Winstar Display Co., LTD
華凌光電股份有限公司
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SPECIFICATION

MODULE NO.: WF70-1024600A8M#0P0-FC

General Specification

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	1024 × RGB × 600(TFT)	dots
Module dimension	169.9(W) × 103.4(H) × 5.6(D)	mm
Active area	154.2144 × 85.92	mm
Pixel pitch	0.1506 × 0.1432	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	85/85/85/85	
Aspect Ratio	16:9	
Driver IC	EK79007AD3 + EK73217BCGA or equivalent	
Interface	4-Lanes MIPI	
Backlight Type	LED, Normally White	
Touch Panel	Without Touch Panel	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

Represented by:
first FC components
FIRST Components srl Via Cavour 69, 21020 Buguggiate (VA)
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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

Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	VDD	1.71	1.8	1.89	V
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	VCOMIN	3.0	3.15	3.3	V
Current for Driver	IDD	--	16	24	mA
Power Current	IAVDD	--	19	28.5	mA
TFT Gate ON Current	IVGH	--	1.6	2.4	mA
TFT Gate OFF Current	IVGL	--	0.6	0.9	mA
TFT Common Current	IVCOMIN	--	0	--	mA

Backlight Driving Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Voltage for LED backlight	VL	16.8	19.2	21.0	V
Current for LED backlight	IL	--	240	--	mA
LED life time	-	-	50,000	-	Hr

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Interface

1. LCM PIN Definition

Pin No.	Symbol	Function
1	VLED+	LED Anode
2	VLED+	LED Anode
3	VGH	Positive power for TFT
4	VGL	Negative power for TFT
5	UPDN	Gate up or down scan control. UPDN = ”L”, STV2 output vertical start pulse and UD pin output logical “L” to Gate driver. (default) UPDN = ”H”, STV1 output vertical start pulse and UD pin output logical “H” to Gate driver
6	SHLR	Source right or left sequence control. SHLR = ”L“, shift left: last data = S1←S2←S3…….←S1536 = first data. SHLR = ”H“, shift right: first data = S1→S2→S3…….→S1536 = last data.(default)
7	VLED-	LED Cathode
8	VLED-	LED Cathode
9	AVDD	Power for Analog Circuit
10	GND	Ground
11	D3P	MIPI data input.
12	D3N	MIPI data input.
13	GND	Ground
14	D2P	MIPI data input.
15	D2N	MIPI data input.
16	GND	Ground
17	CLKP	MIPI clock input
18	CLKN	MIPI clock input
19	GND	Ground
20	D1P	MIPI data input.
21	D1N	MIPI data input.
22	GND	Ground

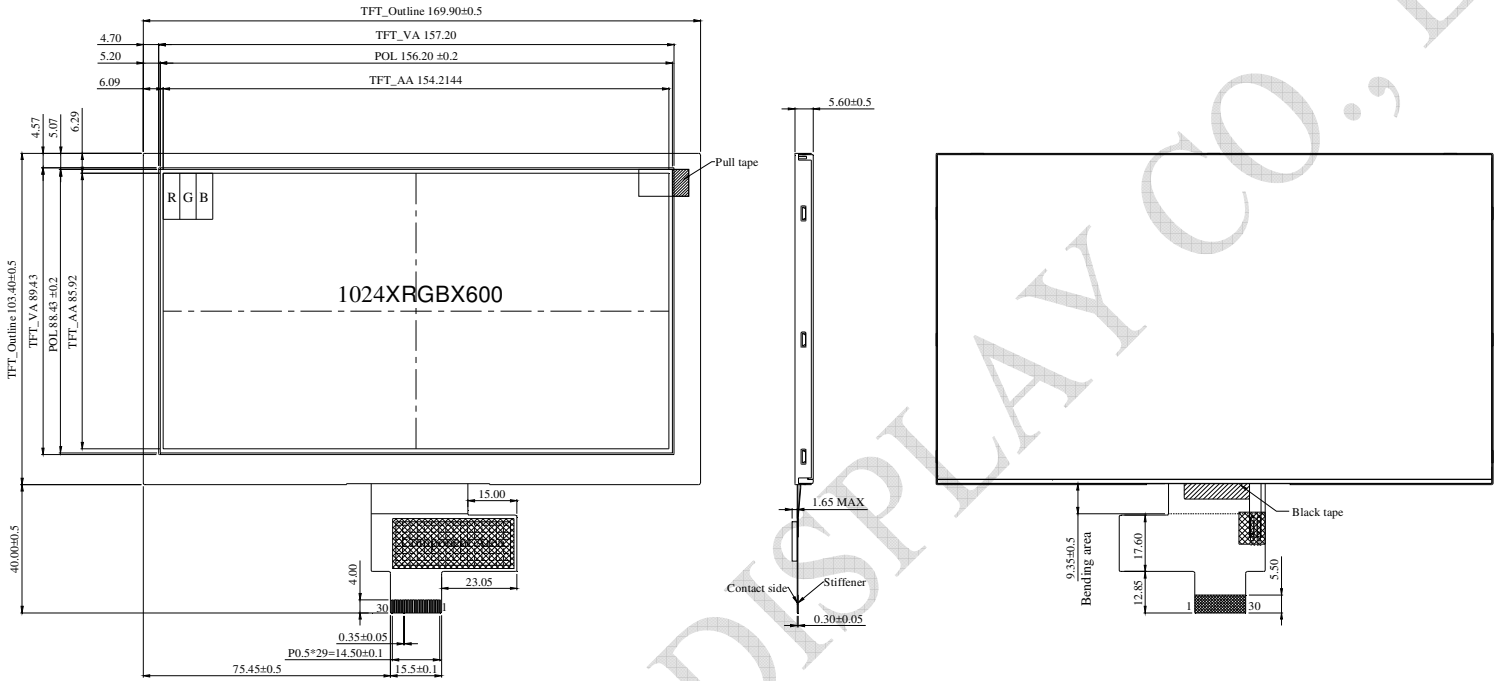
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23	D0P	MIPI data input.
24	D0N	MIPI data input.
25	GND	Ground
26	STBYB	Standby mode. STBYB = ”H“,normal operation(default) STBYB = ”L”, timing controller, source driver will turn off, all output are GND.
27	RESET	Global reset pin. Active Low to enter Reset State. Normally pull high. Connecting with an RC reset circuit for stability.
28	VDD(1.8V)	Digital circuit
29	VDD(1.8V)	Digital circuit
30	VCOMIN	Common voltage

Note
When L/R=”0”,set right to left scan direction.
When L/R=”1”,set left to right scan direction.
When U/D=”0”,set top to bottom scan direction.
When U/D=”1”,set bottom to top scan direction.

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Contour Drawing



PIN NO.	SYMBOL
1	VLED+
2	VLED+
3	VGH
4	VGL
5	UPDN
6	SHLR
7	VLED-
8	VLED-
9	AVDD
10	GND
11	D3P
12	D3N
13	GND
14	D2P
15	D2N
16	GND
17	CLKP
18	CLKN
19	GND
20	D1P
21	D1N
22	GND
23	D0P
24	D0N
25	GND
26	STBYB
27	RESET
28	VDD (1.8V)
29	VDD (1.8V)
30	VCOMIN

VDD:1.8V
RESET: H:1.8V L:0V
STBYB:H:1.8V L:0V
SHLR:H:1.8V L:0V
UPDN:H:1.8V L:0V

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

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