偉同科技股份有限公司

WAYTON TECHNOLOGY CO.,LTD.

3. General specifications

3.1 General specifications

It is a color active matrix TFT (Thin Film Transistor) liquid crystal display (LCD) that uses the amorphous silicon TFT as a switching devices. This model is composed of a Transmissive type TFT-LCD Panel, a driver circuit and a back-light unit.

3.2 Features

- High image quality a-Si TFT LCD module.
- 16.7M color number.
- High contrast, high brightness.
- Low power consumption.

4. Mechanical data

No	Item	Specification	Remark
1	Type	Transmissive	--
2	Display Mode	Normally Black	--
3	Pixel Element	a-Si TFT	--
4	Screen Size	7.0inch	--
5	Resolution	1024(RGB) x 600	--
6	Active Area	154.2144 (W) x 85.92(L) (mm)	--
7	Pixel Size	0.1506 x 0.1432 (mm)	--
8	Color Arrangement	RGB-stripe	--
9	Assembly Type	COG	--
10	Back Light	LED	--
11	Viewing Direction	Free	--
12	Weight	TBD	g
13	Module Dimension	179.5(W) x 111.5(L) x 5.8(H) (mm)	--
14	Touch Panel Mode	Self-capacitance for Single Touch	--
15	Touch Panel Resolution	1024 x 600	--

6. Electrical characteristics

6.1 TFT-LCD Module

Ta =25℃

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Logic Supply Voltage	VDD	1.71	1.8	1.89	V	--
Logic Supply Current	IDD	--	TBD	--	mA	--
Analog Supply Voltage	AVDD	8.9	9.0	9.1	V	--
Gate ON Voltage	VGH	17	18	19	V	--
Gate OFF Voltage	VGL	-6.5	-6.0	-5.5	V	--
Hight level input voltage	VIH	0.7VDD	--	VDD	V	--
Low level input voltage	VIL	0	--	0.3VDD	V	

NOTE(1)：Use Vcom Offset Circuit to supply the common voltage for LCD.

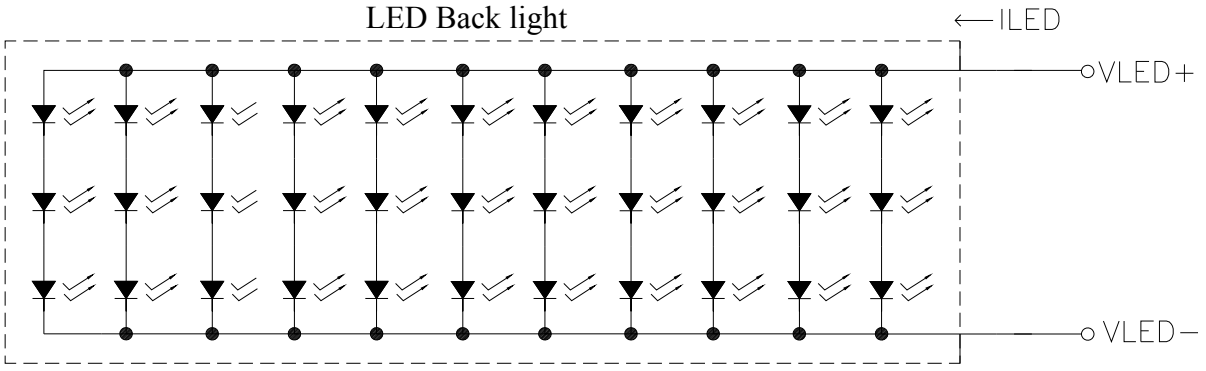
6.2 Back-Light Unit

Ta =25℃

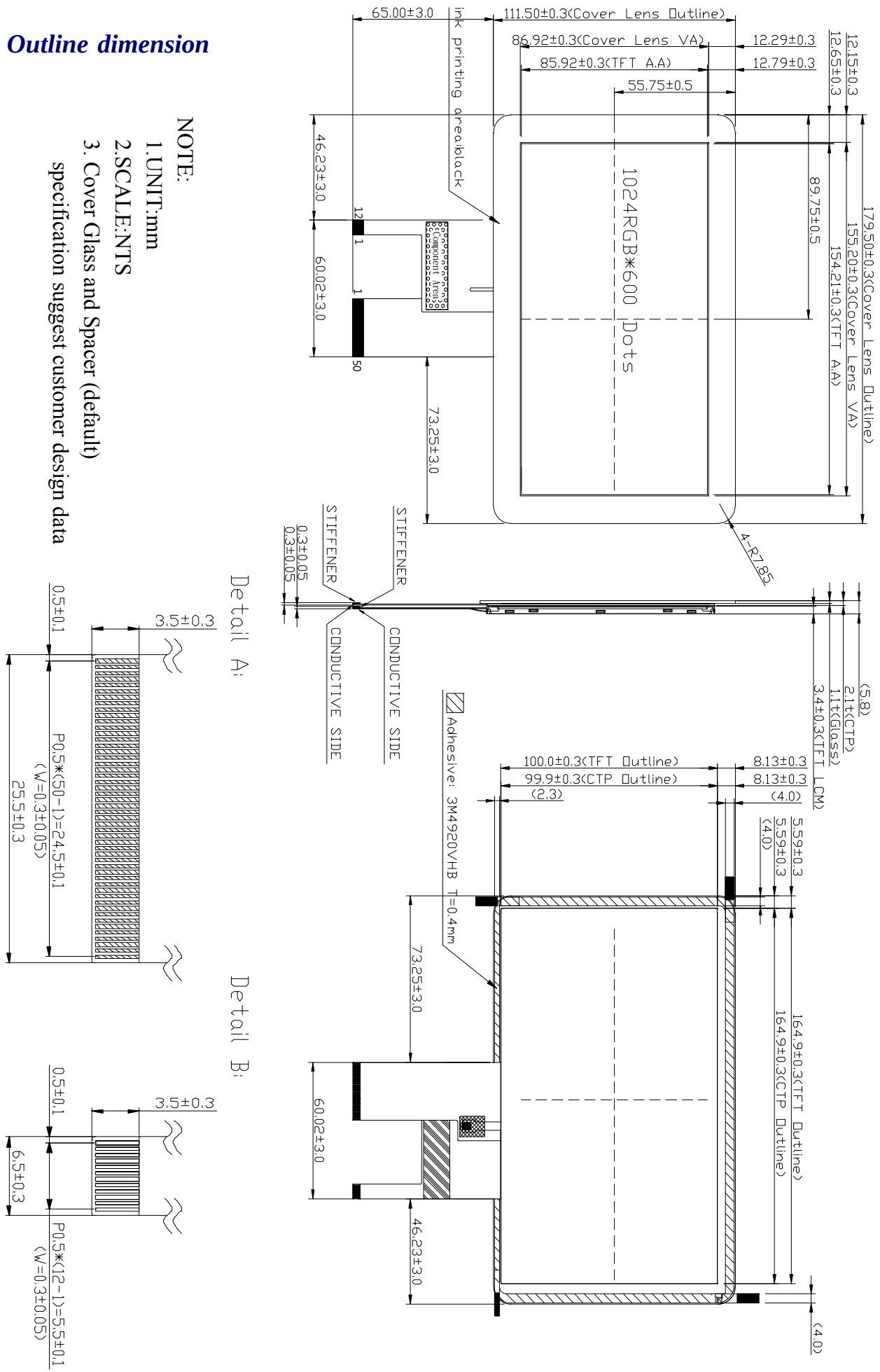
Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Forward Voltage	V_{LED}	8.4	9.3	10.2	V	--
Forward current	I_{LED}	--	220	--	mA	--
Life Time	Lf	20,000	--	--	hrs	NOTE(1)

NOTE(1): The “LED life time” is defined as the module brightness decreases to 50% of original brightness that the ambient temperature is 25℃ and I_{LED}=20mA .The LED lifetime could be decreased if operating I_{LED} is lager than 20mA.

NOTE(2): Back-light circuit：



8. Outline dimension



10. Input Terminal Pin Assignment

10.1 Input Signal & Power(LCM)

Pin no	Symbol	Description	Remark
1	GND	Power Ground	Power
2~3	NC	No connection	-
4	VDD	Power Supply for Digital Circuit	Power
5	U/D	Vertical Inversion (Normally pull low, U→D scan)	Input
6	L/R	Horizontal Inversion (Normally pull high, L→R scan)	Input
7	RESET	Hardware global reset and low active	Input
8	STBYB	Standby mode, Normally pulled high STBYB=”1”, normal operation STBYB=”0”, timing controller, source drive will	Input
9	GND	Power Ground	Power
10	Rxin0-	Data Lane 0N	Input
11	Rxin0+	Data Lane 0P	Input
12	GND	Power Ground	Power
13	Rxin1-	Data Lane 1N	Input
14	Rxin1+	Data Lane 1P	Input
15	GND	Power Ground	Power
16	RxCLK-	CLK Lane N	Input
17	RxCLK+	CLK Lane P	Input
18	GND	Power Ground	Power
19~37	NC	No connection	-
38	GND	Power Ground	Power
39	AVDD	Power for Analog Circuit	Input
40	GND	Power Ground	Power
41	VGH	TFT Gate On Voltage	Power
42	NC	No connection	-
43	VGL	TFT Gate Off Voltage	Power
44	NC	No connection	-
45~46	VLED-	LED Cathode	Power
47~48	NC	No connection	-
49~50	VLED+	LED Anode	Power