



深圳市拓普微科技开发有限公司
SHENZHEN TOPWAY TECHNOLOGY CO., LTD.

LMT101DNLFWD-NND10

LCD Module User Manual

Prepared by: Pengzhen Date: 2026-07-01	Checked by: Date:	Approved by: Date:
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Rev.	Descriptions	Edit	Release Date
0.1	Preliminary	Pengzhen	2026-07-01

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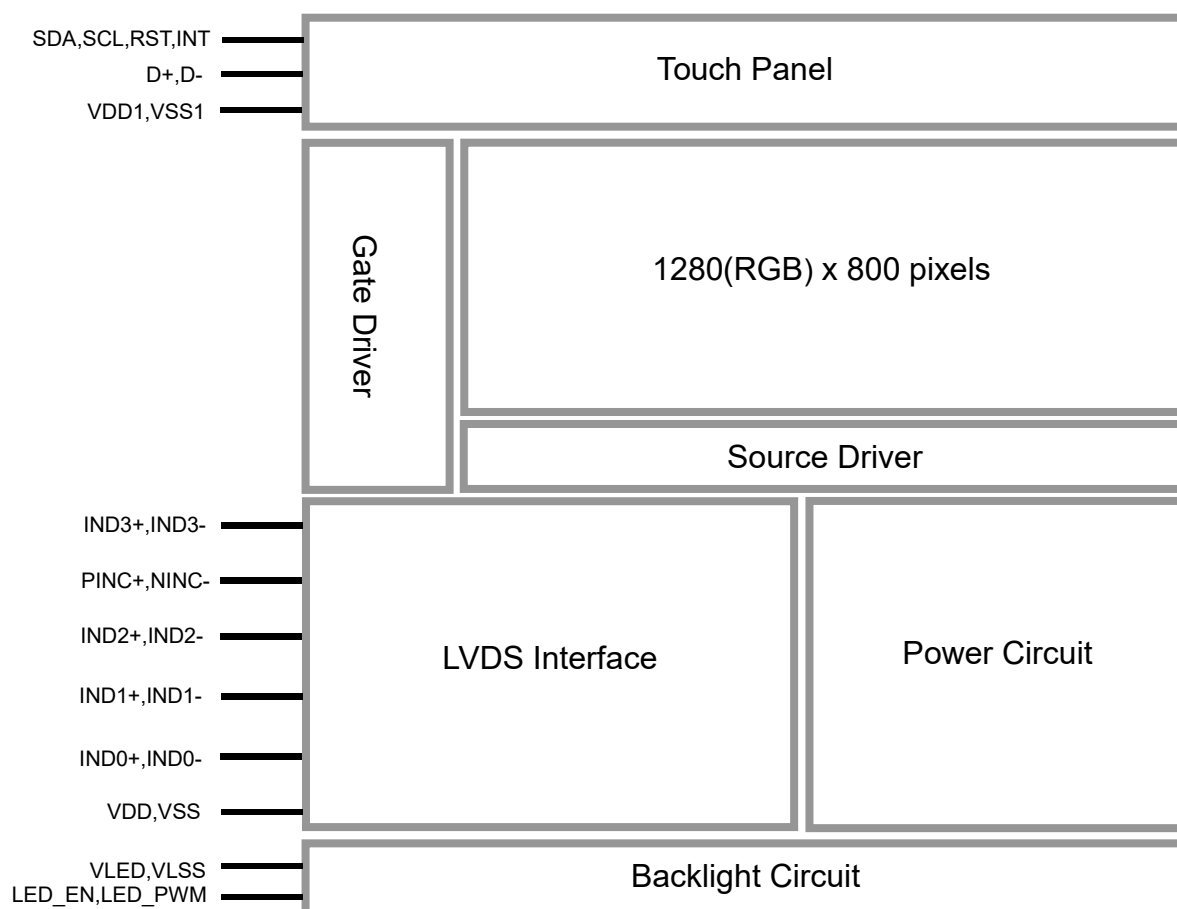
1. General Specification

Screen Size(Diagonal) :	10.1"
Active Area :	216.96x 135.60(mm)
Number of dots :	1280(RGB) x800
Pixel Pitch:	0.1695x0.1695(mm)
Color Depth:	16.7M
Display Technology :	a-Si
Signal Interface:	LVDS 18bit/24bit (VESA)
Display Mode:	Normal Black, Transmissive
Outline Dimension:	258.66x177.30x12.60(mm) (see outline drawing for details)
Pixel Configuration:	R.G.B. Vertical Stripe
Viewing Direction :	Full
Touch Panel Type :	Capacitive Touch Panel
Backlight :	White LEDs
Operating Temperature :	-20 ~ +70°C
Storage Temperature :	-30 ~ +80°C

Note:

*1. Color tone may slightly change by temperature and driving condition.

2. Block Diagram



3. Terminal Function

3.1 CN1 TFT Input Terminal(JAE FI-SE20P-HFE-E3000or equivalent)

NO	Symbol	I/O	Description	Comment
1	IND3+	I	Positive LVDS Differential data input(3)	
2	IND3-	I	Negative LVDS Differential data input(3)	
3	NC	N	No connection	
4	SEL6/8	I	6bit/8bit mode select H : 6-bit mode L or Open : 8-bit mode	
5	VSS	P	Power Ground	
6	PINC+	I	Positive LVDS Differential clock input	
7	NINC-	I	Negative LVDS Differential clock input	
8	VSS	P	Power Ground	
9	IND2+	I	Positive LVDS Differential data input(2)	
10	IND2-	I	Negative LVDS Differential data input(2)	
11	VSS	P	Power Ground	
12	IND1+	I	Positive LVDS Differential data input(1)	
13	IND1-	I	Negative LVDS Differential data input(1)	
14	VSS	P	Power Ground	
15	IND0+	I	Positive LVDS Differential data input(0)	
16	IND0-	I	Negative LVDS Differential data input(0)	
17	VSS	P	Power Ground	
18	NC	N	No Connection	
19	VDD	P	Power Supply(3.3V)	
20	VDD	P	Power Supply(3.3V)	

Note1: I/O definition: I---Input, O---Output, P---Power/Ground, N---No connection

Note2: All of the GND pins should be connected to the system ground.

3.2 CN2 Backlight Terminal (JAE FI-S6P-HFE-E1500 or equivalent)

NO	Symbol	I/O	Description	Comment
1	VLED	P	Backlight power supply(12V)	
2	VLED	P	Backlight power supply(12V)	
3	VLSS	P	VLED Ground	
4	VLSS	P	VLED Ground	
5	LED_EN	I	Backlight on/off control	
6	LED_PWM	I	Backlight dimming control	

Note1: I/O definition: I---Input, O---Output, P---Power/Ground, N---No connection

3.3 CN3 CTP Terminal (MOLEX 53261-0871 Or Equivalent)

NO	Symbol	I/O	Description	Comment
1	VDD1	P	Power for CTP(5V)	
2	D-	I/O	USB data- pin	
3	D+	I/O	USB data+ pin	
4	VSS1	P	Power Ground	
5	SCL	I	Clock Signal	
6	SDA	I	Data Signal	
7	INT	O	Interrupt Signal, Falling Edge Effective	
8	RST	I	Reset Signal	

Note1: I/O definition: I---Input, O---Output, P---Power/Ground, N---No connection

Note2: Capacitor screen can support USB interface and IIC interface, but it cannot be used at the same time.

4. Absolute Maximum Ratings

Items	Symbol	Min.	Max.	Unit	Condition
Power Voltage	VDD	-0.3	3.4	V	
Input voltage for Display signals	VDDRX	-0.3	3.4	V	Note1
Power supply voltage for Backlight	VLED	-0.3	12.5	V	
Input voltage for Backlight signals	LED_EN	-0.3	12.5	V	
	LED_PWM	-0.3	4	V	
Input voltage for CTP	VDD1	-0.3	5.5	V	
Operating Temperature	Top	-20	70	°C	
Storage Temperature	Tst	-30	80	°C	
Relative Humidity Note2	RH	-	≤95	%	Ta≤40°C
		-	≤85	%	40°C < Ta≤50°C
		-	≤55	%	50°C < Ta≤60°C
		-	≤36	%	60°C < Ta≤70°C
		-	≤24	%	70°C < Ta≤80°C
Absolute Humidity	AH	-	≤70	g/m ³	Ta>70°C

Note1: VDDRX include IND0-/+, IND1-/+, IND2-/+, IND3-/+, PINC, NINC

Note2: Ta means the ambient temperature. It is necessary to limit the relative humidity to the specified temperature range. Condensation on the module is not allowed.

Note3: The absolute maximum rating values of this product are not allowed to be exceeded at any times. A module should be used with any of the absolute maximum ratings exceeded, the characteristics of the module may not be recovered, or in an extreme condition, the module may be permanently destroyed

5. Electrical Characteristics

5.1 DC Characteristics for Panel Driving

VCC=3.3V, GND=0V, T_{op}=25°C

Items	Symbol	MIN.	TYP.	MAX.	Unit	Remark
Supply Voltage	VCC	3.2	3.3	3.4	V	
Input Signal Voltage	Low Level	VIL	GND	-	0.2xVDD	V
	High Level	VIH	0.8xVDD	-	VDD	V
Output Signal Voltage	Low Level	VOL	GND	-	0.2xVDD	V
	High Level	VOH	0.8xVDD	-	VDD	V
Power Consumption	60Hz	P	-	TBD	-	mW
						White patten

Note: All display qualities are guaranteed only under the TYP value.

5.2 DC Characteristics for Backlight Driving

T_{op}=25°C

Items	Symbol	MIN.	TYP.	MAX.	Unit	Remark
Backlight power supply voltage	VLED	11.5	12	12.5	V	
Backlight Current	I _{VLED}	-	600	-	mA	36 LEDs (6 LED Parallel, 6 LED Serial)
Backlight Power Consumption	WBL	-	7200	-	mW	
PWM frequency	F _{pwm}	100	-	50K	Hz	
PWM duty	D	5	-	100	%	
LED life time	-	-	50000	-	Hrs	

Note1: Optical performance should be evaluated at Ta=25°C only.

Note2: If LED is driven by high current, high ambient temperature & humidity condition, The life time of LED will be reduced.

Note3: Operating life means brightness goes down to 50% of initial brightness. Typical operating life time is estimated data.

5.3 DC Characteristics for CTP Driving

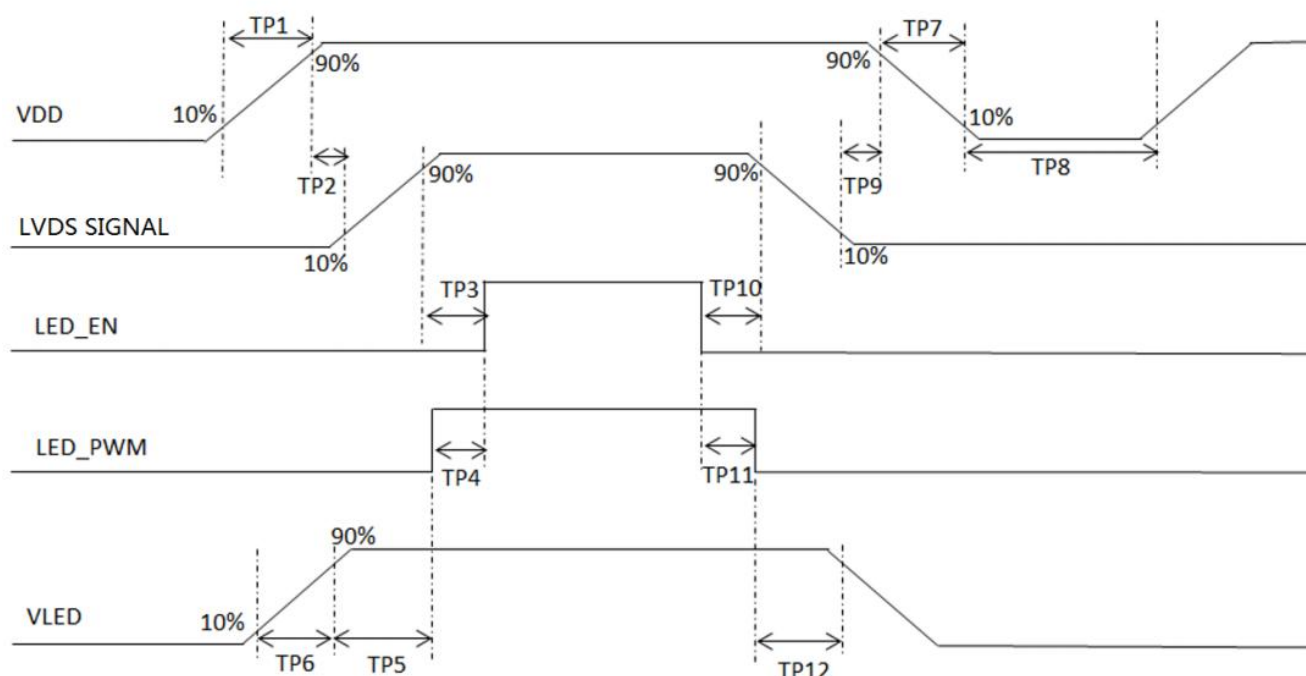
T_{op}=25°C

Items	Symbol	MIN.	TYP.	MAX.	Unit	Remark
Power supply voltage	VDD1	4.7	5.0	5.3	V	
Power supply current	I _{VDD1}	-	100	-	mA	Note1

Note1: All current measurement is average current at Operating mode.

5.4 Recommended Power ON/OFF Sequence

Items	Symbol	Min	Typ	Max	Unit	Remark
VDD on to VDD stable	Tp1	0.5	-	10	ms	
VDD stable to signal on	Tp2	200	-	-	ms	
Signal on to LED_EN on	Tp3	200	-	-	ms	
LED_PWM on to LED_EN on	Tp4	0	-	200	ms	
VLED to LED_PWM on	Tp5	10	-	-	ms	
VLED on to VLED stable	Tp6	0.5	-	10	ms	
VDD off time	Tp7	0	-	10	ms	
VDD off to next VDD on	Tp8	1000	-	-	ms	
Signal off before VDD off	Tp9	0	-	50	ms	
LED_EN off before signal off	Tp10	200	-	-	ms	
LED_EN off before LED_PWM off	Tp11	0	-	200	ms	
LED_PWM off before VLED off	Tp12	10	-	-	ms	



Note1: It is advised that backlight turned on later than display stabled.

Note2: The low level of these signals and analog powers are GND level.

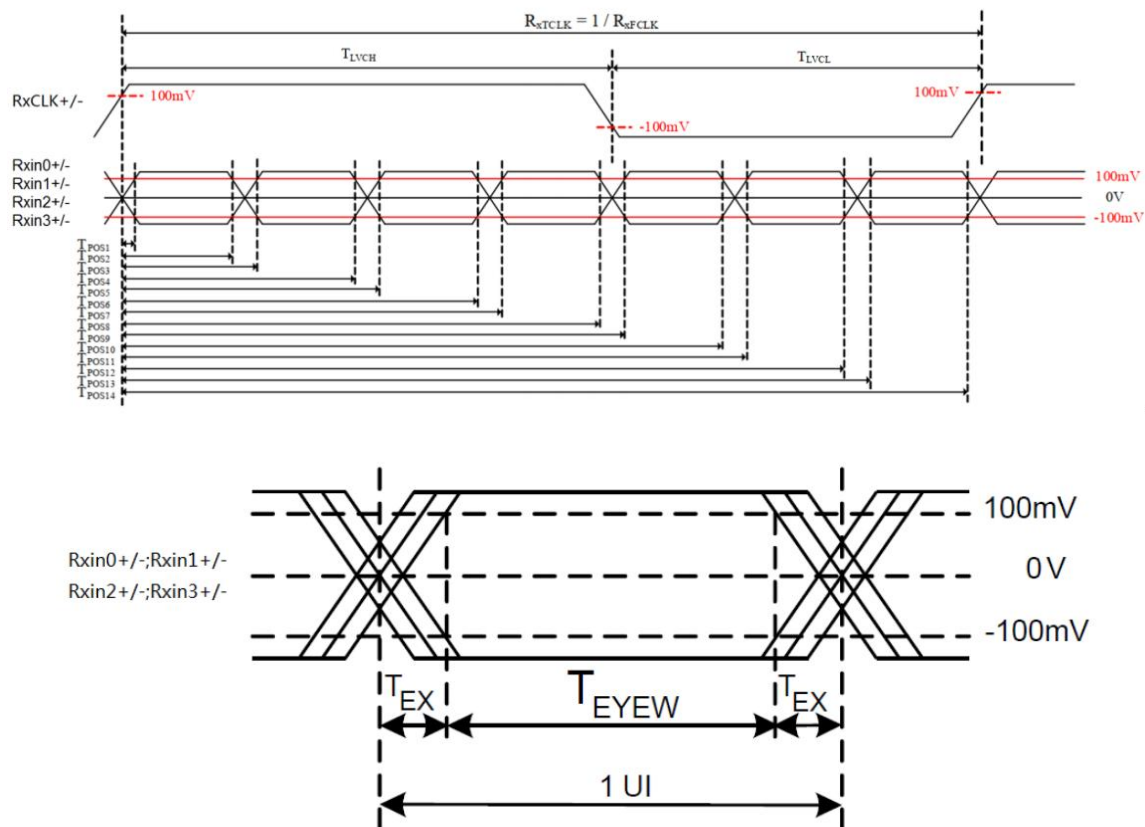
Note3: All of the power and signals should be kept at GND level before power on. If there are residual voltages on them, the LCD might not work properly.

6. Timing Characteristics

6.1 AC characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Remark
1 data bit time	UI	-	1/7	-	R_{XTCLK}	
Clock high time	T_{LVCH}	-	4	-	UI	
Clock low time	T_{LVCL}	-	3	-	UI	
Position 1	T_{POS1}	-0.25	0	0.25	UI	
Position 2	T_{POS2}	0.75	-	1.25	UI	
Position 3	T_{POS3}	0.75	1	1.25	UI	
Position 4	T_{POS4}	1.75	-	2.25	UI	
Position 5	T_{POS5}	1.75	2	2.25	UI	
Position 6	T_{POS6}	2.75	-	3.25	UI	
Position 7	T_{POS7}	2.75	3	3.25	UI	
Position 8	T_{POS8}	3.75	-	4.25	UI	
Position 9	T_{POS9}	3.75	4	4.25	UI	
Position 10	T_{POS10}	4.75	-	5.25	UI	
Position 11	T_{POS11}	4.75	5	5.25	UI	
Position 12	T_{POS12}	5.75	-	6.25	UI	
Position 13	T_{POS13}	5.75	6	6.25	UI	
Position 14	T_{POS14}	6.75	-	7.25	UI	
Input eye width	T_{EYEW}	0.5	-	-	UI	
Input eye border	T_{EX}	-	-	0.25	UI	

Input Setup Timing Parameters Requirement

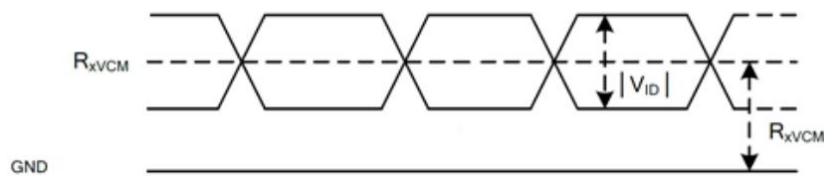


Clock and Data Input Timing Diagram

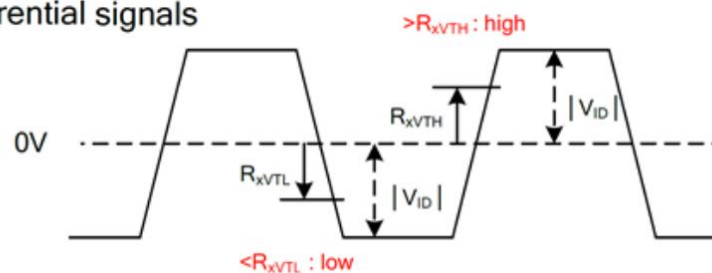
6.2 LVDS DC characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Remark
Differential input high Threshold voltage	R_{XVTH}	-	-	0.1	V	
Differential input Low Threshold voltage	R_{XVTL}	-0.1	-	-	V	
Input voltage range(single-end)	R_{XVIN}	0	-	VDD-1.0	V	VDD=3.3V
Differential input common Mode voltage	R_{XVCM}	0.6	1.2	$2.4- V_{ID} /2$	V	
Differential input voltage	$ V_{ID} $	$>R_{XVT}$	0.4	0.6	V	
Differential input leakage current	R_{Vxliz}	-10	-	10	μA	

Single end signals



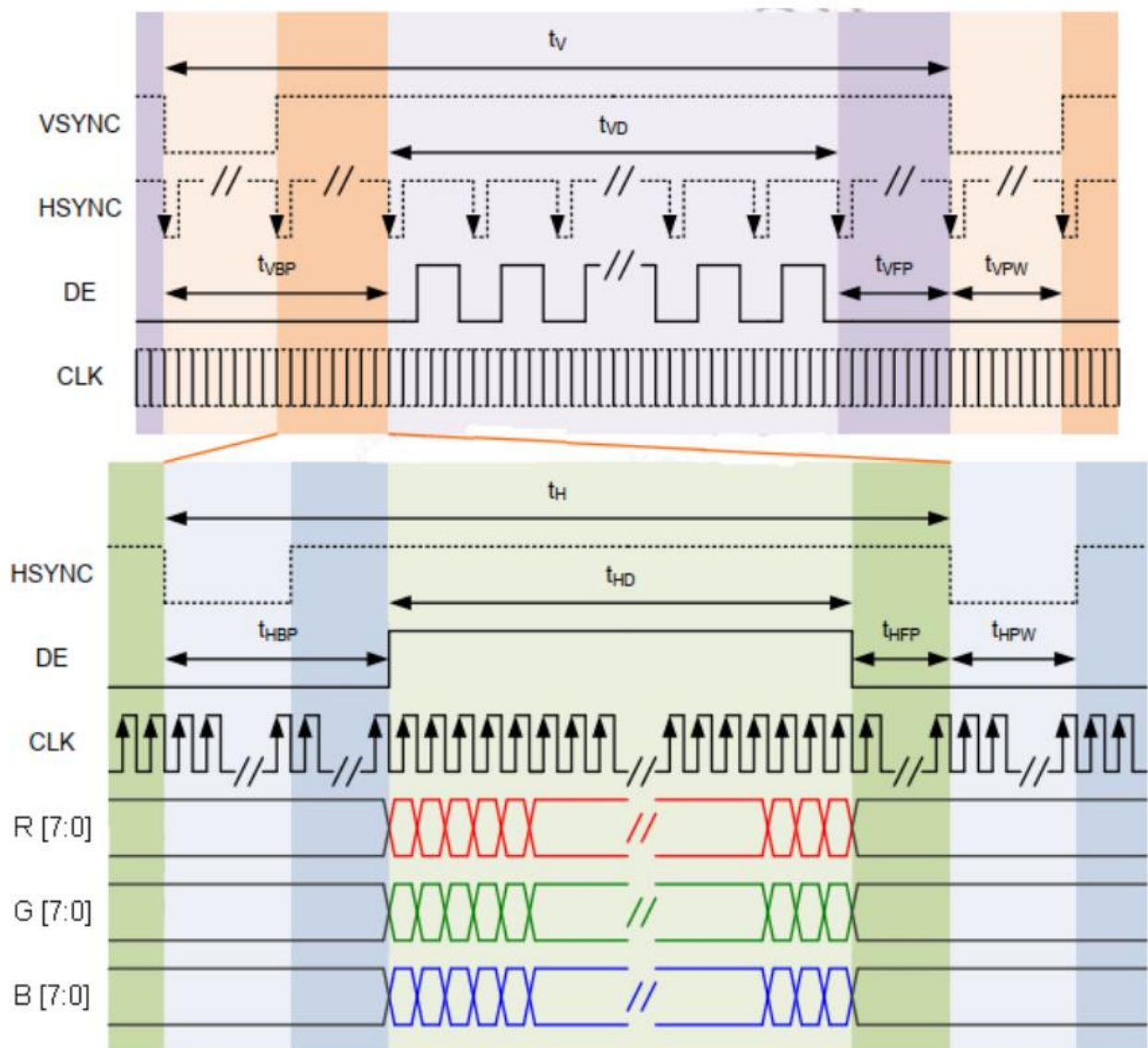
Differential signals



LVDS DC characteristics

6.3 Data Input timing Parameter Setting

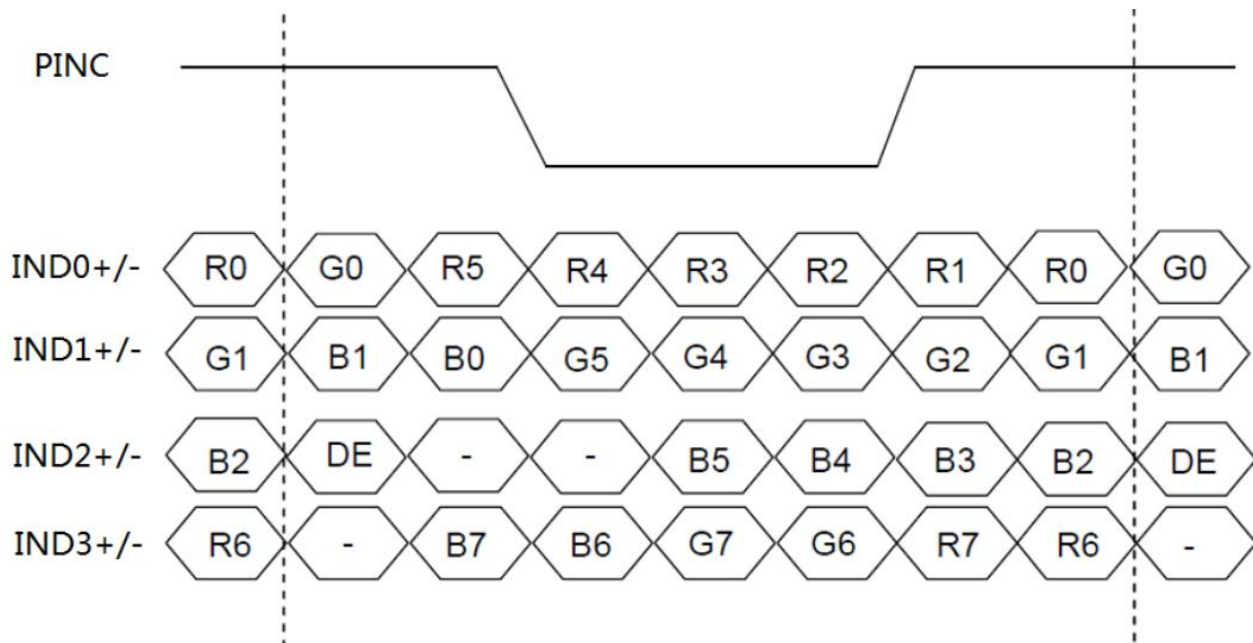
Parameter	Symbol	Min	Typ	Max	Unit
CLK frequency	tclk	68.1	69.8	71.4	MHz
Horizontal display area	thd	1280			tclk
Horizontal Blanking time	thbt	79	104	129	tclk
HSYNC period	th	1359	1384	1409	tclk
Vertical display area	tvd	800			th
Vertical Blanking time	tvbt	35	40	45	th
VSD period	tv	835	840	845	th
Frame rate	FR	60			Hz



Data Input timing Parameter Setting

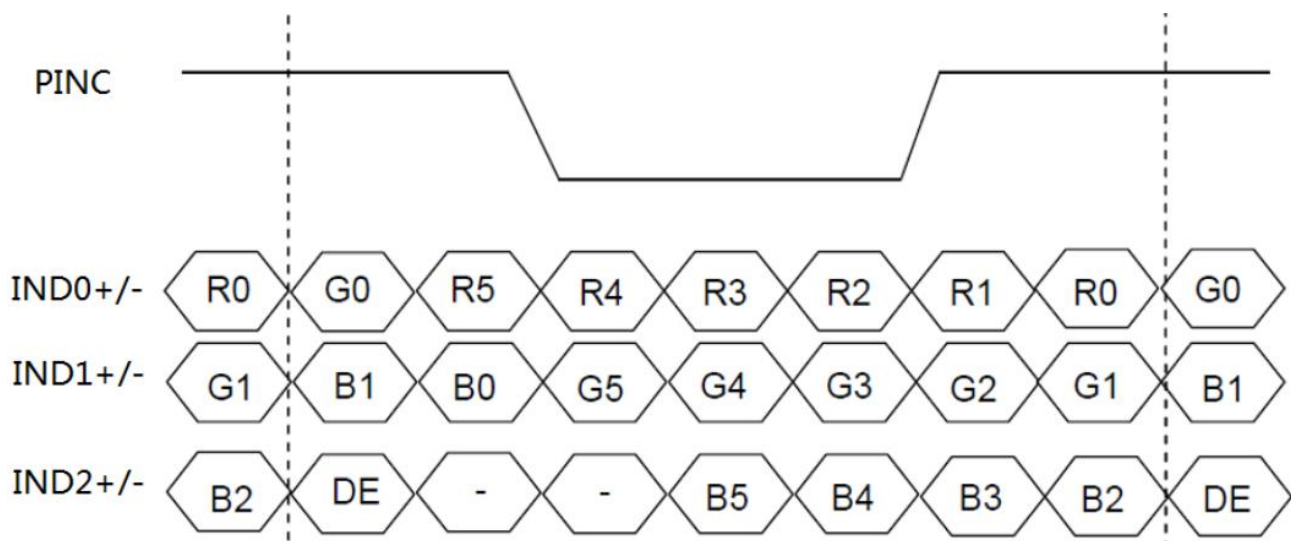
6.4 Data Input Format

8-bit mode data input



8-bit Data Input Format

6-bit mode data input



6-bit Data Input Format

7. Optical Characteristics

Item		Symbol	Condition	MIN	TYP	MAX	Unit	Remark
Viewing angle		θ_T	$CR \geq 10$	80	89	-	degree	Note2,3
		θ_B		80	89	-		
		θ_L		80	89	-		
		θ_R		80	89	-		
Contrast Ratio		CR	$\theta=0^\circ$	900	1200	-		Note3
Response Time		T_{ON}	$25^\circ C$		35	45	ms	Note4
		T_{OFF}						
Chromaticity	White	x	Backlight is on	0.252	0.302	0.352	-	Note1,5
		y		0.277	0.327	0.377		
	Red	x		0.532	0.582	0.632	-	
		y		0.274	0.324	0.374		
	Green	x		0.300	0.350	0.400	-	
		y		0.532	0.582	0.632		
	Blue	x		0.104	0.154	0.204	-	
		y		0.044	0.094	0.144		
Uniformity		U		75	80	-	%	Note6
NTSC		-		67	72	-	%	Note5
Luminance		L		700	850	-	cd/m ²	Note7

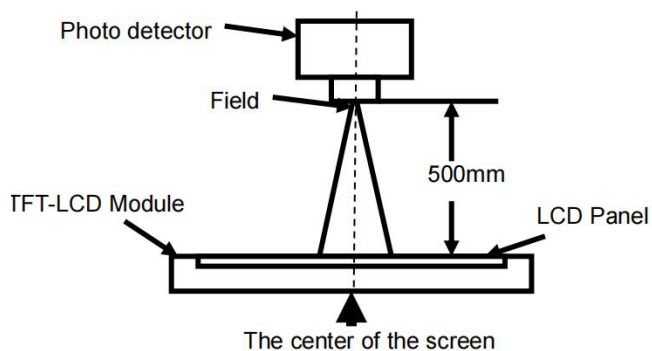
Test Conditions:

1. The ambient temperature is $25^\circ C$.

2. The test systems refer to Note1 and Note2.

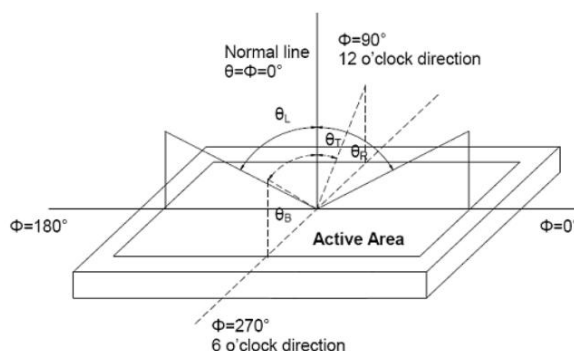
Note1: Definition of optical measurement system.

The optical characteristics should be measured in dark room. After 5 Minutes operation, the optical characteristics are measured at the center point of the LCD screen.



Measurement Set Up

Note2: Definition of viewing angle range and measurement system. Viewing angle is measured at the center point of the LCD.



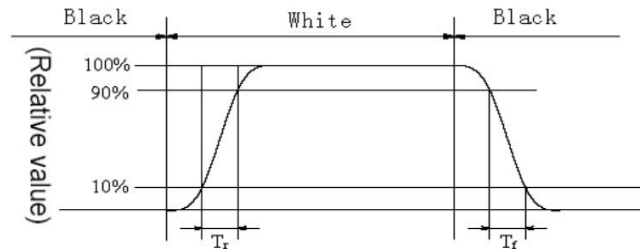
Measurement viewing angle

Note3: Definition of contrast ratio

$$\text{Contrast ratio (CR)} = \frac{\text{Luminance measured when LCD is on the "White" state}}{\text{Luminance measured when LCD is on the "Black" state}}$$

Note4: Definition of Response time

For SFT LCM, the response time is defined as the LCD optical switching time interval between "White" state and "Black" state. Rise time (T_r) is the time between photo detector output intensity changed from 10% to 90%. And fall time (T_f) is the time between photo detector output intensity changed from 90% to 10%.



Response Time Testing(SFT)

Note5: Definition of color chromaticity (CIE1931)

Color coordinates measured at center point of LCD.

Note6: Definition of Luminance Uniformity

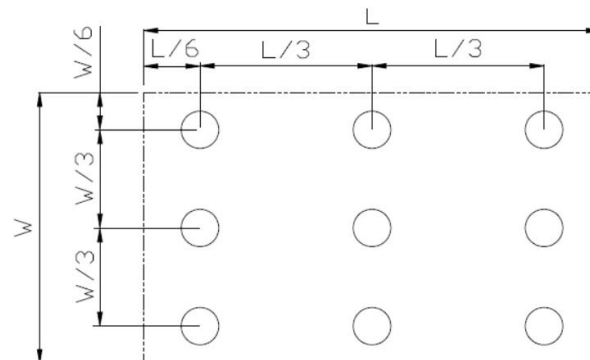
Active area is divided into 9 measuring areas (Refer Fig.5). Every measuring point is placed at the center of each measuring area.

Luminance Uniformity (U) = L_{min} / L_{max}

L_{max} : The measured Maximum luminance of all measurement position.

L_{min} : The measured Minimum luminance of all measurement position.

L -----Active area length; W ----- Active area width



Luminance Uniformity Measurement Locations(9 points)

Note7: Definition of Luminance:

Measure the luminance of white state at center point.

8. LCD Module Design and Handling Precautions

- Please ensure V0, VCOM is adjustable, to enable LCD module get the best contrast ratio under different temperatures, view angles and positions.
- Normally display quality should be judged under the best contrast ratio within viewable area. Unexpected display pattern may come out under abnormal contrast ratio.
- Never operate the LCD module exceed the absolute maximum ratings.
- Never apply signal to the LCD module without power supply.
(No Hot-plugging)
- WARNING! Be aware of (if any) frame grounding of the LCD Module connection with the system which may cause safety issue(e.g. electric shock,etc).
- Keep signal line as short as possible to reduce external noise interference.
- IC chip (e.g. TAB or COG) is sensitive to light. Strong light might cause malfunction. Light sealing structure casing is recommended.
- Make sure there is enough space (with cushion) between case and LCD panel, to prevent external force passed on to the panel; otherwise that may cause damage to the LCD and degrade its display result.
- Avoid showing a display pattern on screen for a long time (continuous ON segment).
- LCD module reliability may be reduced by temperature shock.
- When storing and operating LCD module, avoids exposure to direct sunlight, high humidity, high or low temperature. They may damage or degrade the LCD module.
- Never leave LCD module in extreme condition (max./min storage/operate temperature) for more than 48hr.
- Recommend LCD module storage conditions is 0℃~40℃ <80%RH.
- LCD module should be stored in the room without acid, alkali and harmful gas.
- Avoid dropping & violent shocking during transportation, and no excessive pressure press, moisture and sunlight.
- LCD module can be easily damaged by static electricity. Please maintain an optimum anti-static working environment to protect the LCD module. (eg. ground the soldering irons properly)
- Be sure to ground the body when handling LCD module.
- Only hold LCD module by its sides. Never hold LCD module by applying force on the heat seal or TAB.
- When soldering, control the temperature and duration avoid damaging the backlight guide or diffuser which might degrade the display result such as uneven display.
- Never let LCD module contact with corrosive liquids, which might cause damage to the backlight guide or the electric circuit of LCD module.
- Only clean LCD with a soft dry cloth, Isopropyl Alcohol or Ethyl Alcohol. Other solvents (e.g. water) may damage the LCD.
- Never add force to components of LCD module. It may cause invisible damage or degrade the module's reliability.
- When mounting LCD module, please make sure it is free from

8. 液晶显示模块设计和使用须知

- 请注意 V0, VCOM 的设置, 以确保液晶显示模块在不同的使用温度下以及在不同的视角和位置观察模块显示, 均能达到最佳对比度, 请务必将应用电路上设置为对比度可调。
- 请注意液晶显示模块的显示品质判定是指在正常对比度下以及视窗(V.A)范围内进行的, 非正常对比度下液晶可能会出现非预期的显示不良, 应注意区分。
- 请勿在最大额定值以外使用液晶显示模块。
- 请勿在没有接通电源的条件下, 给液晶显示模块输送信号。(禁止热插拔)
- 警告! 使用前需评估液晶显示模块的金属框架/壳体地(如有)与整机关系和安全性(如: 漏电安全性, 等)。
- 请尽可能缩短信号线的连接, 以避免对液晶显示模块的信号干扰。
- 集成电路因 IC 芯片(如 TAB 或 COG)对紫外线极为敏感, 强光环境下可能会引起液晶显示模块功能失效, 故应采用不透光的外壳。
- 请在液晶显示模块与外壳之间保留足够的空间(可使用衬垫), 以缓冲外力对液晶显示模块的损坏或因受力不均而产生的显示不匀等异常现象。
- 避免液晶显示屏在某一画面下长时间点亮, 否则有出现残影的风险; 请通过软件每隔一段时间改变一次画面。
- 液晶显示模块的可靠性可能因温度冲击而降低。
- 请勿在阳光直射、高湿、高温或低温下储存和使用液晶显示模块, 这将造成液晶显示模块的损坏或失效。
- 请勿在极限环境(最大/最小存储/工作温度)下使用或放置液晶显示模块超过 48 小时以上。
- 液晶显示模块建议存储条件为: 0℃~40℃ <80%RH。
- 请勿让液晶显示模块存储于带有 酸性, 碱性, 有害气体环境之中。
- 在运输过程中, 请勿让液晶显示模块跌落与猛烈震动, 同时避免 异常挤压, 高湿度, 与 阳光照射
- 液晶显示模块极易受静电损坏, 请务必保证液晶显示模块在防静电的工作环境中使用或保存。(如: 烙铁正确接地, 等)
- 拿取液晶显示模块时需注意操作人员的接地情况。
- 请手持液晶显示模块的边沿取放模块, 防止热压纸或 TAB 部位受力。
- 焊接液晶模块时, 请注意控制烙铁的温度、焊接时间, 以免烫坏导光板或偏光片, 导致显示不匀等不良现象发生。
- 请勿使用洗板水等腐蚀性液体接触液晶模块, 以免腐蚀导光板或模块电路。
- 仅可使用柔软的干布, 异丙醇或乙醇清洁液晶屏表面, 其他任何溶剂(如: 水)都有可能损坏液晶模块。
- 请勿挤压液晶显示模块上的元器件, 以避免产生潜在的损坏或失效而影响产品可靠性。
- 装配液晶显示模块时, 请务必注意避免液晶显示模块

twisting, warping and bending.

- Do not add excessive force on surface of LCD, which may cause the display color change abnormally.
- LCD panel is made with glass. Any mechanical shock (e.g. dropping from high place) will damage the LCD module.
- Protective film is attached on LCD screen. Be careful when peeling off this protective film, since static electricity may be generated.
- Polarizer on LCD gets scratched easily. If possible, do not remove LCD protective film until the last step of installation.
- When peeling off protective film from LCD, static charge may cause abnormal display pattern. The symptom is normal, and it will turn back to normal in a short while.
- LCD panel has sharp edges, please handle with care.
- Never attempt to disassemble or rework LCD module.
- If display panel is damaged and liquid crystal substance leaks out, be sure not to get any in your mouth, if the substance comes into contact with your skin or clothes promptly wash it off using soap and water.

的扭曲或变形。

- 请勿挤压液晶显示屏表面，这将导致显示颜色的异常。
- 液晶屏由玻璃制作而成，任何机械碰撞(如从高处跌落)均有可能损坏液晶显示模块。
- 液晶屏表面带有保护膜，揭除保护膜时需要注意可能产生的静电。
- 因液晶显示屏表面的偏光片极易划伤，安装完成之前请尽量不要揭下保护膜。
- 请缓慢揭除保护膜，在此过程中液晶显示屏上可能会产生静电，此为正常情况，可在短时间内消失。
- 请注意避免被液晶显示屏的边缘割伤。
- 请不要试图拆卸或改造液晶显示模块。
- 当液晶显示屏出现破裂，内部液晶液体可能流出；相关液体不可吞吃，绝对不可接触嘴巴，如接触到皮肤或衣服，请使用肥皂与清水彻底清洗。

9. CTP Mounting Instructions

9.1 Bezel Mounting (Figure 1)

- The bezel window should be bigger than the CTP active area. It should be $\geq 0.5\text{mm}$ each side.
- Gasket should be installed between the bezel and the CTP surface. The final gap should be about $0.5\sim 1.0\text{mm}$.
- It is recommended to provide an additional support bracket for backside support when necessary (e.g. slim type TFT module without mounding structure). They should only provide appropriate support and keep the module in place.
- The mounting structure should be strong enough to prevent external uneven force or twist act onto the module.

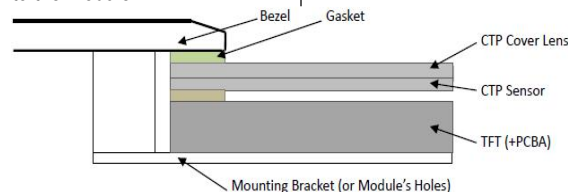


Figure 1

9.2 Surface Mounting (Figure 2)

- As the CTP assembling on the countersink area with double side adhesive. The countersink area should be flat and clean to ensure the double side adhesive installation result.
- The Bezel is recommend to keep a gap ($\geq 0.3\text{mm}$ each side) around the cover lens for tolerance.
- It is recommended to provide an additional support bracket with gasket for backside support when necessary (e.g. TFT module without mounding structure). They should only provide appropriate support and keep the module in place.
- The mounting structure should be strong enough to prevent external uneven force or twist act onto the module

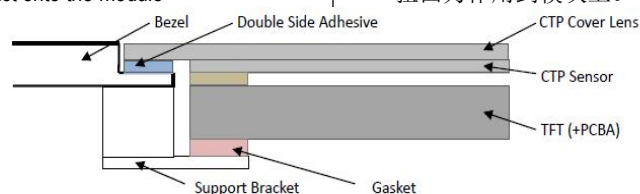


Figure 2

9. 电容触摸屏安装指导

9.1 面框安装（附图 1）

- 客户面框窗口应大于 CTP 动作区域，各边离动作区应 $\geq 0.5\text{mm}$ 。
- 面框与 CTP 面板间应垫有胶垫，其最终间隙约为 $0.5\sim 1.0\text{mm}$ 。
- 建议必要时在背面提供附加支架(例如无安装结构的薄型 TFT 模块)，应仅利用适当支撑以保持模块位置。
- 安装结构应具有足够的强度，以防止外部不均匀力或扭曲力作用到模块上。

9.2 嵌入安装（附图 2）

- 客户面框应具有使用双面胶粘贴 CTP 的结构沉台面，其粘贴面要求平整且洁净无污染以保证粘贴牢靠。
- 考虑到制作误差，建议面框与 CTP 盖板之间四周留有 $\geq 0.3\text{mm}$ 间隙。
- 建议必要时在背面提供垫有胶垫附加支架(例如无安装结构的 TFT 模块)，应仅利用适当支撑以保持模块位置。
- 安装结构应具有足够的强度，以防止外部不均匀力或扭曲力作用到模块上。

10. TFT QA Standard

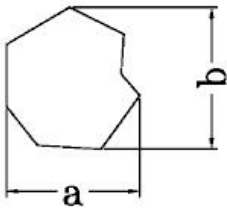
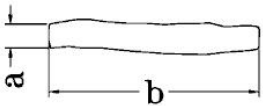
10.1 INSPECTION CONDITION 检验条件

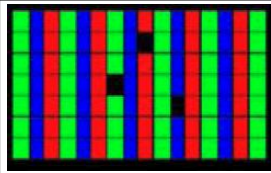
Unless otherwise stated, all the inspections are carryout under the following condition

除非有特别的规定，检验条件按以下执行。

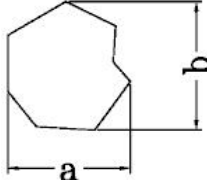
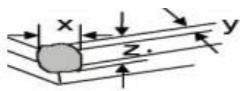
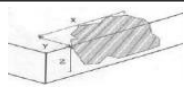
No.	Items 项目	Conditions 条件
1	Lighting 照明	Illumination: Appearance 300-700Lux 环境亮度在 300~700LUX
2	Inspection Distance 检验距离	30-40cm form the test sample, within normal viewing angle 眼睛距显示器表面 30~40cm
3	Temperature 环境温度	Room Temperature (25 °C), no condensation 室温 (25 度±5%), 无凝水
4	Viewing Angle 视角	U/D: 45°/45°, L/R: 45°/45° 前后 45 度角范围内, 左右 45 度角范围内
5	Inspection Time 检验时间	15 seconds 15 秒内
6	Defect Allowance 缺陷总数	6 max 允许 6 个

10.2 Display Pattern 显示缺陷

No.	Items /Contents 检查项目		Type 类别		Standard 标准	Judgment 判定
			MA	MI		
1	No Display 无显示		√		--	Not Allowed 不允许
2	Line defect 缺少行或列		√		--	Not Allowed 不允许
3	Display abnormally 错误的显示		√		--	Not Allowed 不允许
4	Function Defective 缺少功能		√		--	Not Allowed 不允许
5	Glass Crack 玻璃破碎		√		--	Not Allowed 不允许
6	Spot Defect Including (Inside AA) : Black spot, White spot, Foreign particle, Polarizer dirt, Cell particle 黑点/白点 (AA 内)			√	$(a+b)/2 \leq 0.25$	Allowed 允许
					$0.25 < (a+b)/2 \leq 0.5$	4 max. 允许 4 个
					$(a+b)/2 > 0.5$	Not Allowed 不允许
7	Line Defect Including (Inside AA) : Black line, White line, Scratch 线 (AA 内)			√	$a \leq 0.1$	Allowed 允许
					$0.1 < a \leq 0.2$ and $b \leq 5.0$	4max. 允许 4 个
					$a > 0.2$ or $b > 5.0$	Not Allowed 不允许
9	Bright dot defect 亮点 (在全黑屏下多像素点)			√	Random	3 max. 允许 3 个
					3 consecutive dots 3 个或以上连续的点	Not Allowed 不允许

10	Dark dot defect 暗点 (在全红或全绿或全蓝屏下缺像素点)			√	Random	5 max. 允许 5 个
					3 consecutive dots 3 个或以上连续的点	Not Allowed 不允许
13	Bright dot defect + Dark dot defect 亮点 + 暗点			√	--	5 max. 允许 5 个
15	PCBA defect PCBA 缺陷		--	--	Refer to IPC-A-610 按照 IPC-A-610	--

10.3 Exterior 外观缺陷

No.	Items /Contents 检查项目	Type 类别		Standard 标准	Judgment 判定
		MA	MI		
1	Polarizer Dent/Bubble (Inside AA) : 偏光片气泡 (AA 内) 		√	$(a+b)/2 \leq 0.3$	Ignore 忽略
				$0.3 < (a+b)/2 \leq 0.6$	3 max. 允许 3 个
				$(a+b)/2 > 0.7$	Not Allowed 不允许
2	FPC	√		Broken 破损	Not Allowed 不允许
		√		naked wire、hole 裸线、孔洞	Not Allowed 不允许
3	Bezel scratches, pits, bumps, Don't try dirt 外框划痕、凹点、凸点、脏污		√	Do not affect display, assembly, ignore. 不影响显示, 组装则忽略	
4	Protective film 保护膜		√	Top injury、scratch、Wear scar Undamaged Polarizer, 顶伤、擦伤、磨损 未损坏偏光片	ignore 忽略
				dirt, particle 脏污	ignore 忽略
5	TP/Glass defect 触摸屏、显示屏损伤		√	1. Corner Fragment: 崩角 	
				$X \leq 2\text{mm}; Y \leq 2\text{mm}; Z \leq T$ (Glass thickness)	Ignore 忽略
				2. Side Fragment: 崩边 	
				$X \leq 3.0\text{mm}; Y \leq 3.0\text{mm}; Z \leq T$ (Glass thickness)	Ignore 忽略

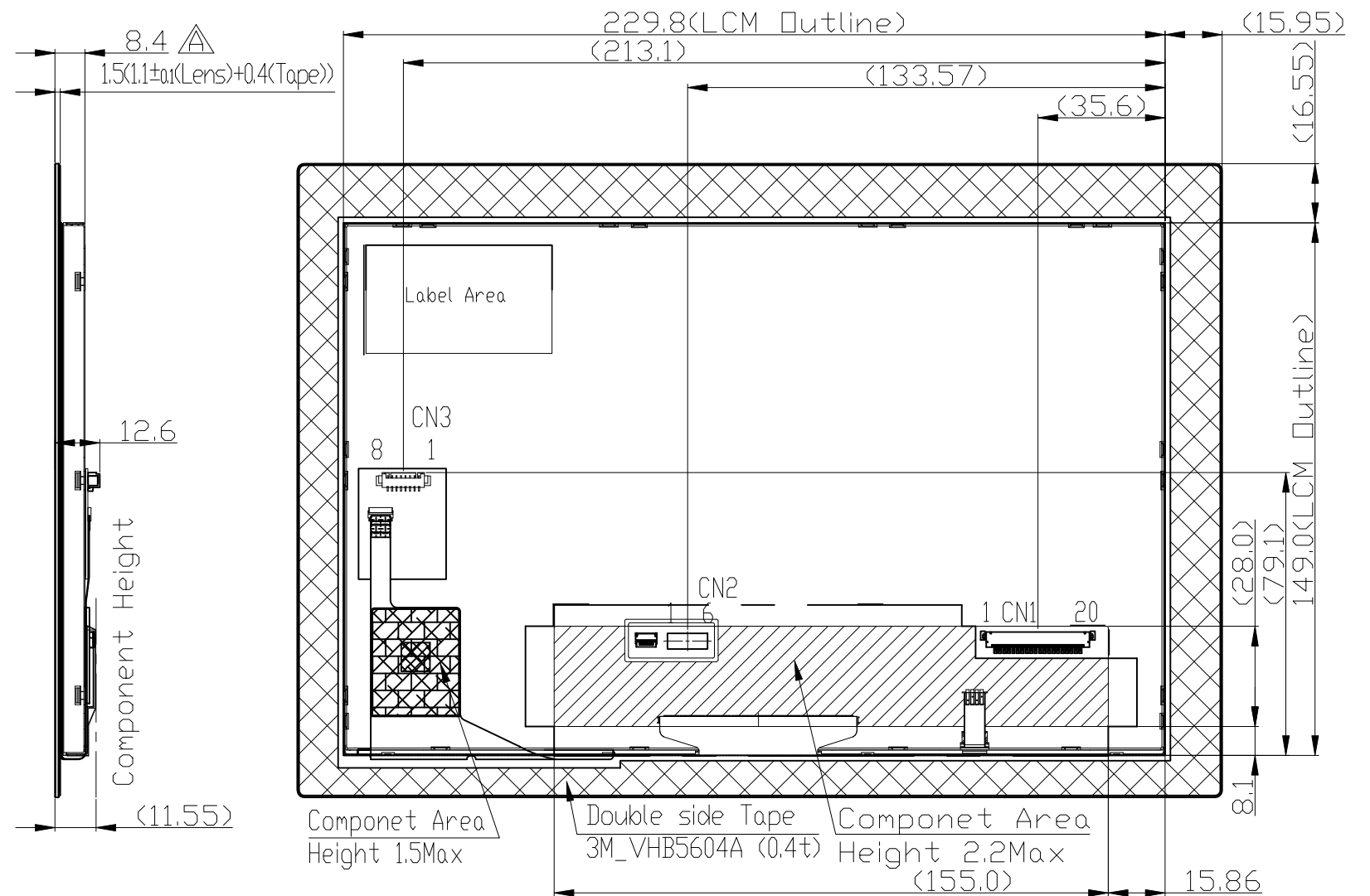
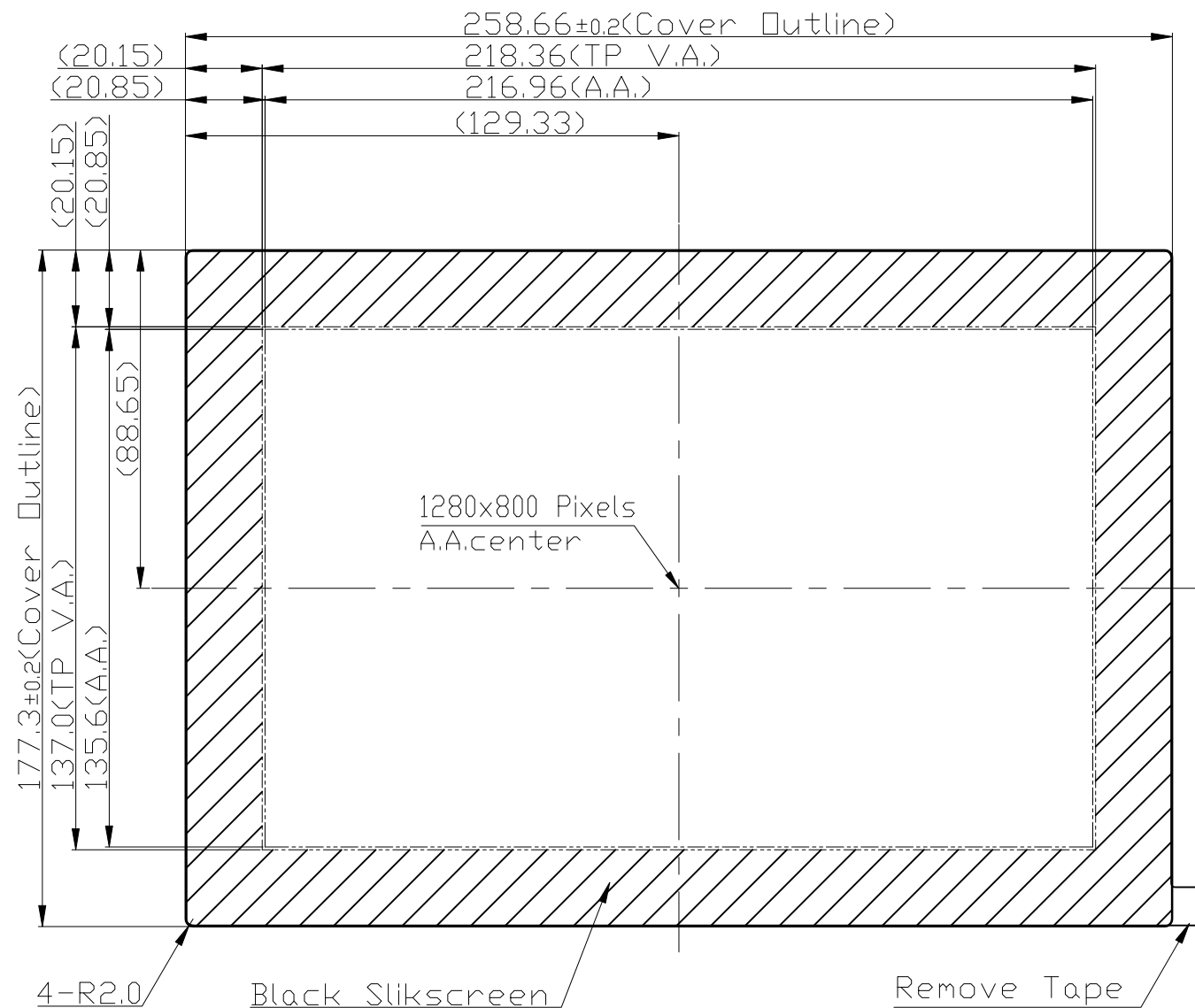
10.4 Quality Level and Sampling 抽样方法

Items 项目	Standard 标准
Sampling Standard 引用标准	MIL-STD-105E
Sampling Level 抽样等级	II
AQL level 合格判定水平	MA: AQL=0.65 MI: AQL=1.0

Warranty

This product has been manufactured to our company's specifications as a part for use in your company's general electronic products. It is guaranteed to perform according to delivery specifications. For any other use apart from general electronic equipment, we cannot take responsibility if the product is used in medical devices, nuclear power control equipment, aerospace equipment, fire and security systems, or any other applications in which there is a direct risk to human life and where extremely high levels of reliability are required. If the product is to be used in any of the above applications, we will need to enter into a separate product liability agreement.

- We cannot accept responsibility for any defect, which may arise from additional manufacturing of the product (including disassembly and reassembly), after product delivery.
- We cannot accept responsibility for any defect, which may arise after the application of strong external force to the product.
- We cannot accept responsibility for any defect, which may arise due to the application of static electricity after the product has passed our company's acceptance inspection procedures.
- When the product is in CCFL models, CCFL service life and brightness will vary according to the performance of the inverter used, leaks, etc. We cannot accept responsibility for product performance, reliability, or defect, which may arise.
- We cannot accept responsibility for intellectual property of a third party, which may arise through the application of our product to our assembly with exception to those issues relating directly to the structure or method of manufacturing of our product.



Note:

- *1. LCD Display Type: TFT.Transmissive(Full view)
- *2. Pixel Arrangment: RGB-STRIPE
- *3. Color Depth : 16.7M/262k Colors
- *4. Interface: LVDS(VESA 24bit Or 18bit)
- *5. Terminal:
 - CN1: JAE FI-SE20P-HFE-E3000 Or Equivalent
 - CN2: JAE FI-S6P-HFE-E1500 Or Equivalent
 - CN3: MOLEX 53261-0871 Or Equivalent
- *6. TFT Supply : 3.3V
- *7. CTP Supply : 5.0V, (IIC 3.3V Logic) $\triangle$
- *8. Backlight: White LEDs
- *9. Backlight Supply: 12.0V
- *10. Touch Panel Type: Capacitive Touch Panel
- *11. Operating Temperature : -20°C~70°C
- *12. Storage Temperature : -30°C~80°C
- *13. Unmarked Tolerance : ≤150,±0.3; >150,±0.5

CN2 Terminal	
1	VLED
2	VLED
3	VLSS
4	VLSS
5	LED_EN
6	LED_PWM

$\triangle$ CN3 Terminal	
1	VDD1
2	D-
3	D+
4	VSS1
5	SCL
6	SDA
7	INT
8	RST

CN1 Terminal	
No	Pin Name
1	IND3+
2	IND3-
3	NC
4	SEL6/8
5	VSS
6	PINC+
7	NINC-
8	VSS
9	IND2+
10	IND2-
11	VSS
12	IND1+
13	IND1-
14	VSS
15	IND0+
16	IND0-
17	VSS
18	NC
19	VDD
20	VDD

D		
C		
B		
A	Add IIC interface	Taoqingwen 2026-06-27
Rev	Note	Date
Dwg	Title	
LMT101DNLFWD-NND10 Outline Dwg		
Dwg No.	MK-009112a-1-1	Date 2026-04-23
Scale	4/5	Tol.
Unit	mm	Paper Size A3
Approved	Checked	Drawn Taoqingwen
TOPWAY		