Tailorpixels

A Professional Manufacturer of Display

Manufacturer Certificated

9001 CERT. No.: 282Q19070712006

14001 CERT. No.: 282E19070712007

Product Specification

Model: TOH022XRT-01C

2.2″ AMOLED Display Module (480*480)

This module uses RoHS material

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Records of Revision 修改记录

Rev 版本号	Date 修改日期	Description 内容	Page 页	Remarks 注释
V0	2026/11/01	首　次	18	

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1 General Description 规格简介

2.2 inch 480x480 is a color active matrix AMOLED module .

This module has a 2.2 inch diagonally measured active area with 480x480 resolutions (480 horizontal by 480 vertical pixel arrays). Each pixel is divided into RED, GREEN, BLUE dots and this module can display 16.7M colors.

2.2 英寸 480x480 是一个彩色有源矩阵 AMOLED 模块。该模块有一个 2.2 英寸的对角线测量的活动区域，分辨率为 480x480（480 水平和 480 垂直像素数组）。每个像素被分为红色、绿色、蓝点，该模块可以显示 16.7M 的颜色。

2 Module Parameter 模组参数

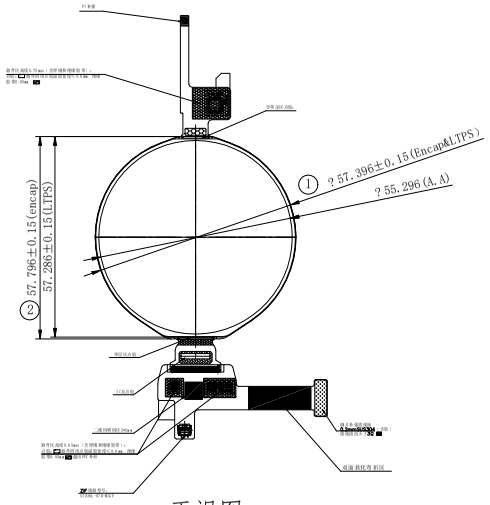
Features	Details	Unit
Display Size(Diagonal) 显示尺寸(对角线)	2.2	inch
显示屏类型	AMOLED	-
Display Mode 显示模式	Transmissive OLED	-
Resolution 分辨率	480RGB x 480	-
Active Area 显示区	Φ55. 296	mm
Module Outline 模组外形	57.396(H) ×57.796(V)×0.748(T)	mm
Display Colors 显示颜色	16.7M	-
Interface 接口	MIPI/QSPI/SPI	-
Driver IC 驱动 IC	ICNA3312	-
TP Viewing Area TP 视窗	–	mm
TP Outline(assembly) TP 外形	-	mm
TP IC	FT3269	
Luminance on surface 亮度	700	cd/m²
View Direction 视角方向	All	Best image
Contrast ratio 对比度	100000:1	
Color gamut 色域	105%	
PPI 图像点密集度	220	-
Window effect 视窗效果	-	-
Cover plate surface effect 盖板表面效果	-	-
Operating Temperature 工作温度	-30～70	ºC
Storage Temperature 储存温度	-40～85	ºC
Weight 重量	TBD	g

Note 1: Excluding hooks, posts , FPC/FPC tail etc.

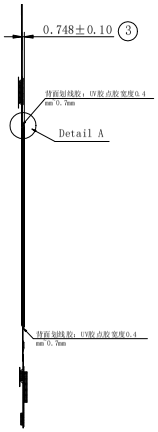
3 Mechanical Drawings 结构图

REV.	DESCRIPTION	DATA	NAME

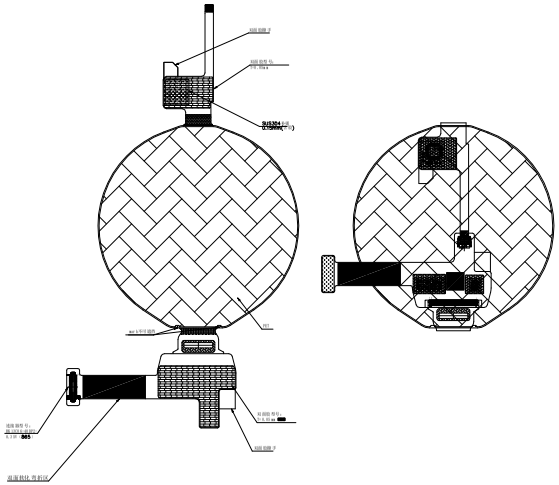
正视图

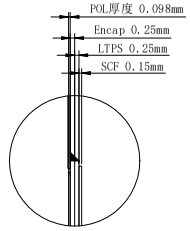


侧视图



背视图





Detail A 5:1

正视图　　侧视图　　背视图

Main-FPC PIN ASSIGNMENT

G1\G2\G5=GND			
1	GND	2	GND
3	ELVDD	4	ELVSS
5	ELVDD	6	ELVSS
7	GND	8	GND
9	MTP	10	GND
11	VDDIO	12	MIPI_DON
13	VCI	14	MIPI_DOP
15	GND	16	GND
17	IM0	18	MIPI_CLKN
19	IM1	20	MIPI_CLKP
21	D[1]	22	GND
23	D[0]	24	GND
25	SPI_CS	26	TSP_RESET
27	SPI_SCL	28	TSP_INT
29	SPI_DCX	30	TSP_SCL
31	SPI_MOSI	32	TSP_SDA
33	SPI_MISO	34	TSP_AVDD
35	RESX	36	TSP_VDDIO
37	TE	38	GND
39	SWIRE	40	GND
G3\G4\G6=GND			

NOTES:

1. 显示模组:2.2MOLED,不含盖板
2. Driver IC:ICNA3312;TPIC:FT3269
3. 主连接器型号:BK13C06-40DP2-0.35V（865）;ZIF:ST036L-07R-MIGF

"*"为重点管控尺寸，():为推荐尺寸; ①~ Ⓝ

QC出货检验尺寸

5. 未注公差为±0.2mm;
6. 产品符合RoHS2.0.

出货方式弯折出货

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DRAWN BY: 绘　图		PRODUCT NO: 产品编号	TOH022XRT-01C	SCALE: 比　例	1:1
CHECKED BY: 审　核		CLIENT NO: 客户编号		UNITS: 单　位	MM
DATA: 日　期		VERSION NUMBER: 版本号	V0	VIEW: 投影方式	

Tailorpixels

TAILOR P'IXELS TECHNOLOGY CO., LTD.

4 Module Interface 模组接口定义

NO	SYMBOL	FUNCTION
1	GND	Power Ground
2	GND	Power Ground
3	ELVDD	Positive input voltage （3.5V）
4	ELVSS	Negative input voltage (-3.2V)
5	ELVDD	Positive input voltage(3.5V)
6	ELVSS	Negative input voltage (-3.2V)
7	GND	Power Ground
8	GND	Power Ground
9	MTP	NC
10	GND	Power Ground
11	IOVDD	Power Supply for logic, I O V D D =1.65V~3.3V.
12	MIPI-D0N	MIPI-DSI Data differential signal input pins.
13	VCI	Power Supply for analog,VCI=2.7V~3.6V
14	MIPI-D0P	MIPI-DSI Data differential signal input pins.
15	GND	Power Ground
16	GND	Power Ground
17	IM0	Interface type selection
18	MIPI-CLKN	CLKN
19	IM1	IM[1:0] / Display Data / Command 00 / MIPI / 3-wire SPI / MIPI / 3-wire SPI 01 / MIPI / 4-wire SPI / MIPI / 4-wire SPI 10 / MIPI / QUAD-SPI / MIPI / QUAD-SPI 11 / MCU 8-bit / MCU 8-bit
20	MIPI-CLKP	CLKP
21	D(1)	serial data input 3
22	GND	Power Ground
23	D(0)	serial data input 2
24	GND	Power Ground
25	SPI-CS	chip select
26	TSP_RST	Touch panel reset
27	SPI-SCL	A synchronous clock signal in SPI I/F.
28	TSP_INT	Touch panel interrupt output
29	SPI-DCX	Display data/command selection in 4-wire SPI
30	TSP_SCL	Touch panel I2C clock
31	SPI-MOSI	serial data input 1
32	TSP_SDA	Touch panel I2C data
33	SPI-MISO	serial data input /output 0 serial data
34	TSP_AVDD	Touch panel I2C power for analog

35	RESET	This signal will reset the device and must be applied to properly initialize the chip. Signal is active low.
36	TSP_VDDIO	Touch panel I2C power for logic
37	TE	Tearing effect output pin to synchronize MCU to frame writing, activated by S/W command
38	GND	Power Ground
39	SWIRE	Swire protocol setting pin of Power IC,
40	GND	Power Ground

5 Application Circuit 应用电路

TBD

6 Absolute Maximum Ratings 绝对最大额定值

VSS=0V, Ta=25ºC

Note 1: 90%RH max, If Ta is below 50ºC; 60%RH max, If Ta is over 60ºC.

Item 项目		Symbol	Min.最小	Max.最大	Unit 单位
Supply Voltage 电源电压	Power supply 电力供应	VCI	-0.3	+5.5	V
	IO	IOVDD	-0.3	+5.5	V
Input Voltage 输入电压		Vi	-0.3	IOVDD+0.3	V
Storage temperature 储存温度		T_{stg}	-40	+85	ºC
Operating temperature 工作温度		T_{op}	-30	+70	ºC
Storage humidity 存储湿度		H_{stg}	10	Note 1	%RH
Operating humidity 操作湿度		H_{op}	10	Note 1	%RH

7 Electrical Specification 电性规格

DC Characteristics 直流特性

Item 项目		Symbol	Min.最小	Typ.中间	Max.最大	Unit 单位
Supply Voltage 电源电压	Powersupply 电力供应	VCI	2.7	3.3V	3.6	V
		ELVDD	-	3.5V	-	V
		ELVSSS	-	-3.2V	-	V
	IO	IOVDD	1.65	1.8V	3.3	V
Logic Low input voltage 输入电压低		V_{IL}	-0.3IOVDD	-	0.3IOVDD	V
Logic High input voltage 输入电压高		V_{IH}	0.7IOVDD	-	IOVDD	V
Logic Low output voltage 输出电压低		V_{OL}	-	-	0.2IOVDD	V
Logic High output voltage 输出电压高		V_{OH}	0.8IOVDD	-	-	V
Current Consumption 电流消耗	Normal display 正常的显示	Ivdd	-	-	-	mA
	Standby mode 待机模式	Ivdd	-	-	-	uA
Frame Frequency 帧频		f_{FR}	-	60	-	Hz

8 Initialization Code 初始化代码

TBD

9 Optical Specifications 光学规格

9.1 Optical Specifications 光学规格

Ta=25ºC, VDD=2.8V

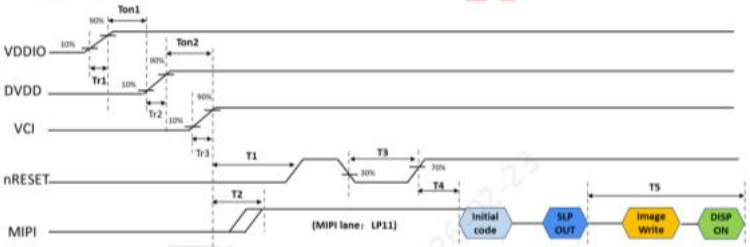
	Item 项目		Symbol 标志	Condition 条件	Specification 规范			Unit 单位
					Min.最小	Typ. 中间	Max. 最大	
Backlight On (Transmissive Mode)	Luminance on surface(I_f =20mA) 表面亮度		*Lv*	Normally viewing angle $\theta_X=\theta_Y$ =0º	-	700	-	cd/m²
	Contrast ratio 对比度		*CR*		100000		-	-
	Response time 响应时间		*TR +TF*	25℃	-	3	-	ms
	Chromaticity Transmissive 色度	Red 红	*XR*	-	-	-	-	-
			YR		-	-	-	-
		Green 绿	*XG*		-	-	-	-
			YG		-	-	-	-
		Blue 蓝	*XB*		-	-	-	-
			YB		-	-	-	-
		White 白	*XW*		0.275	0.295	0.315	-
			YW		0.290	0.310	0.330	-
	Viewing Angle 视角	Horizontal	θX+	CR≥200	80	-	-	Deg.
			θX-		80	-	-	
		Vertical	θY+		80	-	-	
			θY-		80	-	-	
	NTSC Ratio(Gamut)		-	-	100	105	-	%

9.2 The power on/off sequence is illustrated below 电源启动/关闭顺序

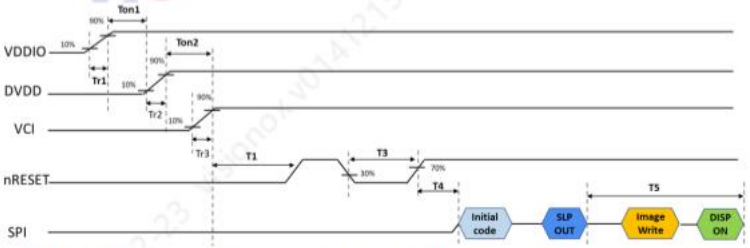
Symbol	Description	Value			Unit	Remark
		Min.	Typ.	Max.		
Ton1	VDDI on to DVDD on delay	>0	-	-	us	
Ton2	DVDD on to VCI on power delay time	>0	-	-	ms	
T1	VCI on to valid to nRESET high	10	-	-	ms	
T2	VCI to MIPI bus ready delay	0	-	T1	ms	
T3	nRESET low period	50	-	-	us	
T4	nRESET high to OTP code re-load ready	10	-	-	ms	
T5	Sleep-out command received to Display on command received.	50	-	-	ms	
Tr1	VDDI power rising time	0.3	-	2	ms	
Tr2	DVDD power rising time	0.3	-	2	ms	
Tr3	VCI power rising time	0.3	-	2	ms	

The Power on sequence is shown as below.

MIPI CASE:



SPI CASE:



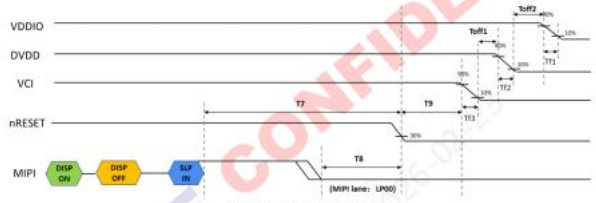
Note 1: *Unless otherwise specified, timings herein show cross point at 50% of signal/power level.*

Note 2: *This power-on sequence is based on adding Schottky diode on VGL pin to ground.*

Symbol	Description	Value			Unit	Remark
		Min.	Typ.	Max.		
Toff1	VCI off to DVDD off delay	>0	-	-	us	
Toff2	DVDD off to VDDI off delay	>0	-	-	us	
T7	Sleep-in command received to valid to nRESET low	100	-	-	ms	
T8	MIPI ultra low power mode to valid to nRESET low	0	-	-	us	
T9	nRESET low to VCI off delay	0	-	-	us	
Tf1	VDDI power falling time	0.1	-	5	ms	
Tf2	DVDD power falling time	0.1	-	5	ms	
Tf3	VCI power falling time	0.1	-	5	ms	

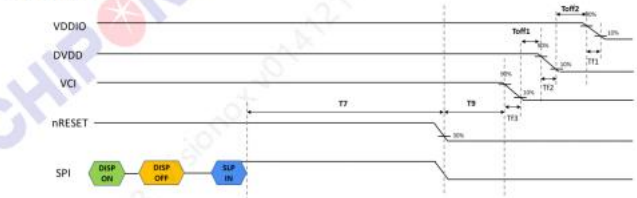
The power off sequence is shown as below:

MIPI CASE:



MIPI Power OFF Sequence

SPI CASE:



SPI Power OFF Sequence

Note 1: *Unless otherwise specified, timings herein show cross point at 50% of signal/power level.*

Note 2: *Keep VGH is equal to or larger than VCI during power off sequence.*

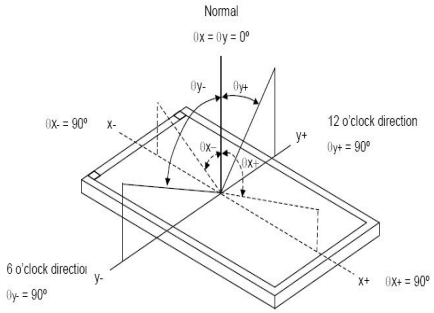
9.3 Definition of Contrast Ratio 对比度的定义

Contrast is measured perpendicular to display surface in reflective and transmissive mode. The measurement condition is:

Measuring Equipment 测量设备	**BM-7 or EQUI**
Measuring Point Diameter 测点直径	3mm//1mm
Measuring Point Location 测点位置	Active Area centre point
Test pattern 测试模式	A: All Pixels white
	B: All Pixel black
Contrast setting	Maximum

Definitions: CR (Contrast) = Luminance of White Pixel / Luminance of Black Pixel

9.4 Definition of Viewing Angles 视角的定义



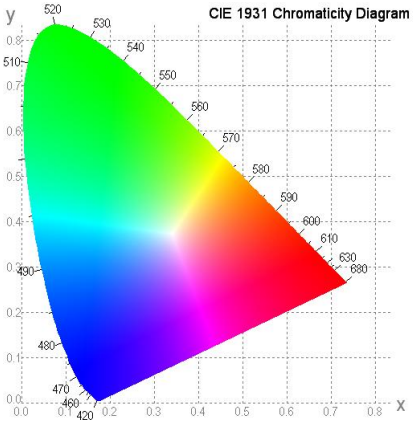
Measuring machine: LCD-5100 or EQUI

9.5 Definition of Color Appearance 色域的定义

R,G,B and W are defined by (x, y) on the IE chromaticity diagram

NTSC=area of RGB triangle/area of NTSC triangleX100%

Measuring picture: Red, Green, Blue and White (Measuring machine: BM-7)



9.6 Definition of Surface Luminance, Uniformity and Transmittance

表面亮度、均匀性和透光率的定义

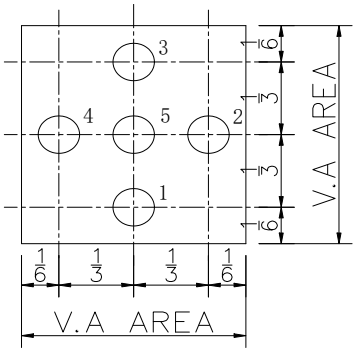
Using the transmissive mode measurement approach, measure the white screen luminance of the display panel and backlight.

9.6.1 Surface Luminance: LV = average (LP1:LP5)

9.6.2 Uniformity = Minimal (LP1:LP5) / Maximal (LP1:LP5) * 100%

9.6.3 Transmittance = LV on LCD / LV on Backlight * 100%

Note :Measuring machine:BM-7



10 Quality Assurance 质量标准

10.1 Purpose 目的

This standard for Quality Assurance assures the quality of LCD module products supplied to customer by Tailorpixels .

10.2 Agreement Items 协议项目

Tailorpixels and customer shall negotiate if the following situation occurs:

10.2.1 Discrepancies between Tailorpixels ’s QA standards and customer’s QA standards.

10.2.2 Additional requirement to be added in product specification.

10.2.3 Any other special problem.

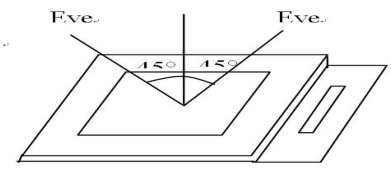
10.3 Standard of the Product Visual Inspection 产品外观检验标准

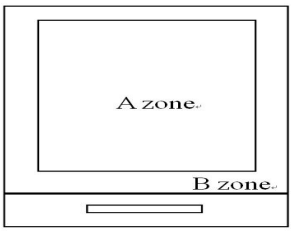
10.3.1 Appearance inspection:

10.3.1.1 The inspection must be under illumination about 1000 – 1500 lx, and the distance of view must be at 30cm ± 2cm.

10.3.1.2 The viewing angle should be 45° from the vertical line without reflection light or follows customer's viewing angle specifications.

10.3.1.3 Definition of area: A Zone: Active Area, B Zone: Viewing Area.



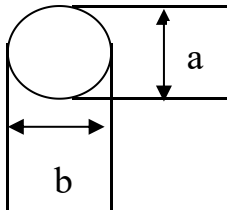


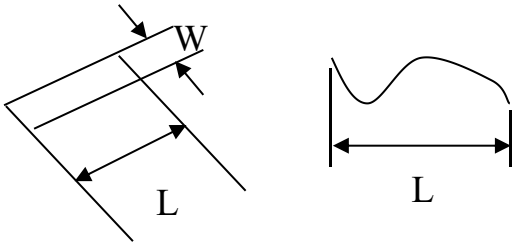
10.3.2 Basic principle:A set of sample to indicate the limit of acceptable quality level must be discussed by both Tailorpixels and customer when there is any dispute happened.

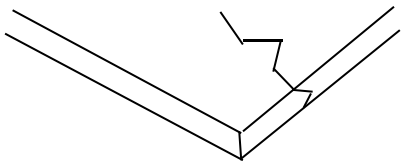
10.4 Inspection Specification 检验标准

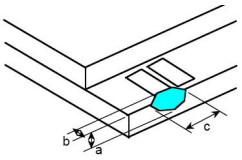
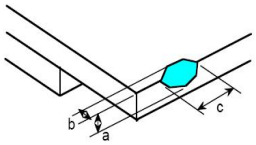
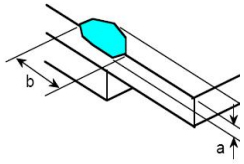
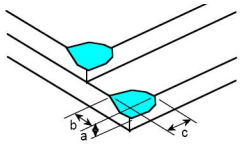
Sampling plan according to GB/T2828.1-2012/ISO 2859-1：1999 and ANSI/ASQC Z1.4-1993,normal level 2 and based on:

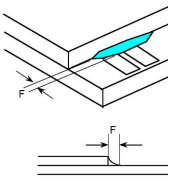
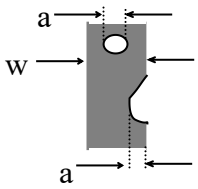
Major defect: AQL 0.4
Minor defect: AQL 1.0

<table>
<tr><th>No.</th><th>Item 项目</th><th>Criteria (Unit: mm) 标准</th></tr>
<tr><td>01</td><td>Black / White spot
Foreign material
(Round type)
Pinholes Stain
Particles inside cell.
(Minor defect) 黑/白斑/异物
(圆类型)细胞内的针孔染色颗粒。(小瑕疵)</td><td>

<table>
<tr><th>Size \ Area</th><th>Acc. Qty</th></tr>
<tr><td>φ≤0.10</td><td>Ignore</td></tr>
<tr><td>0.10<φ≤0.2</td><td>2</td></tr>
<tr><td>0.2<φ</td><td>0</td></tr>
<tr><td>Total</td><td>N≦3
NO include
φ≤ 0.10</td></tr>
</table>
φ= (a + b) /2
Distance between 2 defects should more than10mm apart.</td></tr>
<tr><td>02</td><td>Black and White line
Scratch
Foreign material
(Line type)
(Minor defect) 黑白线刮伤异物(类型)行(小瑕疵)</td><td>

<table>
<tr><th>Length</th><th>Width</th><th>Acc. Qty</th></tr>
<tr><td>/</td><td>W ≦ 0.03</td><td>Ignore</td></tr>
<tr><td>L ≦ 3</td><td>0.05 ＜ W ≦ 0.08</td><td>2</td></tr>
<tr><td>/</td><td>0.08 ＜ W</td><td>0</td></tr>
<tr><td colspan="2">Total</td><td>N≦2</td></tr>
</table>
Distance between 2 defects should more than 10mm apart.
Scratches not viewable through the back of the display are acceptable.</td></tr>
<tr><td>03</td><td>Glass Crack
(Minor defect) 玻璃裂纹(小瑕疵)</td><td>
LCD with extensible crack line is unacceptable(When press the cracked LCD area, the line will expand, we define it is extensible crack line)</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item 项目</th><th>Criteria (Unit: mm) 标准</th></tr>
<tr><td>04</td><td>Glass Chipping Pad Area: (Minor defect) 玻璃碎片面积:(轻微缺陷)
</td><td><table><tr><td>Length and Width</td><td>Acc. Qty</td></tr><tr><td>c ＜ 5.0, b< 0.4</td><td>Ignore</td></tr></table></td></tr>
<tr><td>05</td><td>Glass Chipping Rear of PadArea:(Minordefect) 玻璃切屑垫区后方:(小瑕疵)
</td><td><table><tr><td>Length and Width</td><td>Acc. Qty</td></tr><tr><td>c > 3.0, b< 1.0</td><td>1</td></tr><tr><td>c< 3.0, b< 1.0</td><td>2</td></tr><tr><td>c< 3.0, b< 0.5</td><td>4</td></tr><tr><td colspan="2">a<Glass Thickness</td></tr></table></td></tr>
<tr><td>06</td><td>Glass Chipping Except Pad Area: (Minor defect) 除垫区外的玻璃切屑:(小瑕疵)
</td><td><table><tr><td>Length and Width</td><td>Acc. Qty</td></tr><tr><td>c ≤0.6, b< 5.0</td><td>Ignore</td></tr><tr><td colspan="2">aGlass Thickness</td></tr></table></td></tr>
<tr><td>07</td><td>Glass Corner Chipping: (Minor defect) 玻璃切角:(小瑕疵)
</td><td><table><tr><td>Length and Width</td><td>Acc. Qty</td></tr><tr><td>c < 2.0, b< 1.5</td><td>Ignore</td></tr><tr><td>c < 1.5, b< 2</td><td>Ignore</td></tr><tr><td colspan="2">a<Glass Thickness</td></tr></table></td></tr>
</table>

<table>
<tr><th>No.</th><th>Item 项目</th><th>Criteria (Unit: mm) 标准</th></tr>
<tr><td>08</td><td>Glass Burr:
(Minor defect) 玻璃磨:(小瑕疵)
</td><td>Glass burr don’t affect assemble and module dimension.
<table><tr><td>Length</td><td>Acc. Qty</td></tr><tr><td>F < 0.5</td><td>Ignore</td></tr></table></td></tr>
<tr><td>09</td><td>FPC Defect:
(Minor defect) FPC 缺陷:(小瑕疵)
</td><td>9.1 Dent, pinhole width a<w/3.
(w: circuitry width.)
9.2 Open circuit is unacceptable.
9.3 No oxidation, contamination and distortion.</td></tr>
<tr><td>10</td><td>Screen deformation 屏幕上的变形
</td><td>Test for insertion of plug gauge at highest warping point：
(3.1-6.0inches)
H≦0.3MM
The client has special requirements,according to drawing</td></tr>
<tr><td>11</td><td>Bubble on Polarizer
(Minor defect) 偏光片上的气泡(小瑕疵)</td><td><table><tr><td>Diameter</td><td>Acc. Qty</td></tr><tr><td>φ≤0.15</td><td>Ignore</td></tr><tr><td>0.15 <φ≤0.25</td><td>2</td></tr><tr><td>0.25 <φ≤0.3</td><td>1</td></tr><tr><td>0.3 < φ</td><td>0</td></tr></table></td></tr>
<tr><td>12</td><td>Dent on Polarizer
(Minor defect) 偏光片上的凹痕(小瑕疵)</td><td><table><tr><td>Diameter</td><td>Acc. Qty</td></tr><tr><td>φ≤0.15</td><td>Ignore</td></tr><tr><td>0.15 <φ≤0.25</td><td>2</td></tr><tr><td>0.2 5<φ≤0.30</td><td>1</td></tr><tr><td>0.3< φ</td><td>0</td></tr></table></td></tr>
<tr><td>13</td><td>Bezel 边框</td><td>13.1 No rust, distortion on the Bezel.</td></tr>
</table>

No.	Item 项目	Criteria (Unit: mm) 标准
14	Touch Panel 触控面板	D: Diameter W: width L: length 14.1 Spot: D≤0.20 is acceptable 0.20<D≤0.3, acceptable QTY, 3 D>0.3 is unacceptable 14.2 Dent（dot): D≤0.20 is acceptable 0.20<D≤0.3, acceptable QTY, 3 D>0.30 is unacceptable 2dots are acceptable and the distance between defects should more than 10 mm. Dent（line） According to the limit sample 14.3 Scratch: W≤0.03, L≤10 is acceptable, 0.03<W≤0.10, L≤10 ,acceptable QTY, 3 W>0.10 is unacceptable. Distance between 2 defects should more than 10 mm.
15	PCB	15.1 No distortion or contamination on PCB terminals. 15.2 All components on PCB must same as documented on the BOM/component layout. 15.3 Follow IPC-A-600F.
16	Soldering 焊接	Follow IPC-A-610C standard
17	Electrical Defect (Major defect) 电气缺陷(主要缺陷)	The below defects must be rejected. 17.1 Missing vertical / horizontal segment, 17.2 Abnormal Display. 17.3 No function or no display. 17.4 Current exceeds product specifications. 17.5 LCD viewing angle defect. 17.6 No Backlight. 17.7 Dark Backlight. 17.8 Touch Panel no function. 17.9 Dark Dot –one Allowed. 17.10 Bright Dot – one Allowed. Remark: 1. A pixel defect is acceptable if one color is none functional and causes a bright dot. The display may have one case where one color is out and cause a dark dot. 2. Bright dot caused by scratch and foreign object accords to item1.
18	Light leak 漏光	Yellow light OK; White light,According to the limit sample

Remark: Visual and cosmetic defects are rejectable only if these fall within the LCD viewing area.

10.5 Classification of Defects 缺陷的分类

Visual defects (Except no / wrong label) are treated as minor defect and electrical defect is major.

10.6 Identification/marking criteria 识别/评分标准

Any unit with illegible / wrong /double or no marking/ label shall be rejected.

10.7 Packing 包装

10.7.1 There should be no damage of the outside carton box, each packaging box should has label in the correct location per packing drawing requirement.

10.7.2 All direct package materials shall offer ESD protection.

11 Reliability Specification 可靠性规范

Item 项目	Condition 条件	Cycle Time 周期时间	Quantity 数量	Remark 备注
Constant Temp. and Constant Humidity Operation Test 恒温恒湿运行试验	+60 ºC,90 %RH	96hrs	--	*1
High Temp. Operation Test 高温操作试验	+70ºC	96hrs	--	
Low Temp. Operation Test 低温操作试验	-30ºC	96hrs	--	
Thermal Shock Test 热冲击试验 (Non-operation)	-30ºC (30min)~ +70ºC (30min)	10cycles	--	
ESD Test(end product) ESD 测试 (最终产品)	150pF, 330Ω, ±2KV,Contact 150pF, 330Ω, ±6KV, Air	10times	--	*2, *3
Vibration Test(for packaging) 振动测试(包装)	Frequency: 10Hz to 55Hz to10Hz,Swing:1.5mm,time：X,Y,Z each 2H.	6hrs	One inner carton	*4

Note 1. For humidity test, DI water should be used.

Inspection Standard: Inspect after 1-2hrs storage at room temperature, the sample shall be free from the following defects:

- Air bubble in the LCD
- Seal Leakage
- Non-display
- Missing Segment
- Glass Crack
- IDD is greater than twice initial value.
- Others as per QA Inspection Criteria

Note 2. No defect is allowed after testing

The End Product ESD value is only indicative and depends on customer ESD

protection design for the whole system.

Note 3. ESD should be applied to LCD glass panel, not other areas (such as on IC and so on) IDD should be within twice initial value.
In case of malfunction defect caused by ESD damage, if it would be recovered to normal state after resetting, it would be judged as a good part.

Note 4. Only upon request.

12 Precautions and Warranty 注意事项和保证

12.1 Safety 安全

12.1.1 The liquid crystal in the LCD is poisonous. Do not put it in your mouth. If the liquid crystal touches your skin or clothes, wash it off immediately using soap and water.

12.1.2 Since the liquid crystal cells are made of glass, do not apply strong impact on them. Handle with care.

12.2 Handling 处理

12.2.1 Reverse and use within ratings in order to keep performance and prevent damage.

12.2.2 Do not wipe the polarizer with dry cloth, as it might cause scratch. If the surface of the LCD needs to be cleaned, wipe it swiftly with cotton or other soft cloth soaked with petroleum IPA, do not use other chemicals.

12.3 Operation 操作

12.3.1 Do not drive LCD with DC voltage

12.3.2 Response time will increase below lower temperature

12.3.3 Display may change color with different temperature

12.3.4 Mechanical disturbance during operation, such as pressing on the display area, may cause the segments to appear “fractured”.

12.4 Static Electricity 静电

12.4.1 CMOS LSIs are equipped in this unit, so care must be taken to avoid the electro-static charge, by ground human body, etc.

12.4.2 The normal static prevention measures should be observed for work clothes and benches.

12.4.3 The module should be kept into anti-static bags or other containers resistant to static for storage.

12.5 Limited Warranty 有限质量保证

12.5.1 Unless otherwise agreed between Tailorpixels and customer, Tailorpixels will replace or repair any of its LCD and LCM which Tailorpixels found to be defective electrically and visually when inspected in accordance with Tailorpixels Quality Standards, for a period of one year from date of shipment.

12.5.2 The warranty liability of Tailorpixels is limited to repair and/or replacement. Tailorpixels will not be responsible for any consequential loss.

12.5.3 If possible, we suggest you use up all modules in six months. If the module storage time over twelve months, we suggest that recheck it before the module be used.

13 Packaging 包装

TBD

14 Prior Consult Matter 免责声明

1. For Tailorpixels standard products, we keep the right to change material, process for improving the product property without prior notice to our customer.

2. For OEM products, if any changes are needed which may affect the product property, we will consult with our customer in advance.

3. If you have special requirement about reliability condition, please let us know before you start the test on our samples.

Reference 参考

Item 项目	Description 描述	Revision 修订
ICNA3312	IC Data sheet	V0.04
Panel 2.2 寸 480X480	LCM assembly drawing	V0