

Shenzhen Leadtek Electronics Co.,Ltd



PRODUCT SPECIFICATION

TFT-LCD MODULE


Module No: LTK070WX24HFM030-V0

☒ Preliminary Specification

☐ Approval Specification

Designed by	Checked by	Approved by
		

Final Approval by Customer

Approved by	Comment
	<div>Distributed by:  www.texim-europe.com</div>

※The specification of "TBD" should refer to the measured value of sample . If there is difference between the design specification and measured value, we naturally shall negotiate and agree to solution with customer.

Revision History

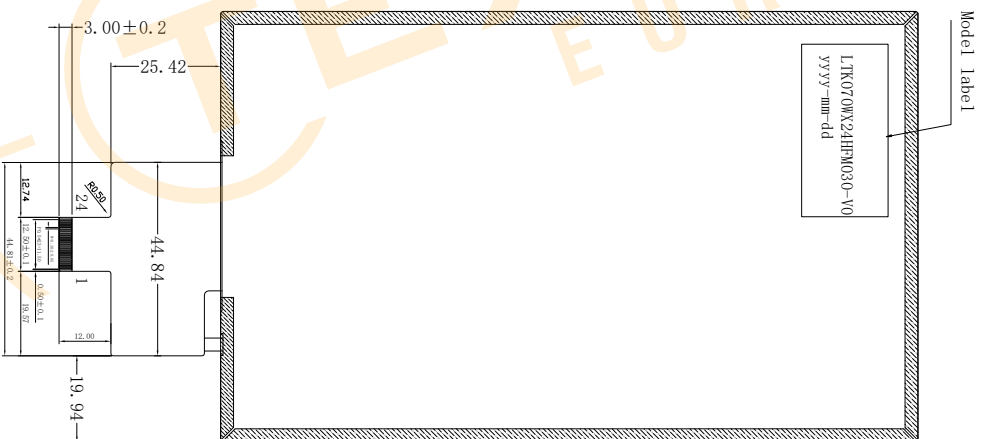
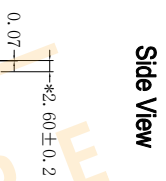
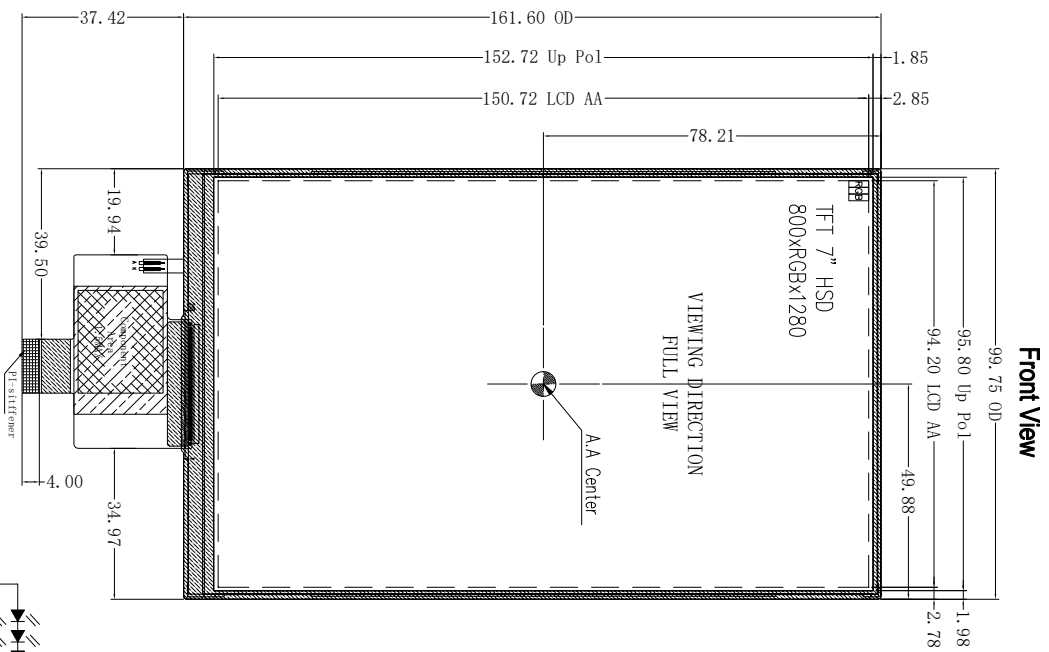
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1. Numbering System

TBD

2. General Information

ITEM	STANDARD VALUES	UNITS
LCD type	7.0" TFT	--
Dot arrangement	800(RGB) × 1280	dots
Color filter array	RGB vertical stripe	--
Display mode	Transmissive / Normally Black	--
Viewing Direction	ALL	--
Module size	99.75(W) × 161.6(H) × 2.6(T)	mm
Active area	94.2(W) × 150.72(H)	mm
Dot pitch	0.11775(W) × 0.11775(H)	mm
Interface	2 Lane MIPI	--



Display Pin interface

1	NC
2	R
3	A
4	NC
5	NC
6	GND
7	NC
8	NC
9	IOVCC
10	VCI
11	GND
12	LCD_RESN
13	LCD_TE
14	GND
15	MPI_CLKP
16	MPI_CLKN
17	GND
18	MPI_DLP
19	MPI_DIN
20	GND
21	MPI_DOP
22	MPI_DON
23	GND
24	NC

THE NOTES:

1. DISPLAY TYPE: 7.0"ips-TFT 800*RGB*1280 TRANSMISSIVE/Normally Black
2. VIEWING DIRECTION: 80/80/80(U/D/L/R @ CR>10)
3. LCD DRIVE IC: ILI9881C
4. Luminance (LCM) : 380cd/m² (MIN), 420cd/m² (TYP), Uniformity ≥80%
5. Connector: /
6. OPERATING TEMP: -20° C~+70° C
7. STORAGE TEMP: -30° C~+80° C
8. UNMARKER TOLERANCE: ± 0.20
9. REQUIREMENTS ON ENVIRONMENTAL PROTECTION: RoHS

$\frac{3}{2}$			
$\frac{2}{1}$			
$\frac{1}{1}$			
$\frac{1}{0}$		2021.9.15	Allen
REV	DESCRIPTION	DATE	NAME



Shenzhen Leadtek Electronics Co., Ltd

SCALE: 1/1		UNIT: mm	PAGE: 1/1		Approve	Check	Drawn
Part No:	LTKO70MX24HFMO30		VER: V0				
Customer No:						IAN	Allen

4. Interface Description

Pin NO.	SYMBOL	DESCRIPTION
1	NC	No connection
2	K	Power for LED backlight (Cathode).
3	A	Power for LED backlight (Anode).
4	NC	No connection
5	NC	No connection
6	GND	Power ground.
7	NC	No connection
8	NC	No connection
9	IOVCC	I/O power supply.
10	VCI	System power supply.
11	GND	Power ground.
12	LCD_RESX	Device reset signal.
13	LCD_TE	Tearing effect output pin to synchronize MPU to frame writing.
14	GND	Power ground.
15	MIPI_CLKP	MIPI-DSI CLOCK differential signal input pins.
16	MIPI_CLKN	MIPI-DSI CLOCK differential signal input pins.
17	GND	Power ground.
18	MIPI_D1P	MIPI-DSI Data differential signal input pins. (Data lane 1+)
19	MIPI_D1N	MIPI-DSI Data differential signal input pins. (Data lane 1-)
20	GND	Power ground.
21	MIPI_D0P	MIPI-DSI Data differential signal input pins. (Data lane 0+)
22	MIPI_D0N	MIPI-DSI Data differential signal input pins. (Data lane 0-)
23	GND	Power ground.
24	NC	No connection

5. Absolute Maximum Ratings

Item	Symbol	Min.	Max.	Unit
Logic Supply Voltage	IOVCC	-0.3	3.6	V
Analog Supply Voltage	VCI	-0.3	6.6	V

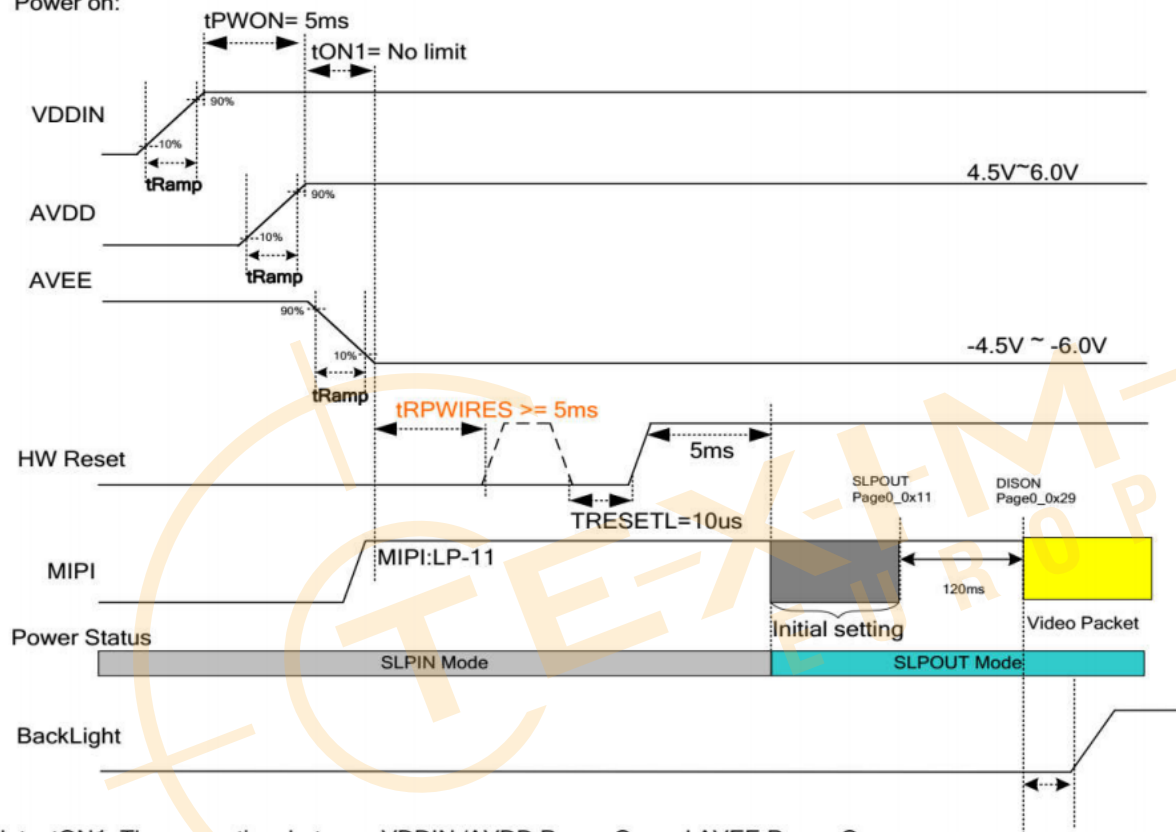
6. DC Characteristics

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Supply Voltage	VDDIN	3.0	3.3	3.6	V	-
Current Consumption	I _{VDDIN}	-	30	40	mA	VDDIN=3.3V

Power on sequence

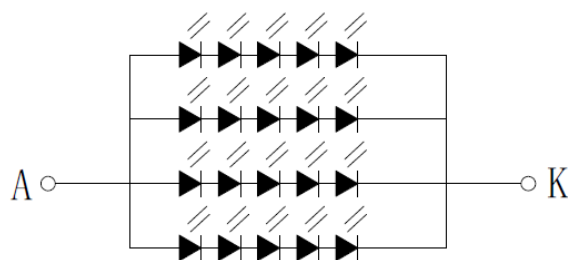
VDDIN = 3.0 V ~ 3.6V, AVDD= 4.5V ~ 6.0V, AVEE=-4.5V ~ -6.0V

Power on:



Note: t_{ON1} : The space time between VDDIN /AVDD Power On and AVEE Power On.

7. Backlight Characteristics

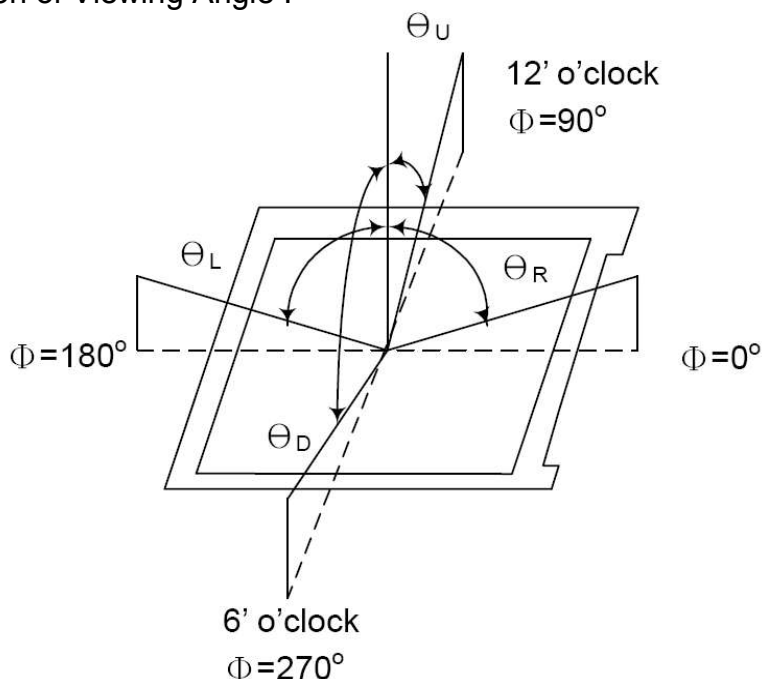


Item	Symbol	MIN	TYP	MAX	UNIT	Test Condition
Supply Voltage	Vf	14.5	16	17.5	V	If=80mA
Luminous Intensity for LCM	-	380	420	-	cd/m ²	If=80mA
Uniformity for LCM	-	75	80	-	%	If=80mA
LED Life Time	-	20,000	-	-	Hr	If=80mA
Backlight Color	White					

8. Optical Characteristics

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit	Remark		
Viewing Angle range	Horizontal	Θ_3	CR > 10	80	89	-	Deg.	Note 1		
		Θ_9		80	89	-	Deg.			
	Vertical	Θ_{12}		80	89	-	Deg.			
		Θ_6		80	89	-	Deg.			
Color Gamut				45	50	55	%	-		
Tr.				-	6.8	-	%	With APF		
Luminance Contrast ratio		CR	$\Theta = 0^\circ$	700	850	-	-	Note 2		
Luminance of White	Center Points	Y_w	$\Theta = 0^\circ$	-	-	-	cd/m ²	Note 3		
White Luminance uniformity	9 Points	$\Delta Y5$		-	-	-	%	Note 4		
White balance		Color Temp	$\Theta = 0^\circ$	-	-	-	K	Note 5		
		Δuv		-	-	-	-			
Reproduction of color	Red	R_x	$\Theta = 0^\circ$		0.610		-	Note6		
		R_y			0.350					
	Green	G_x			0.340					
		G_y			0.570					
	Blue	B_x			0.160					
		B_y			0.120					
Response Time (Rising + Falling)		T_{RT}	Ta= 25° C $\Theta = 0^\circ$	-	30	35	ms	Note 7		
Gamma Scale		CT	$\Theta = 0^\circ$	-	-	-	-	-		

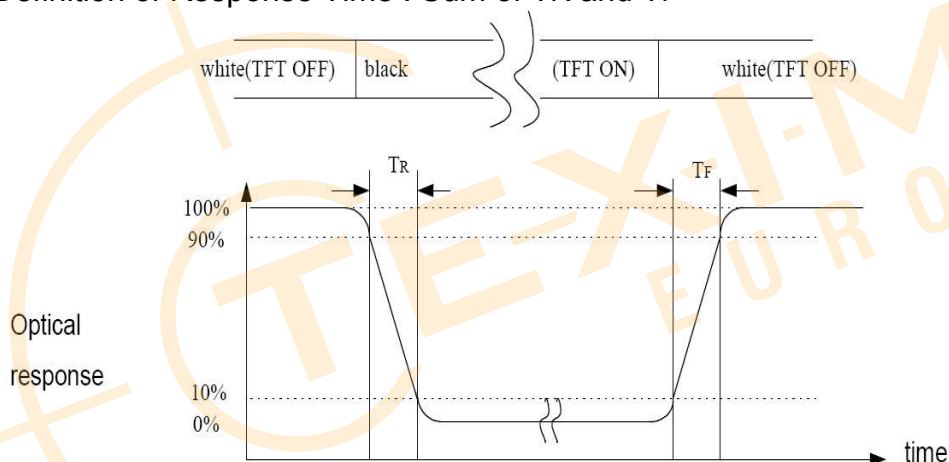
Note (1) Definition of Viewing Angle :



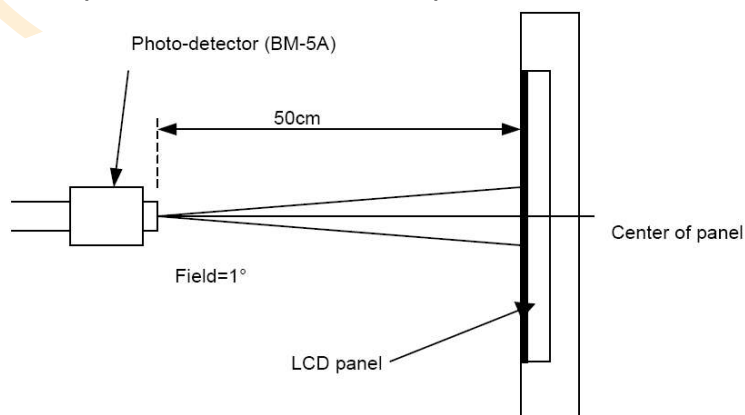
Note (2) Definition of Contrast Ratio(CR) : Measured at the center point of panel

CR = Luminance with all pixels white / Luminance with all pixels black

Note (3) Definition of Response Time : Sum of TR and TF



Note (4) Definition of optical measurement setup



Note (5) Rubbing Direction (The different Rubbing Direction will cause the different optima view direction).

9 . Reliability Test Conditions And Methods

NO.	TEST ITEMS	TEST CONDITION	INSPECTION AFTER TEST
①	High Temperature Storage	80℃±2℃×48Hours	Inspection after 2~4hours storage at room temperature,the samples should be free from defects: 1,Air bubble in the LCD. 2,Sealleak. 3,Non-display. 4,Missing segments. 5,Glass crack. 6,Current IDD is twice higher than initial value. 7,The surface shall be free from damage. 8,The electric charateristic requirements shall be satisfied.
②	Low Temperature Storage	-30℃±2℃×48Hours	
③	Temperature Cycle(Storage)	<div><div>-20℃ (30min)</div><div>↔</div><div>25℃ (5min)</div><div>↔</div><div>70℃ (30min)</div><div>1cycle</div><div>Total 10cycle</div></div>	
④	Damp Proof Test (Storage)	50℃±5℃×90%RH×48Hours	
⑤	Vibration Test	Frequency:10Hz~55Hz~10Hz Amplitude:1.5M X,Y,Z direction for total 3hours (Packing Condition)	
⑥	Drooping Test	Drop to the ground from 1M height one time every side of carton. (Packing Condition)	
⑦	ESD Test	± 2KV, Human Body Mode, 100pF/1500Ω	
<div>Note 1: Ta is the ambient temperature of samples.</div> <div>Note 2: Ts is the temperature of panel's surface.</div> <div>Note 3: In the standard condition, there shall be no practical problem that may affect the display function. After the reliability test, the product only guarantees operation, but don't guarantee all of the cosmetic specification.</div> <div>Note 4: Before cosmetic and function test, the product must have enough recovery time, at least 2 hours at room temperature.</div>			

10. Handling Precautions

10.1 Mounting method

The LCD panel of LeadtekLCD module consists of two thin glass plates with polarizes which easily be damaged. And since the module is so constructed as to be fixed by utilizing fitting holes in the printed circuit board.

Extreme care should be needed when handling the LCD modules.

10.2 Caution of LCD handling and cleaning

When cleaning the display surface, Use soft cloth with solvent

[recommended below] and wipe lightly

- Isopropyl alcohol
- Ethyl alcohol

Do not wipe the display surface with dry or hard materials that will damage the polarizer surface.

Do not use the following solvent:

- Water
- Aromatics

Do not wipe ITO pad area with the dry or hard materials that will damage the ITO patterns

Do not use the following solvent on the pad or prevent it from being contaminated:

- Soldering flux
- Chlorine (Cl) , Sulfur (S)

If goods were sent without being silicon coated on the pad, ITO patterns could be damaged due to the corrosion as time goes on.

If ITO corrosion happens by miss-handling or using some materials such as Chlorine (Cl, Sulfur (S) from customer, Responsibility is on customer.

10.3 Caution against static charge

The LCD module use C-MOS LSI drivers, so we recommended that you:

Connect any unused input terminal to Vdd or Vss, do not input any signals before power is turned on, and ground your body, work/assembly areas, assembly equipment to protect against static electricity.

10.4 packing

- Module employ LCD elements and must be treated as such.
- Avoid intense shock and falls from a height.
- To prevent modules from degradation, do not operate or store them exposed direct to sunshine or high temperature/humidity

10.5 Caution for operation

- It is an indispensable condition to drive LCD's within the specified voltage limit since the higher voltage then the limit cause the shorter LCD life.
- An electrochemical reaction due to direct current causes LCD's undesirable deterioration, so that the use of direct current drive should be avoided.
- Response time will be extremely delayed at lower temperature then the operating temperature range and on the other hand at higher temperature LCD's show dark color in them. However those phenomena do not mean malfunction or out of order with LCD's, which will come back in the specified operation temperature.
- If the display area is pushed hard during operation, some font will be abnormally displayed but it resumes normal condition after turning off once.
- A slight dew depositing on terminals is a cause for electro-chemical reaction resulting in terminal open circuit.

Usage under the maximum operating temperature, 50%Rh or less is required.

10.6 storage

In the case of storing for a long period of time for instance, for years for the purpose or replacement use, the following ways are recommended.

- Storage in a polyethylene bag with the opening sealed so as not to enter fresh air outside in it . And with no desiccant.
- Placing in a dark place where neither exposure to direct sunlight nor light's keeping the storage temperature range.
- Storing with no touch on polarizer surface by the anything else.
[It is recommended to store them as they have been contained in the inner container at the time of delivery from us

10.7 Safety

- It is recommendable to crash damaged or unnecessary LCD's into pieces and wash off liquid crystal by either of solvents such as acetone and ethanol, which should be burned up later.
- When any liquid leaked out of a damaged glass cell comes in contact with your hands, please wash it off well with soap and water

11. Precaution For Use

11.1

A limit sample should be provided by the both parties on an occasion when the both parties agreed its necessity. Judgment by a limit sample shall take effect after the limit sample has been established and confirmed by the both parties.

11.2

On the following occasions, the handing of problem should be decided through discussion and agreement between responsible of the both parties.

- When a question is arisen in this specification
- When a new problem is arisen which is not specified in this specifications
- When an inspection specifications change or operating condition change in customer is reported to Leadtek LCD , and some problem is arisen in this specification due to the change
- When a new problem is arisen at the customer's operating set for sample evaluation in the customer site.

12. Packing Method

TBD



深圳市丽台电子有限公司

Shenzhen Leadtek Electronics Co.,Ltd

Quality Inspection Standards

品质允收标准

Model No. / 产品型号: Applies 5.5~10.0 Inch Touch Display Screen**Updated Date / 生效日期:** 2022-05-20**Version / 版本:** A0**Customer confirmation :** _____

Record of Revision / 修订履历

Version / 版本	Revision Record / 修订内容	Reviser / 修订人	Revision Date / 修订日期
V0	首发 / Starting	Green	2022.05.20

1.Scope of application /适用范围.

This document shall be applied to 5.5~10.0 inch touch display screen.

本文件适用于5.5~10.0 寸触摸显示屏.

2.Inspection conditions and environment /检验条件与环境.

2. 1 Inspection Conditions /检验条件:

(1) Inspection Distance /检测距离: 35cm \pm 5cm.

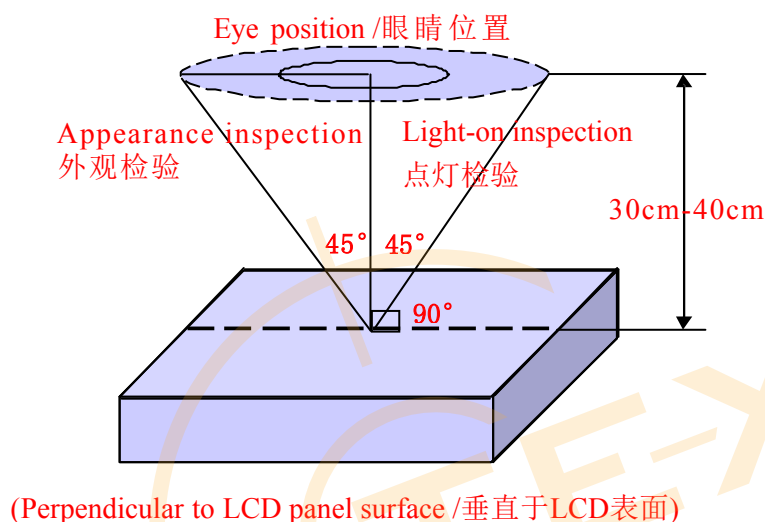
(2) Check time /检验时间:

Displays performance test /功能测试: 2~3S /Image, Cosmetic Inspection /外观检验:10~12S.

(3) Check the viewing angle /检验视角:

Light-on Inspection Angle /点灯检验角度: $\pm 45^\circ$.

Cosmetic Inspection Angle /外观检验角度: $\pm 45^\circ$.



2.2 Inspection environment /检验环境:

Ambient Temperature 温度		25°C \pm 5°C
Ambient Humidity 湿度		55 \pm 5%RH
Ambient Illumination 亮度	Cosmetic Inspection 外观检验	800-1000 Lux
	Functional Inspection 点灯检验	200~300Lux

2.3 Sampling Conditions /抽样条件:

(1) Quantity to be inspected /批量: Quantity of shipment lot per model /单次运送单一型号数量.

(2) Sampling method /抽样方法:

Sampling Plan /抽样计划		GB/T 2828.1- 2003
		Normal Inspection , Single Sampling 正常检验、单次抽样
		General inspection level: II 一般检验水平: 二级
AQL	Major Defect /主要缺陷	0.65
	Minor Defect /次要缺陷	1.0

(3) The classification of Major(MA) and Minor(MI) defects is shown as “3.1 Classification of defects” .
主缺(MA)及次缺(MI)定义于”3.1缺陷分类”.

3.Terms And Definitions /术语和定义

3.1 Classification of defects / 缺陷分类 :

(1) Major defects /主要缺陷:

A major defect is a defect that is likely to result in failure, or to reduce materially the usability of the product for its intended purpose .

可导致产品功能失效或减少产品可用性的缺陷.

(2) Minor defects /次要缺陷:

It will not cause the product to fail and reduce the defects in the effective use and operation of the product.

不会导致产品功能失效和减少产品的有效使用与操作的缺陷.

3.2 Point defects /点状缺陷:

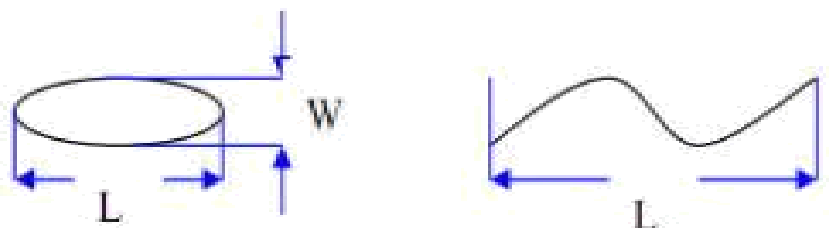
The size of the point defect is defined by the diameter D, and the average diameter of the defect is $D=1/2 (W+L)$.

点状缺陷的大小是由直径 D 定义的, 缺陷的平均直径 $D=1/2(W+L)$.

3.3 Linear defects /线状缺陷:

When defect size $L \geq 2W$, the defect count as liner type defect. Size of linear defect is defined by length (L) and the maximum width (W).

当缺陷尺寸 $L \geq 2W$ 时, 被视为线状缺陷, 线状缺陷是由长度 (L) 和最大宽度 (W) 定义的.



3.4 LCD sub-pixel dot /LCD子像素点

(1) Definition /定义 : The point defect area is greater than 50% of the LCD sub-pixel area, and is visible through ND5% filter masking .

子像素点缺陷面积大于 50% LCD子像素面积, 且透过 ND5%遮盖是可见的.

(2) The drawing of 1/2 area sub-pixel definition / 1/2 面积的子像素定义绘图:

The 1/2 area sub-pixel can be defined as below one or more of specific shapes

1/2 面积的子像素可以定义为如下一个或多个特定形状图:



3.5 Small bright dot /细碎亮点 :

Point defects smaller than "LCD sub-pixels" /小于“LCD子像素点”的点缺陷.

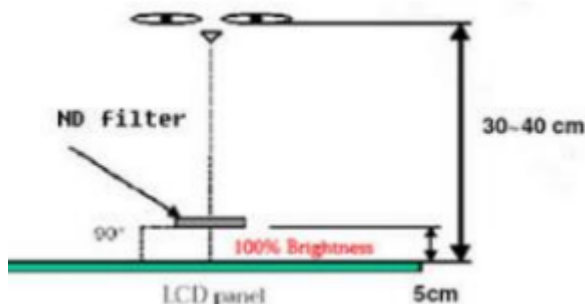
(Ratio of Zone I to Zone O / I 区与 O 区比例: 1: 2: 1)



3.6 ND filter inspection method /ND卡的检验方法:

Hold the ND filter about 5cm above the display area, with your eyes 30-40cm away from the panel, and observe for 2~3 seconds.

在显示区域上方大约 5cm 处握住 ND 卡, 眼睛距离面板 30-40cm, 观察2~3 秒.



3.7 Any FPC surface problems that do not leak copper on the surface and do not cause functional failure are acceptable.

任何 FPC 表面问题, 表面未露铜和不造成功能失效是可以接受.

3.8 Extraneous substances that can be wiped out , like Finger point,Particles are not considered as a defect .

可以被擦拭干净的表面物质不视为缺陷 (如手指印, 尘粒) .

3.9 Defects that can be covered by the material and are not visible in appearance are not considered defects.

能被物料覆盖，外观不可见的缺陷不视为缺陷。

3.10 Panel damage /面板损伤:

Glass damage outside the AA display area that does not affect the effective wiring is acceptable.

AA 显示区域以外的玻璃损伤，不影响有效线路是可以接受的。

3.11 Issues not specified or defined in this acceptance standard shall be handled through friendly negotiation between the two parties.

本允收标准中未规定或定义的问题，双方友好协商处理。

4. Inspection standards /检验标准

4.1 Structural Dimensions /结构尺寸规格

Serial Number 序号	Measurement items /测量项目		Specification /规格	Remark /备注
	名称 /Name	Unit /单位	Tolerance /公差	
1	Outside dimension: Length 尺寸: 长	mm /毫米	0.15mm~0.30mm	Please refer to the product specification for detailed dimensions and tolerances 详细的尺寸规格和公差请参考产品规格书
2	Outside dimension: Width 尺寸: 宽	mm /毫米	0.15mm~0.30mm	
3	Outside dimension: Thickness 尺寸: 高	mm /毫米	0.20mm~0.50mm	

4.2 Appearance Inspection Specification /外观检验规格

(D : diameter, W : width, L : length, N : quantity, DS : spacing)

Inspection area 检验区域	Inspection items 检验项目	Inspection specifications 检验规格	Defect category 缺陷类别	
Glass 玻璃	Wire(on Array) 线路	Can't be damaged 不能损伤	MA	
	Chipping/corner breaking 崩边/破角	Can't affect the effective lines and functions 不能影响有效线路和功能	MA	
	Edge 边缘	There must be no extensional cracks 不可有延伸性裂纹	MA	
Silicone 硅胶	Silicone coating 硅胶涂布	The height must not exceed the LCD CF surface 高度不能超过LCD CF面		MI
	Glue overflow 溢胶	Can't cover FPC, POL, etc 不能覆盖到FPC、POL等		MI

Inspection area 检验区域	Inspection items 检验项目	Inspection specifications 检验规格	Defect category 缺陷类别	
PCBA FPC Connector 连接器	Appearance 外观	Scratches or injuries are not allowed to cause copper exposure 划伤或损伤不允许表面出现露铜		MI
	Component 元器件	Can't be damaged and lack 不能损伤和缺少	MA	
	Goldfinger oxidation 金手指氧化	Not allowed 不允许		MI
	Connection status 连接状况	The connection must be accurate and stable 必须准确稳定连接	MA	
	Break 破裂	Not allowed 不允许	MA	
	Soldering, false soldering/tinning/tin beads 假焊/连锡/锡珠	Not allowed 不允许	MA	
POL 偏光片	Scratches 划伤	1. $W \leq 0.07\text{mm}$; $L \leq 5\text{mm}$, Ignore (忽略) 2. $0.07\text{mm} < W \leq 0.12\text{mm}$; $L \leq 5\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.12\text{mm} < W$; $5\text{mm} < L$, Not allowable (不允许)		MI
	Dent 凹凸印	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
	Bubbles 气泡	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
	Point defects 点状不良	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
	Edge bubbles 边缘气泡	1. Within 1/2BM of the display area, it is not allowed 显示区往外 1/2BM 区域内, 不允许 2. The display area is 1/2 outside the BM area, and it is not controlled 显示区往外 1/2BM 区域以外, 不管控		MI
	Dirty/watermarked 脏污/水印	No dirt/water lines/finger marks are allowed, and must be wiped clean 不允许有脏污/水纹/手指印, 须擦拭干净方可		MI
	Warping 起翘	Not allowed 不允许		MI
	Attaching offset 贴偏	It is necessary to completely cover the display area outward, within the 1/2BM area, or without leaking POL edges after TP is attached 需完整覆盖显示区往外、1/2BM 区以内或贴合 TP 后不会出现漏偏光片边缘		MI
	Mixture 混料	Mixing different types of POL or not using POL as required by the BOM, not allowed 不允许混贴不同型号的 POL 或未按 BOM 要求使用 POL	MA	

Inspection area 检验区域	Inspection items 检验项目	Inspection specifications 检验规格	Defect category 缺陷类别	
TP&CG	Point defects 点状不良	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
	Scratches 划伤	1. $W \leq 0.07\text{mm}$; $L \leq 5\text{mm}$, Ignore (忽略) 2. $0.07\text{mm} < W \leq 0.12\text{mm}$; $L \leq 5\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.12\text{mm} < W$; $5\text{mm} < L$, Not allowable (不允许) 4. There is a feeling scratch, Not allowable 有感划伤, 不允许		MI
	Edges and corners cracked 崩角/崩边	1. Product front / 产品正面: Edge and corner chipping is not allowed 崩角、崩边不允许 2. Product back / 产品背面: $X \leq 0.5$, $Y \leq 0.5$, $Z \leq 1/2T$; $N \leq 4$; $DS \geq 10\text{mm}$		MI
	Silk screen 丝印	The silk screen is clear, complete and correct 丝印清晰、完整、内容正确		MI
	Dirty 脏污	Non-wipeable dirt, not allowed 不可擦拭的脏污, 不允许		MI
	Broken 破损	Not allowable 不允许	MA	
	Ink color aberration 油墨色差	$\Delta E > 1$, Not allowable (不允许)		MI
	Cover pinholes 针孔	1. $D \leq 0.15\text{mm}$, $N \leq 4$, $DS \geq 10\text{mm}$, allowable 2. $D > 0.15\text{mm}$, intensive pinholes (密集型针孔), Not allowable (不允许)		MI
	IR holes IR孔	Dirt, deviation, color difference, etc. are not allowed 不允许脏污、偏位、色差等		MI
BL 背光	Backlight separation 背光分离	Not allowable 不允许		MI
	Deformation of rubber iron and rubber frame 胶铁、胶框变形	Use the plug gauge 0.3mm on the flat surface and can snap in and judge NG 在平面上使用塞规0.3mm卡翘曲位置, 能卡进判定NG		MI
	The iron frame is oxidized and not tightened 铁框氧化、卡不紧	Not allowable 不允许		MI
	Backlight sticky solder beads, glue, etc 背面粘锡珠、残胶等	Not allowable 不允许		MI
	Inkjet coding, Barcode, QR code 喷码/条码/二维码	The Inkjet coding is clear and complete, the barcode and QR code can be scanned normally, and the content and format match 喷码清晰完整、条码和二维码可正常扫描, 内容和格式相符		MI
	Accessories(protective film, double-sided tape, insulating adhesive, etc.) 辅料(保护膜、双面胶、绝缘胶等)	Defects such as missing pastes, sticking deviations, defects, and fractures are not allowed 不允许有漏贴、贴偏、残缺、断裂等缺陷		MI

4.3 Electrical test specifications /电性检查规格

(D : diameter, W : width, L : length, N : quantity, DS : spacing)

Inspection items 检验项目	Inspection specifications 检验规格	Defect category 缺陷类别	
Glass bright spots/dark spots 玻璃亮点/暗点	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
Mura	Use ND5% filter masking, visual invisibility is OK, 200~300Lux 使用ND5%遮盖, 目视不可见即为OK, 200~300Lux		MI
Small bright dot 细碎亮点	Use ND5% filter masking, visual invisibility is OK 使用ND5%遮盖, 目视不可见即为OK		MI
Light leakage 漏光	1. Use ND5% filter masking, visual invisibility is OK 使用ND5%遮盖, 目视不可见即为OK 2. If necessary, sign off on the sample 必要时, 签限定样		MI
Backlight black/white dots 背光黑点/白点	1. $D \leq 0.20\text{mm}$, Ignore (忽略) 2. $0.20\text{mm} < D \leq 0.40\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.40\text{mm} < D$, Not allowable (不允许)		MI
Linear foreign bodies 线状异物 (异物毛丝等)	1. $W \leq 0.07\text{mm}$; $L \leq 5\text{mm}$, Ignore (忽略) 2. $0.07\text{mm} < W \leq 0.12\text{mm}$; $L \leq 5\text{mm}$; $N \leq 4$; $DS \geq 10\text{mm}$ 3. $0.12\text{mm} < W$; $5\text{mm} < L$, Not allowable (不允许)		MI
Black/White Print 黑印/白印	Use ND5% filter masking, visual invisibility is OK 使用ND5%遮盖, 目视不可见即为OK		MI
The display is uneven 显示不均匀	Use ND5% filter masking, visual invisibility is OK 使用ND5%遮盖, 目视不可见即为OK		MI
The brightness is uneven 亮度不均匀	Brightness uniformity $< 85.0\%$, Not allowable 亮度均匀性 $< 85.0\%$, 不允许		MI
Displacement of the membrane 膜材移位	Not allowable 不允许		MI
Interference pattern/Newtonian pattern 干涉纹/牛顿纹	Not allowable 不允许		MI
Display abnormal 显示异常	Not allowable 不允许	MA	
No display 无显示	Not allowable 不允许	MA	
Line/Missing Drawing 线条/缺画	Not allowable 不允许	MA	
Splash screen 闪屏	Not allowable 不允许	MA	
LCD grid LCD网格	Not allowable 不允许	MA	
Afterimage 残影	Not allowable 不允许	MA	
Wrong viewing angle 视角错误	Not allowable 不允许	MA	
No touch 无触摸	Not allowable 不允许	MA	
Touch the jump point 触摸跳点	Not allowable 不允许	MA	
Not sensitive 触摸不灵敏	Not allowable 不允许	MA	

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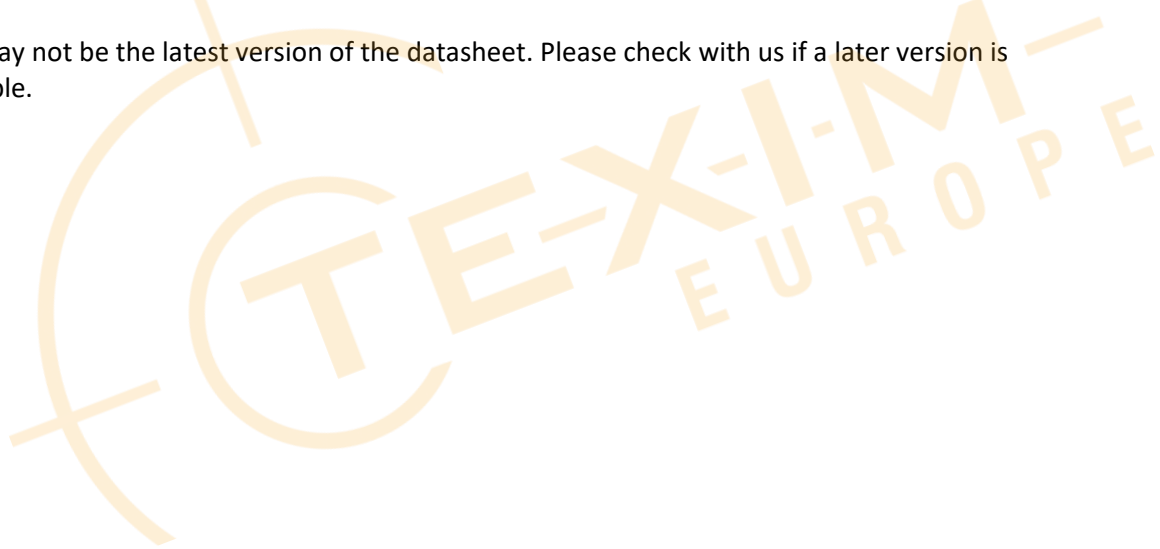
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Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

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Please contact us if you have any questions about the contents of the datasheet.

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