

广东高展光电股份有限公司

GUANGDONG SUPERVIEW OPTOELECTRONICS CO.,LTD.

样品承认书

APPROVAL SHEET

PRODUCT MODEL	G02804AZ01A2(GD3408B)		
REMARKS	TFT MODULE, 240(RGB) * 320 PIXELS		
APPROVED SIGNATURE BY SUPERVIEW	PREPARED BY	CHECKED BY	APPROVED BY

APPROVED SIGNATURE BY CUSTOMER:

PROJECT	QUALITY	APPROVED

[illegible]

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1. GENERAL SPECIFICATION

1.1 Description

The G02804AZ01A2(GD3408B) is a color active matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD) that uses amorphous silicon(a-Si) TFT as a switching device, This model is composed of a single 2.8 inches transmissive type main TFT-LCD panel. The resolution of the panel is 240RGBx340 pixels and can display up to 262K color.

1.2 Feature

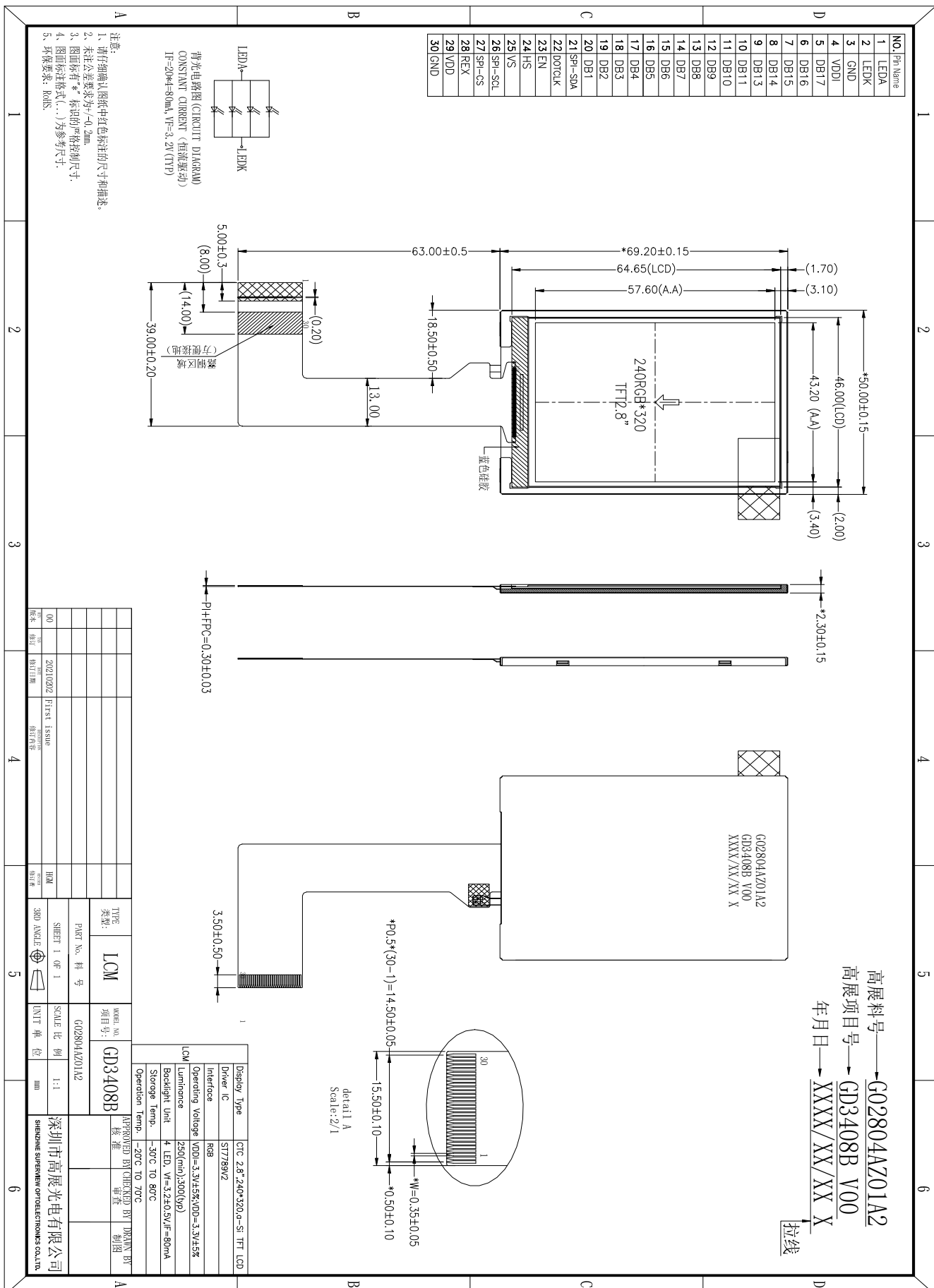
- TN type for main TFT-LCD panel
- Structure COG+FPC+BL
- Full, Normal (Still), Partial, Sleep mode are available

1.3 General Specification

No.	Item	Specification	Unit	Remark
1	LCD Size	2.8	inch	-
2	Panel Type	a-Si TFT active matrix	-	-
3	Resolution	240x (RGB) x320	pixel	-
4	Display Mode	Normally White, Transmissive	-	-
5	Display Number of Colors	262K	-	-
6	Viewing Direction	12 o'clock	-	Note
7	Contrast Ratio	500(TYP.)	-	-
8	Luminance	250(min);300(typ)	cd/m2	-
9	Module Size	50(W) x69.2(L) x 2.3(T)	mm	Note
10	Active Area	43.2(W) x 57.6(L)	mm	Note
11	Pixel Pitch	0.18(W) x 0.18 (L)	mm	-
12	Driver IC	ST7789V2	-	-
13	Light Source	4LEDs White	-	-
14	Interface	RGB	-	-
15	Operating Temperature	-20~70	°C	-
16	Storage Temperature	-30~80	°C	-

Note: Please refer to the mechanical drawing.

2. MECHANICAL DRAWING

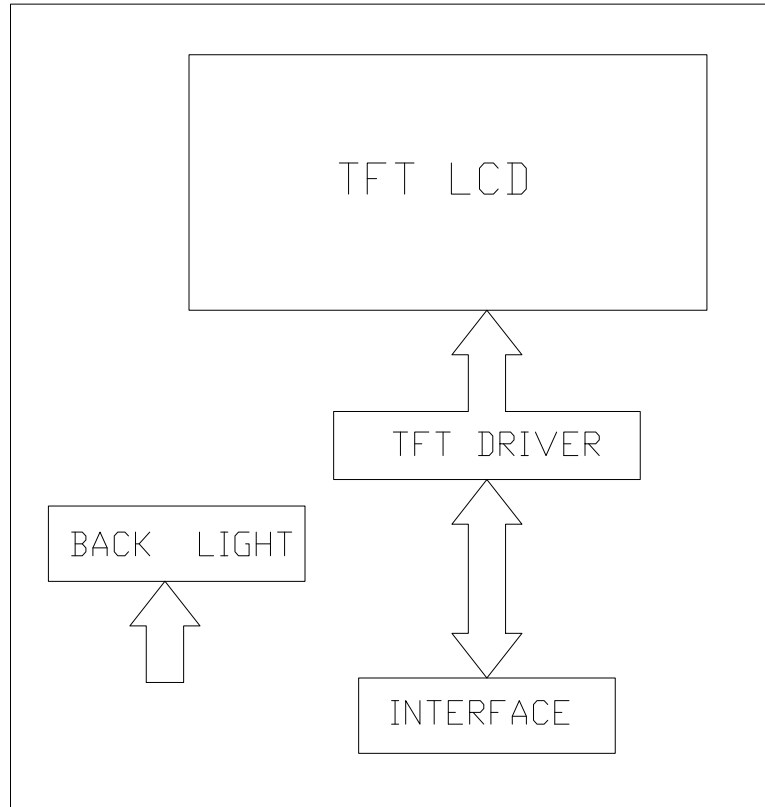


3. INTERFACE ASSIGNMENT

1	LEDA	Anode power supply for backlight (LED+).
2	LEDK	Cathode power supply for backlight (LED-).
3	GND	Ground
4	VDDI	A supply voltage to logic (I/O) circuit
5	DB17	Data bus
6	DB16	Data bus
7	DB15	Data bus
8	DB14	Data bus
9	DB13	Data bus
10	DB11	Data bus
11	DB10	Data bus
12	DB9	Data bus
13	DB8	Data bus
14	DB7	Data bus
15	DB6	Data bus
16	DB5	Data bus
17	DB4	Data bus
18	DB3	Data bus
19	DB2	Data bus
20	DB1	Data bus
21	SPI-SDA	Serial data input pin
22	DOTCLK	Dot clock signal for RGB interface operation
23	EN	Data enable signal for RGB interface operation
24	HS	Horizontal syn for RGB interface operation
25	VS	Vertical syn for RGB interface operation
26	SPI-SCL	Serial clock pin
27	SPI-CS	Chip select signal
28	REX	Reset pin
29	VDD	Analog supply voltage
30	GND	Ground

4. ELECTRICAL SPECIFICATION

4.1. Block Diagram



4.2. Tft Absolute Maximum Ratings

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN	TYP	MAX	
Power Supply for Analog	VCC	Ta=25 °C	-0.3	-	3.3	V
Power Supply for Digital IO	IOVCC	Ta=25 °C	-0.3	-	3.3	V

Note: Permanent damage to the device may occur if maximum values are exceeded or reverse voltage is applied.

4.3. Tft Typical Operation Condition

4.3.1 TFT DC Characteristics

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN	TYP	MAX	
Power Supply for Analog	VDD	Ta=25 °C	2.5	2.8	3.3	V
Power Supply for Digital IO	IOVDD	Ta=25 °C	1.65	2.8	3.3	V
Input Signal "H" Level	V _{IH}	-	0.7IOVDD	-	IOVDD	V
Input Signal "L" Level	V _{IL}	-	0	-	0.3IOVDD	V
Output Signal "H" Level	V _{OH}	I _{OH} =-1.0mA	0.8IOVDD	-	IOVDD	V
Output Signal "L" Level	V _{OL}	I _{OL} =1.0mA	0	-	0.2IOVDD	V
Frame Frequency	FRAME	-	50	70	80	Hz

Note: To prevent IC latch up or DC operation in LCD panel, the power on/off sequence should follow the driver IC specification.

4.3.2 TFT Current Consumption

Item	Symbol	Values		Unit	Remark
		type	Max.		
MCU_8bit Interface					
Normal(Still) Mode	I _{CC1}	TBD	TBD	mA	Note1
Standby Mode	I _{CC1}	TBD	TBD	uA	Note2

Note1: Test Condition

Typ: IOVCC=VCI=2.85V

Display Pattern: All Pixel White

Frame Rate=60Hz at 2-dot Inversion

Max. current check pattern:

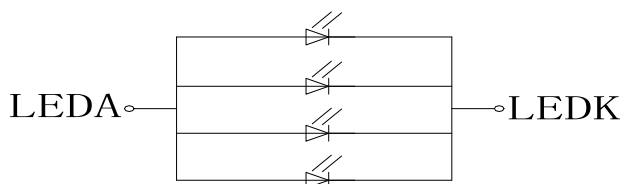


White

Note2: In the standby mode, all the internal display operations are suspended including the internal R-C oscillator.

4.4. Backlight Specification

4.4.1 Backlight Circuit



背光电路图 (CIRCUIT DIAGRAM)
CONSTANT CURRENT (恒流驱动)
IF=20*4=80mA, VF=3.2V (TYP)

4.4.2 ELECTRICAL CHARACTERISTICS

(T=25℃)

PARAMETER	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN	TYP	MAX	
FORWARD VOLTAGE	VF	IF=80mA	2.8	3.2	3.5	V

4.5.Interface Characteristics:
4.5.1 DC Characteristics

Parameter	Symbol	Condition	Specification			Unit	Related Pins
			MIN.	TYP.	MAX.		
Power & Operation Voltage							
System Voltage	VDD	Operating voltage	2.4	2.75	3.3	V	
Interface Operation Voltage	VDDI	I/O Supply Voltage	1.65	1.8	3.3	V	
Gate Driver High Voltage	VGH		12.2		14.97	V	Note 4
Gate Driver Low Voltage	VGL		-12.5		-7.16	V	
Gate Driver Supply Voltage		VGH-VGL	19.36		27.47	V	Note 5
Input / Output							
Logic-High Input Voltage	VIH		0.7VDDI		VDDI	V	Note 1
Logic-Low Input Voltage	VIL		VSS		0.3VDDI	V	Note 1
Logic-High Output Voltage	VOH	IOH = -1.0mA	0.8VDDI		VDDI	V	Note 1
Logic-Low Output Voltage	VOL	IOL = +1.0mA	VSS		0.2VDDI	V	Note 1
Logic-High Input Current	IIH	VIN = VDDI			1	uA	Note 1
Logic-Low Input Current	IIL	VIN = VSS	-1			uA	Note 1
Input Leakage Current	IIL	IOH = -1.0mA	-0.1		+0.1	uA	Note 1
VCOM Voltage							
VCOM amplitude	VCOM			VSS		V	
Source Driver							
Source Output Range	Vsout		VAN		VAP	V	
Gamma Reference Voltage(Positive)	VAP		4.45		6.4	V	Note 6
Gamma Reference Voltage(Negative)	VAN		-4.6		-2.65	V	
Source Output Settling Time	Tr	Below with 99% precision			20	us	Note 2
Output Offset Voltage	VOFFSET				35	mV	Note 3

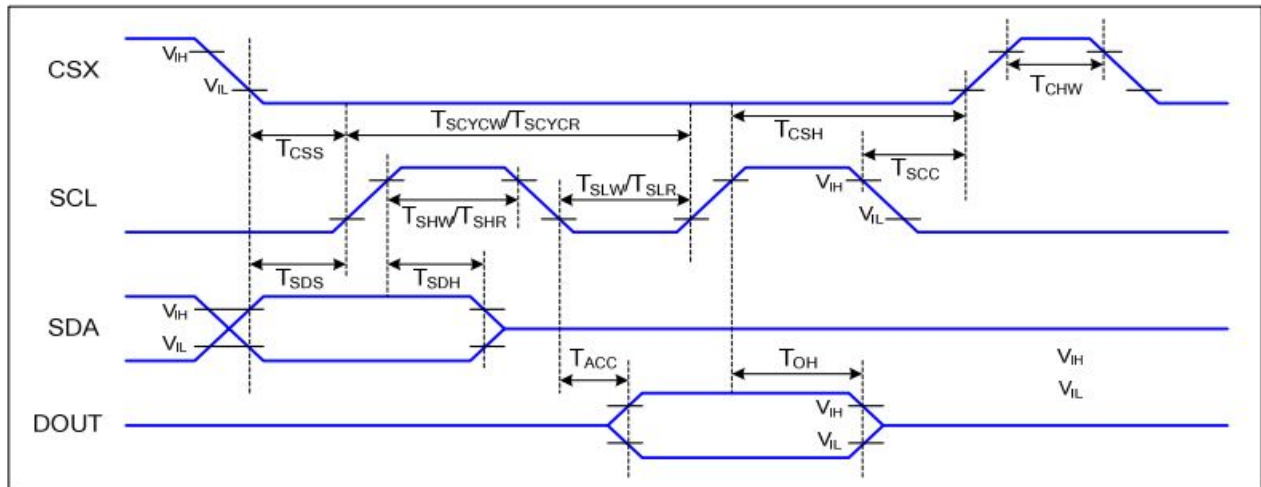
Table 2 Basic DC Characteristics

Notes:

1. TA= -30 to 70 ℃ (to +85 ℃ no damage).
2. Source channel loading= 2KΩ+12pF/channel, Gate channel loading=5KΩ+40pF/channel.
3. The Max. value is between measured point of source output and gamma setting value.
4. When evaluating the maximum and minimum of VGH, VDD=2.8V.

4.5.2 Timing Characteristics

Serial Interface Characteristics (3-line serial)

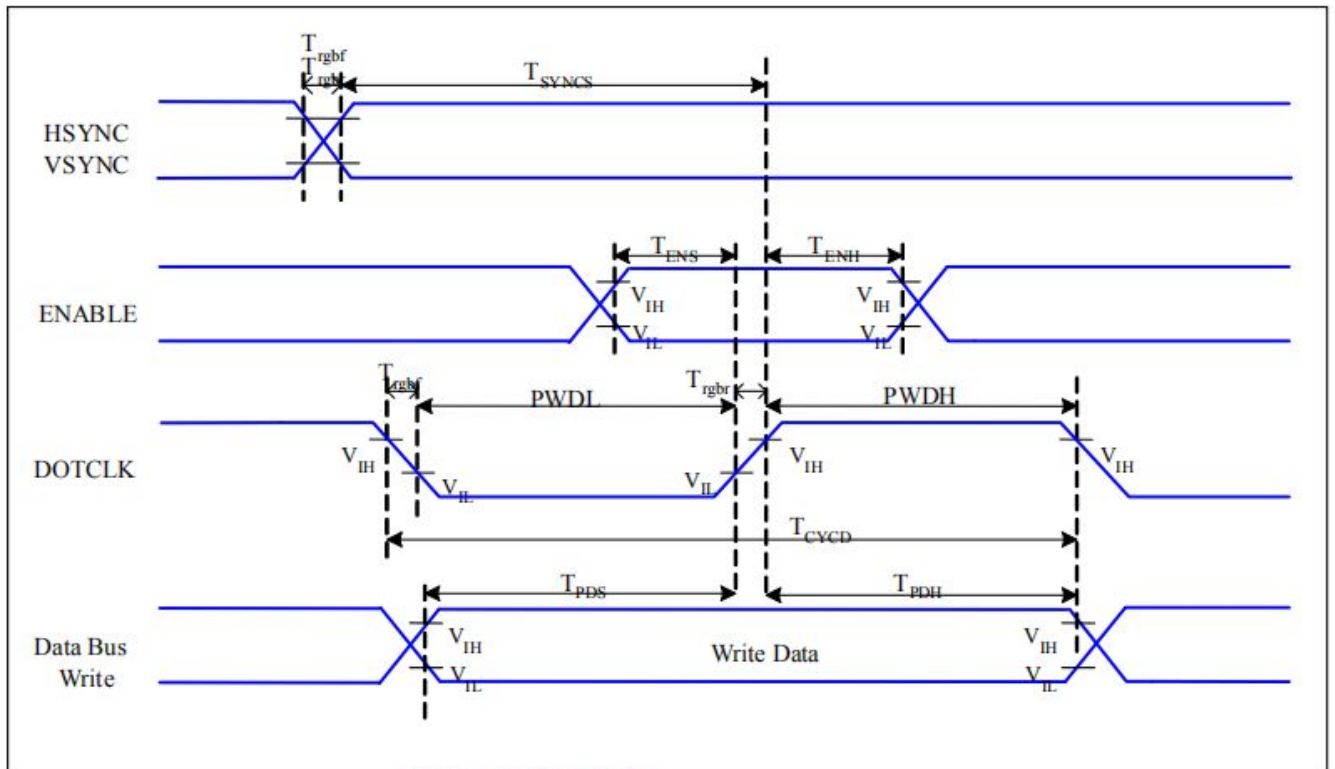


Signal	Symbol	Parameter	Min	Max	Unit	Description
CSX	T _{CSS}	Chip select setup time (write)	15		ns	
	T _{CSH}	Chip select hold time (write)	15		ns	
	T _{CSS}	Chip select setup time (read)	60		ns	
	T _{SCC}	Chip select hold time (read)	65		ns	
	T _{CHW}	Chip select "H" pulse width	40		ns	
SCL	T _{SCYCW}	Serial clock cycle (Write)	66		ns	
	T _{SHW}	SCL "H" pulse width (Write)	15		ns	
	T _{SLW}	SCL "L" pulse width (Write)	15		ns	
	T _{SCYCR}	Serial clock cycle (Read)	150		ns	
	T _{SHR}	SCL "H" pulse width (Read)	60		ns	
	T _{SLR}	SCL "L" pulse width (Read)	60		ns	
SDA (DIN)	T _{SDS}	Data setup time	10		ns	
	T _{SDH}	Data hold time	10		ns	
DOUT	T _{ACC}	Access time	10	50	ns	For maximum CL=30pF
	T _{OH}	Output disable time	15	50	ns	For minimum CL=8pF

Table 5 3-line serial Interface Characteristics

Note : The rising time and falling time (Tr, Tf) of input signal are specified at 15 ns or less. Logic high and low levels are specified as 30% and 70% of VDDI for Input signals.

RGB Interface Characteristics



Signal	Symbol	Parameter	MIN	MAX	Unit	Description
HSYNC, VSYNC	T_{SYNCS}	VSYSNCS, HSYNC Setup Time	30	-	ns	
ENABLE	T_{ENS}	Enable Setup Time	25	-	ns	
	T_{ENH}	Enable Hold Time	25	-	ns	
DOTCLK	PWDH	DOTCLK High-level Pulse Width	60	-	ns	
	PWDL	DOTCLK Low-level Pulse Width	60	-	ns	
	T_{CYCD}	DOTCLK Cycle Time	120	-	ns	
	T_{rghr}, T_{rghf}	DOTCLK Rise/Fall time	-	20	ns	
DB	T_{PDS}	PD Data Setup Time	50	-	ns	
	T_{PDH}	PD Data Hold Time	50	-	ns	

4.5.3 Power ON/OFF Sequence

IOVCC and VCI can be applied in any order.

VCI and IOVCC can be power down in any order.

During power off, if LCD is in the Sleep Out mode, VCI and IOVCC must be powered down minimum

120msec after RESX has been released.

During power off, if LCD is in the Sleep In mode, IOVCC or VCI can be powered down minimum 0msec after

RESX has been released.

CSX can be applied at any timing or can be permanently grounded. RESX has priority over CSX.

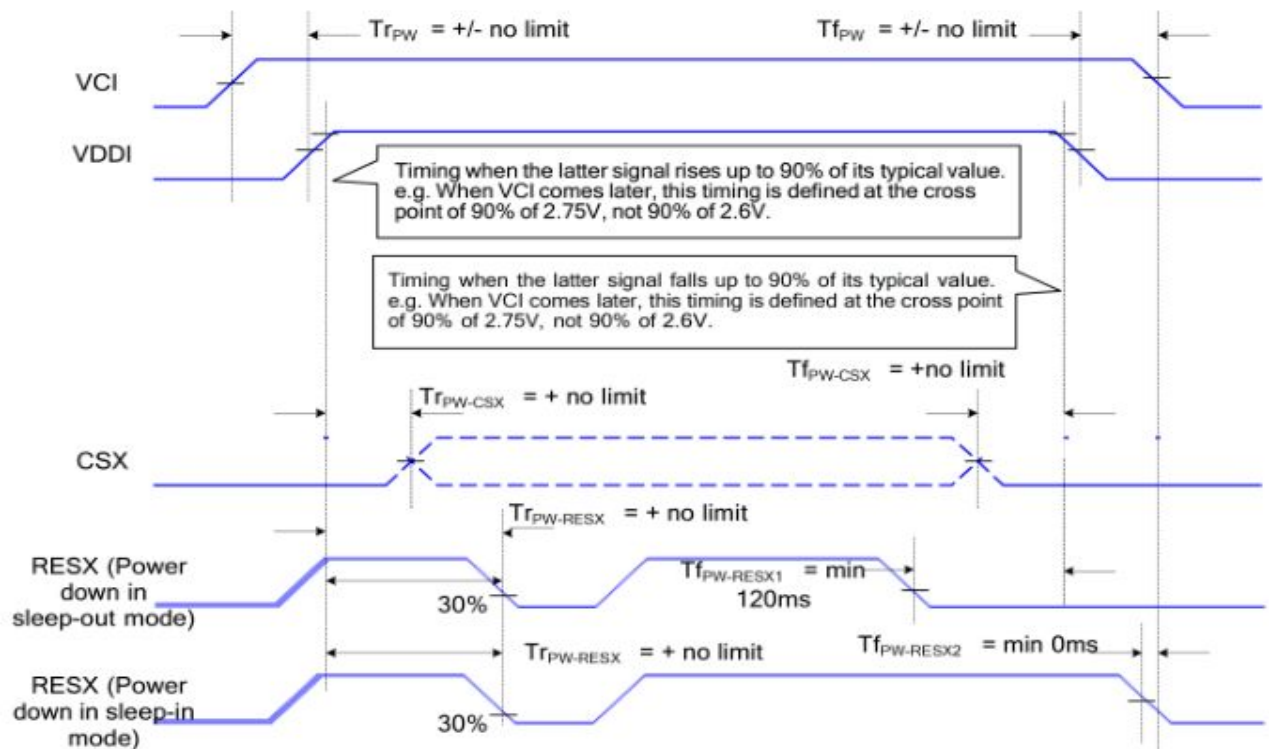
Note 1: There will be no abnormal visible effects on the display panel during the Power On/Off Sequences.

Note 2: There will be no abnormal visible effects on the display between end of Power On Sequence and before receiving Sleep Out command. Also between receiving Sleep In command and Power Off Sequence.

Note 3: If RESX line is not held stable by host during Power On Sequence as defined in the sequence below, then it will be necessary to apply a Hardware Reset (RESX) after Host Power On Sequence is complete to ensure correct operation.

Otherwise function is not guaranteed.

The power on/off sequence is illustrated below



4.6 Reset Timing:

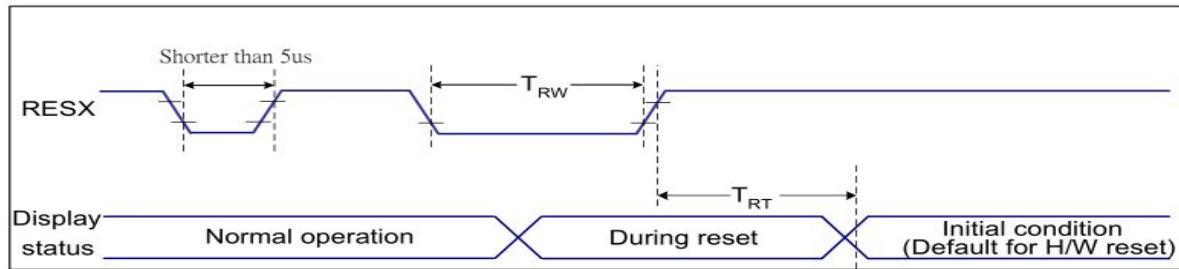


Figure 9 Reset Timing

VDDI=1.8, VDD=2.8, AGND=DGND=0V, $T_a=25^\circ\text{C}$

Related Pins	Symbol	Parameter	MIN	MAX	Unit
RESX	TRW	Reset pulse duration	10	-	us
	TRT	Reset cancel	-	5 (Note 1, 5)	ms
				120 (Note 1, 6, 7)	ms

Table 9 Reset Timing

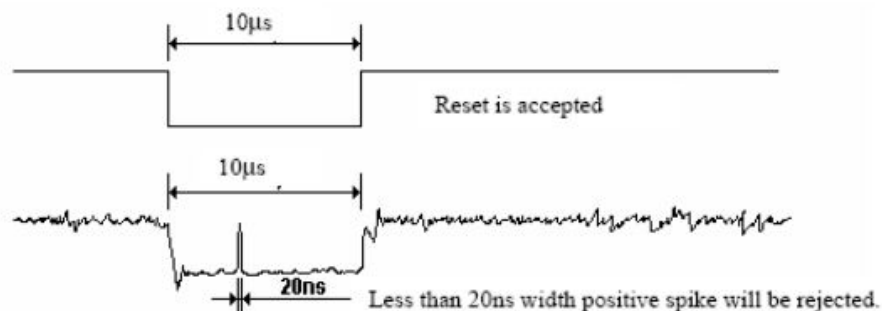
Notes:

1. The reset cancel includes also required time for loading ID bytes, VCOM setting and other settings from NVM (or similar device) to registers. This loading is done every time when there is HW reset cancel time (t_{RT}) within 5 ms after a rising edge of RESX.
2. Spike due to an electrostatic discharge on RESX line does not cause irregular system reset according to the table below:

RESX Pulse	Action
Shorter than 5us	Reset Rejected
Longer than 9us	Reset
Between 5us and 9us	Reset starts

3. During the Resetting period, the display will be blanked (The display is entering blanking sequence, which maximum time is 120 ms, when Reset Starts in Sleep Out –mode. The display remains the blank state in Sleep In –mode.) and then return to Default condition for Hardware Reset.

4. Spike Rejection also applies during a valid reset pulse as shown below:



5. When Reset applied during Sleep In Mode.

6. When Reset applied during Sleep Out Mode.

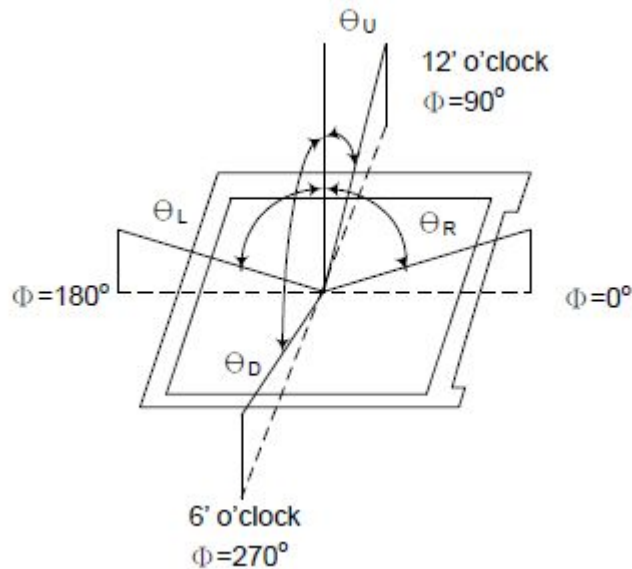
7. It is necessary to wait 5msec after releasing RESX before sending commands. Also Sleep Out command cannot be sent for 120msec.

5. LCD OPTICAL CHARACTERISTICS

($T_a=+25^{\circ}\text{C}$, $V_{CI}=+2.85\text{V}$ $\text{IOVCC}=+1.8\text{V}$, $I_B=20\text{mA}$)

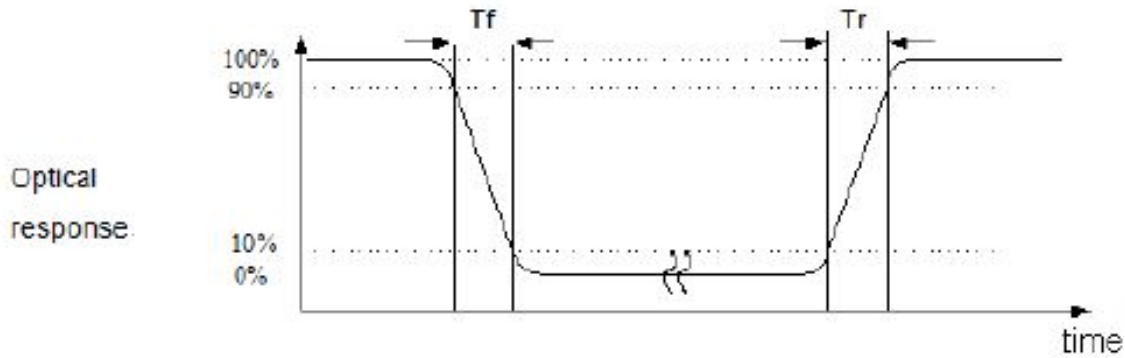
Item		Symbol	Condition	Values			Unit	Remark
				Min.	Typ.	Max.		
Viewing Angle Range	Left	θ_L	$CR \geq 10$	-	45	-	degree	Note 1
	Right	θ_R		-	45	-		
	Top	Φ_T		-	50	-		
	Bottom	Φ_B		-	20	-		
Response Tim		$T_{on} + T_{off}$	Normal $\theta = \Phi = 0^{\circ}$	-	16	-	ms	Note 2
Contrast Ratio		CR	Normal $\theta = \Phi = 0^{\circ}$	-	500	-	-	Note 3
Luminance		L	Normal $\theta = \Phi = 0^{\circ}$	250	300	-	cd/m^2	Note 4
Color Chromaticity (CIE1931)	White	X	Normal $\theta = \Phi = 0^{\circ}$	0.245	0.275	0.305	-	Note 5
		Y		0.270	0.300	0.330		

Note 1: Definition of viewing angle range



Note 2: Definition of response time

The output signals of TRD-100 are measured when the input signals are changed to "White" (falling time) and from "White" to Black" (rising time). respectively. The interval is between the 10% and 90% of amplitudes. Refer to figure as below.



Note 3: Definition of contrast ratio

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

Note 4: Definition of luminance

Measured at the center area of the panel when LCD panel is driven at "white" state.

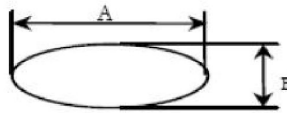
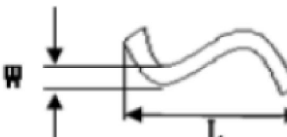
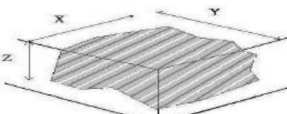
Note 5: Definition of color chromaticity (CIE1931)

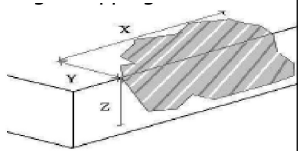
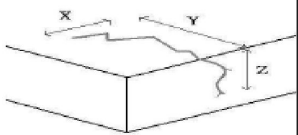
Color coordinates measured at the center point of LCD when panel is driven at "White", "Red", "Green" and "Blue" state respectively.

Note 7:

CDY shipping status is cell without polarizer. Transmittance of Specification is cell with polarizer

6.THE STANDARD OF INSPECTION

Item NO.	Inspection Item	Inspection Standard		Classification of defects
1	LCD Electrical function testing	1) No display 2) Missing line 3) No backlight 4) shadow 5) black/blue display 6) Irregular operating 7) visual angle is wrong		Major
2	CTP function test	No open and No short for ALL X/Y sensors, test of accuracy/linearity/sensitivity/separation/ Jitter/anti-moisture is OK		Major
3	Outline dimension	All outline dimension beyond the drawing is not allowed		Major
4	White/Black spot (in LCD or Backlight)  $D=(A+B)/2$	$D \leq 0.10\text{mm}$	Ignore.	Minor
		$0.10\text{mm} < D \leq 0.25\text{mm}$	To be max 3points. (distance $\geq 5\text{mm}$)	
		$D > 0.25\text{mm}$	Not allowed.	
5	Color/bright/dark dot	Color not allowed Bright/dark dot as same as White/Black spot		Minor
6	Dirt in CTP	as same as White/Black spot		Minor
7	Dent at CTP	as same as White/Black spot		Minor
8	Bubble	as same as White/Black spot		Minor
9	Scratch /Lines defect: 	$W \leq 0.02\text{mm}, L \leq 5\text{mm}$	Ignore.	Minor
		$0.02\text{mm} < W \leq 0.05\text{mm};$ $L \leq 5.00\text{mm}$	$N \leq 3$ (distance $\geq 10\text{mm}$)	
		$W > 0.05\text{mm}, L > 5\text{mm}$	Not allowed.	
10	Particle lines defect	$W \leq 0.02\text{mm}, L \leq 2.5\text{mm}$	Ignore.	Minor
		$0.02\text{mm} < W \leq 0.05\text{mm};$ $L \leq 2.50\text{mm}$	$N \leq 2$ (distance $\geq 10\text{mm}$)	
		$W > 0.05\text{mm}, L > 2.5\text{mm}$	Not allowed.	
11	Conner Chipping: 	Length $X < 1.0\text{ mm}$ Width $Y < 1.0\text{mm}$ Thickness $Z \leq \text{Glass thickness}$ (Sealant area could not be broken)		Minor

12	Edge Chipping: 	Length $X < 1.5 \text{ mm}$ Width $Y < 1.5 \text{ mm}$ Thickness $Z \leq \text{Glass thickness}$ (Sealant area could not be broken)	Minor
13	Crack: 	Not allowed.	Minor

Note: 1. Viewing distance: 30 +/- 2 cm

2. Inspection angle: 45 degrees in 6 o' clock direction (all defects in viewing area should be inspected from this direction), Rotate 30° about the vertical axis.

3. Light Source: 500~700Lux +/- 20%, black background.

7.RELIABILITY TESTS

ITEM	CONDITION	CRITERION
Operating Temperature Test	High Temperature: +70 °C, 120 hrs	No defects in display and operational functions
	Low Temperature: -20 °C, 120 hrs	
Storage Temperature Test	High Temperature: +80 °C, 120 hrs	No defects in display and operational functions
	Low Temperature: -30 °C, 120 hrs	
Humidity Endurance Test	60°C, 90%RH, 120 hrs	No defects in display and operational functions
Thermal Shock Test	-30 °C (30mins)~ +80 °C (5mins) 50 cycles	No defects in display and operational functions
Vibration Resistance Test	Operating Time: thirty minutes exposure for each direction (X,Y,Z) Sweep Frequency: 10~55Hz (1 min) Amplitude: 1.5mm	No defects in display and operational functions
Mechanical Shock	Height :76cm (Weight $\leq 9.5\text{kg}$); 61cm($9.5 < \text{Weight} \leq 18.6\text{kg}$) 1 corner, 3 edges, 6 surfaces	No defects in display and operational functions
Electro Static Discharge	$\pm 4\text{KV}$, Human BodyMode, 150pF/330 Ω ; $\pm 8\text{KV}$, Air Mode, 150pF/330 Ω	No defects in display and operational functions

NOTE:

1) The samples must be free from defect before test, must be restored at room condition at least for 2 hours after reliability test before any inspection.

2) Before test the function of TP, the sample must be placed in room temperature for 24hrs after RA test.

8. PRECAUTIONS

8.1. Handling

- 8.1.1. Polarizer Cleaning, Petroleum ether (or N-hexane) is recommended for cleaning the front/rear polarizers and reflectors, acetone, toluene and ethanol are not allowed to avoid damaging the surface.
- 8.1.2. Body grounding, must wear Anti-ESD wrist strap while pick up LCDs.
- 8.1.3. FPC Soldering, less than 300°C/3S, solder must be grounding on grounding bench.
- 8.1.4. If use electric Screwdriver to do assembly, screwdriver must be grounding.

8.2. Storage

- 8.2.1. Keep in a sealed polyethylene bag.
- 8.2.2. Keep in a dark place.
- 8.2.3. Keep in temperature between 0°C and 35°C.
NOT allowed at 70°C for more than 160 Hours, or at -20°C for more than 48 Hrs.

8.3. Safety

If liquid crystal leak out of a damaged glass cell, DO NOT put it in your mouth or touch eyes, if the liquid crystal touch your skin or clothes, please wash it off immediately using soap and water.

9. LIMITED WARRANTY

Unless otherwise agreed between SUPERVIEW and customer, SUPERVIEW will replace or repair any of its LCD modules which are found to be functionally defective when inspected in accordance with SUPERVIEW LCD acceptance standards (copies available upon request) for a period of one year from date of shipments. Cosmetic/visual defects over specs must be returned to SUPERVIEW within 30 days of shipment. Confirmation of such date shall be based on freight documents. The warranty liability of SUPERVIEW limited to repair and/or replacement on the terms set forth above. SUPERVIEW shall not be responsible for any subsequent or consequential events.

9.1. Returning Lcm Under Warranty – Terms And Conditions

9.1.1. No warranty can be granted if the precautions stated above have been disregarded. The typical examples of violations are :

- Broken LCD glass.
- Circuit modified in any way, including addition of components.

9.1.2. Module repairs will be invoiced to the customer upon mutual agreement. Modules must be returned with sufficient description of the failures or defects. Any connectors or cable installed by the customer must be removed completely without damaging the PCB's eyelet, conductors and terminals.

10.RELIABILITY TEST REPORT

Superview
高展光电

深圳市高展光电有限公司

文件标题	可靠性测试报告	文件编号	GZ-QHSE-FM-105-A1	保存年限	3 年
建立单位	品质实验室	文件管理单位	文控中心	页码	1/1

G02804AZ01A2 可靠性测试报告

产品型号	G02804AZ01A2	工单号		报告编号	LAB20210310001			
阶段	☐ 样品阶段 ☐ 试产 ☒ 量产 ☐ 其他							
实 验 项 目	数量		实验条件					
1	高温存储		80℃×96H					
2	高温运行		70℃×96H					
3	低温存储		-30℃×96H					
4	低温运行		-20℃×96H					
5	高温高湿		60℃×90%RH×96H					
测试目的	验证产品电性及外观的可靠性							
实验标准	依照文件 GZ-QHSE-WI-087 可靠性试验规范作业							
试验结果								
项目 样品	判定标准：依据文件 GZ-QHSE-WI-107 成品检验作业规范							
	外观		显示效果		判定结果			
	实验前	实验后	实验前	实验后				
1#	OK	OK	OK	OK	PASS			
2#	OK	OK	OK	OK	PASS			
3#	OK	OK	OK	OK	PASS			
4#	OK	OK	OK	OK	PASS			
5#	OK	OK	OK	OK	PASS			
结论	☒ PASS ☐ FAIL							
备注								
作成	魏俊源	检查	梁丽华	核准	刘黎			

11.SAMPLE TEST REPORT

Superview
高展光电

深圳市高展光电有限公司

SHENZHEN SUPERVIEW PHOTOELECTRIC CO.,LTD.

样品标签

样品检测报告

料号	G02804AZ01A2	项目号		GD3408B V00	报告编号		202103100001		
结构尺寸:		单位: mm							
检测项目	规格要求	测量结果							
		样品 1	样品 2	样品 3	样品 4	样品 5	平均值	判定	备注
1	50+/-0.15	50.1	50.11	50.14	50.1	50.11		OK	
2	69.2+/-0.15	69.15	69.14	69.17	69.18	69.17		OK	
3	63+/-0.5	62.99	62.97	62.98	62.94	62.97		OK	
4	18.5+/-0.5	18.48	18.47	18.45	18.42	18.41		OK	
5	39+/-0.5	38.95	38.94	38.92	38.97	38.99		OK	
6	0.3+/-0.03	0.29	0.28	0.3	0.29	0.29		OK	
7	2.3+/-0.15	2.29	2.3	2.31	2.29	2.28		OK	
8	15.5+/-0.1	15.41	15.45	15.43	15.41	15.43		OK	
9	14.5+/-0.05	14.48	14.47	14.48	14.47	14.46		OK	
10	0.5+/-0.1	0.44	0.46	0.47	0.45	0.41		OK	
11	0.35+/-0.3	0.33	0.32	0.31	0.33	0.31		OK	
12	3.5+/-0.3	3.44	3.41	3.45	3.42	3.45		OK	
测试仪器	BM-7			电流	30mA	日期	2021.03.15		
检测项目	样品 1	样品 2	样品 3	样品 4	样品 5				
	LCM	LCM	LCM	LCM	LCM				
测试点 1	415	389	408	399	399				
测试点 2	438	430	432	422	398				
测试点 3	455	451	451	441	397				
测试点 4	454	437	451	442	402				
测试点 5	427	428	446	421	415				
测试点 6	422	412	428	431	435				
测试点 7	446	423	460	450	445				
测试点 8	452	440	470	457	446				
测试点 9	442	436	455	435	452				
最大值	455	451	470	457	452				
最小值	415	389	408	399	397				
均匀性 (≥80%)	91.2	86.2	86.8	87.3	87.8				
平均值(250MIN)	439	427	444	433	421				
色 坐 标 X:0.275±0.03 Y:0.295±0.03	0.2748	0.2770	0.2776	0.2765	0.2754				
	0.2964	0.3019	0.3020	0.3021	0.2990				
备注:									
制表: 贾红桥 日期: 2021.03.10 核准: 田惠青 日期: 2021.03.10									

编号: GZ-QHSE-FM-252

1T000465 Product material composition declaration list-LCM

			2021/4/6																			
序号 N	品名 Part name	类别 Type	ROHS								4P				HF				检测机构 Test organiza	ICP编号 ICP No.	检测日期 Test da	检测报告贴附 Test report
			C	Cd	Pb	Hg	PAHs	PFOS	PFOA	DEHP	DIBP	BPA	DINCH	DBP	F	REACH						
1	偏光片 Polarizer	偏光片 Polarizer	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	A2210082733101001E A2210082733101002E A2210082733102001E	2021.3.19 2021.3.20	 A2210082733101001E  A2210082733101002E  A2210082733102001E		
2	芯片 IC	芯片 IC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	ETR20B02621 ETR20B02618	2020.11.23	 IC RoHS ETR20B02621  IC RoHS ETR20B02618		
3	玻璃 Lcd panel	玻璃 Lcd panel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	/	/	ND	ND	ist	A2210044203102001	2021.03.12	 CTC A2210044203102001		
4	柔性线路板 FPC	覆层膜 PI film	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	384	ND	SGS	CANEC2103092902 CANEC2103092972 CANEC2103092910	2021.3.11 2021.3.12	 CANEC2103092902  CANEC2103092972  CANEC2103092910		
		白色油墨 White INK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	A2210037052101001E A2210037052101003E A2210037052101011E	202.2.6	 A2210037052101001E  A2210037052101003E  A2210037052101011E	
		双面基材 PI base material	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	A2200473473101001E A2200473473102001E	2021.1.5 2021.1.6	 A2200473473101001E  A2200473473102001E	
5	背光 Back light	塑胶原料 Plastic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	778	ND	ND	ND	SGS	CANEC2011631301 CANEC2011631302 CANEC2011631304	2020.7.17	 CANEC2011631301  CANEC2011631302  CANEC2011631304		
		反射膜 Reflector film	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	EKR20B00300 EKR20B00301	2020.11.10	 EKR20B00300  EKR20B00301	
		黑白胶 Black&White adhesive	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	A2200313028101001E A2200451747101001E	2020.9.12 2020.12.19	 A2200313028101001E  A2200451747101001E	
6	ACF(COG)	AC-805A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	/	ND	327	ND	SGS	CE202043405 GT202000942	2020.4.23 2020.4.30	 AC-805A CE202043405  LCD ACF GT202000942		
	ACF(COG)	AC-7813KM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	/	ND	ND	ND	SGS	CE202083702 GT202000942	2020.8.28 2020.4.30	 AC-7813KM CE202083702  LCD ACF GT202000942		

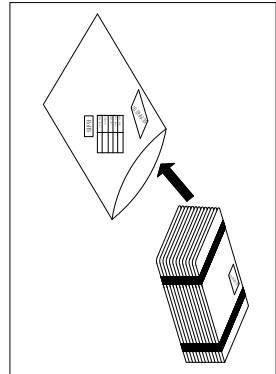
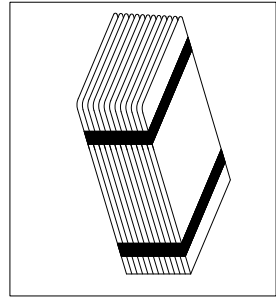
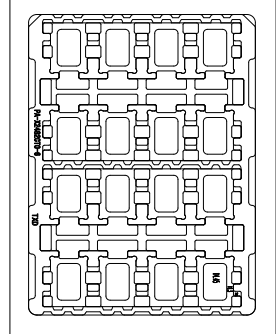
13.PACKING

1. 0包装说明

(1) 产品装盘

(2) 10+1层包 (上空盘) 吸塑交叉叠加,用透明胶固定
吸塑盒规格: 370*270*15mm

(3) 固定好的吸塑装入防静电PET袋并封好右
上角贴标签



(4) 放泡棉垫在纸箱底部
规格: 360mm*270mm*20mm

2. 0标签说明

(1) 外箱标签

深圳市高展光电有限公司
品名
规格
数量
生产日期
有效期至
检验员
备注

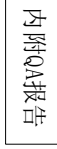
(2) 内箱标签

深圳市高展光电有限公司
品名
规格
数量
生产日期
有效期至
检验员
备注

(3) 防拆标签



(4) 内附QA报告标签



(5) 尾数标签



(6) RoHS标签

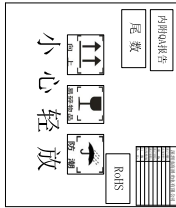
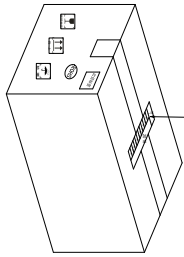


3. 0包装材料清单:

序号	品名	规格	单位	数量
1	供应面提供	外箱	PCS	
2	供应面提供	吸塑盒	PCS	
3	G02804AZ01A2	500*700*4, 透明PET T-0.7	PCS	
4	自行打印	150mm*60, 白底黑字中英文版	PCS	
5	自行打印	150mm*60, 白底黑字中英文版	PCS	
6	G02804AZ01A2	170mm*30, 白底黑字中英文版	PCS	
7	供应面提供	通用标签	PCS	
8	G02804AZ01A2	150mm*52, 白底黑字中英文版	PCS	
9	G02804AZ01A2	150mm*52, 白底黑字中英文版	PCS	
10	供应面提供	尾数标签: 170mm*28mm, 绿色长方形	PCS	
11	供应面提供	防拆标签: 350mm*270mm*20mm, PET防静电, 白色	PCS	

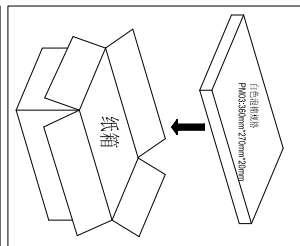
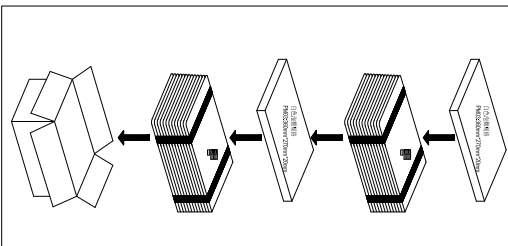
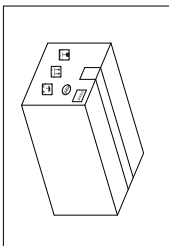
4. 0标签贴附位置

在此位置贴“防拆标签”
先用封箱胶带固定好纸箱
再贴防拆标签(注: 纸箱上
盖及下盖都需要贴防拆标签)



(5) 产品放入纸箱再垫顶
层泡棉

(6) 封箱



A

B

C

D

1

2

3

4

5

6

7

8

00	20210406	00	JHQ
00	20210406	00	JHQ
00	20210406	00	JHQ
00	20210406	00	JHQ

TYPE	包装	MODEL NO.	GD3401
SCALE	1:1	PROJECT NO.	PAK-G02804AZ01A3
Material	COLOR	UNIT	mm
1:1	COLOR	UNIT	mm

APPROVED BY	CHECKED BY	DRAWN BY
核准	审核	制图
深圳市高展光电有限公司		
SHENZHEN SUPERVIEW PHOTOELECTRIC CO., LTD.		

A

B

C

D