	H_GND	21	NC
2	H_GND	12	LCD_VDD	22	NC
3	Lane1_N	13	LCD_VDD	23	NC
4	Lane1_P	14	NC	24	NC
5	H_GND	15	LCD_GND	25	NC
6	Lane0_N	16	LCD_GND	26	NC
7	Lane0_P	17	HPD	27	NC
8	H_GND	18	NC	28	NC
9	AUX_CH_P	19	NC	29	NC
10	AUX_CH_N	20	NC	30	NC

The non-specified tolerance of dimension is ±0.3 mm .

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