

TFT DISPLAY SPECIFICATION



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SPECIFICATION

MODULE NO.: WF70A8SYAHDNN0#

General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	1024 x RGBx600(TFT)	dots
Module dimension	169.9(W) x 103.4(H) x 5.6(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	
Aspect Ratio	16:9	
Driver IC	EK79001HK-S + EK73215BCGA or equivalent	
Interface	24bit RGB	
Backlight Type	LED, Normally White	
Touch Panel	Without Touch Panel	
Surface	Anti-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

1. Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	VCC	3.0	3.3	3.6	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	Vcom	3.0	3.15	3.3	V
Current for Driver	IDD	-	85	130	mA
Power Current	IAVDD	-	20	-	mA
TFT Gate ON Current	IVGH	-	1	-	mA
TFT Gate OFF Current	IVGL	-	1	-	mA
TFT Common Current	IVCOM	-	1	-	mA

2. 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	--	290	--	mA
LED life time	-	-	50,000	-	Hr

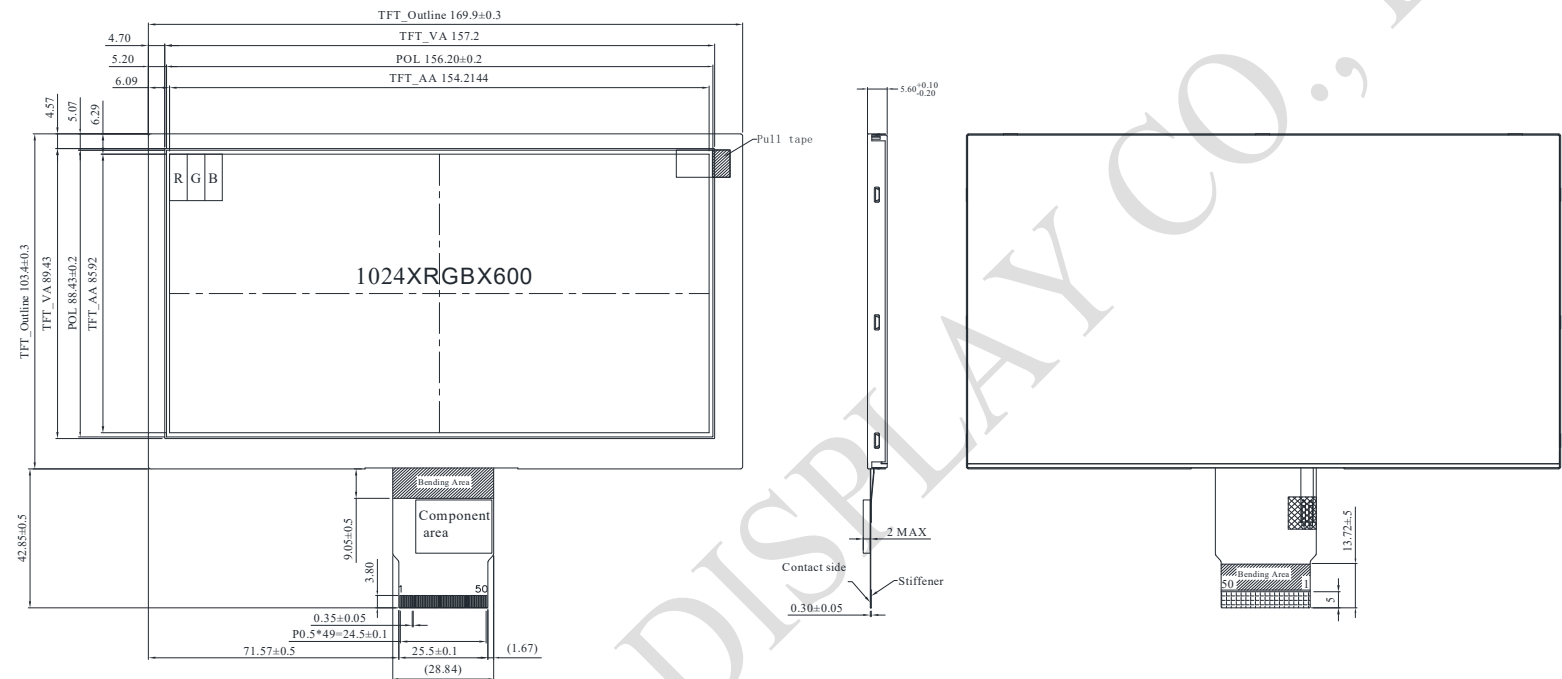
Interface

1. LCM PIN Definition

Pin No.	Symbol	Function
1	VLED+	LED Anode
2	VLED+	LED Anode
3	VLED-	LED Cathode
4	VLED-	LED Cathode
5	GND	Ground
6	VCOM	Common voltage
7	VCC	Power for Digital Circuit
8	MODE	DE/SYNC mode select
9	DE	Data Input Enable (DEN)
10	VS	Vertical Sync Input (VSD)
11	HS	Horizontal Sync Input (HSD)
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
19	B0	Blue data(LSB)
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
27	G0	Green data(LSB)
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
35	R0	Red data(LSB)
36	GND	Power Ground
37	DCLK	Sample clock (CLK)
38	GND	Power Ground
39	L/R	Left / right selection
40	U/D	Up/down selection
41	VGH	Gate ON Voltage
42	VGL	Gate OFF Voltage
43	AVDD	Power for Analog Circuit
44	RESET	Global reset pin.
45	NC	No connection
46	VCOM	Common Voltage
47	DITHB	Dithering function
48	GND	Power Ground
49	NC	No connection
50	NC	No connection

Contour Drawing



PIN		PIN		PIN		PIN		PIN	
1	VLED+	11	HS	21	G6	31	R4	41	VGH
2	VLED+	12	B7	22	G5	32	R3	42	VGL
3	VLED-	13	B6	23	G4	33	R2	43	AVDD
4	VLED-	14	B5	24	G3	34	R1	44	RESET
5	GND	15	B4	25	G2	35	R0	45	NC
6	VCOM	16	B3	26	G1	36	GND	46	VCOM
7	VCC	17	B2	27	G0	37	DCLK	47	DITHB
8	MODE	18	B1	28	R7	38	GND	48	GND
9	DE	19	B0	29	R6	39	L/R	49	NC
10	VS	20	G7	30	R5	40	U/D	50	NC

The non-specified tolerance of dimension is $\pm 0.3\text{mm}$.