

深圳市亿显国际科技有限公司 ShenZhen Yes-Display International Technology CO.,LTD.			8.0 寸液晶显示屏 8.0 Inch LCD Display Screen	
File NO.		REV	A/01	http://www.yes-display.com

SPECIFICATION FOR

Module:YS-1024600-0800N-40C-03 V1.0

Designed by	R&D Checked by	Quality Department by	Approved by

Approval by Customer:

OK

NG, Problem survey

Approved By _____

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1. Technical parameters

1.1 LCM General Information

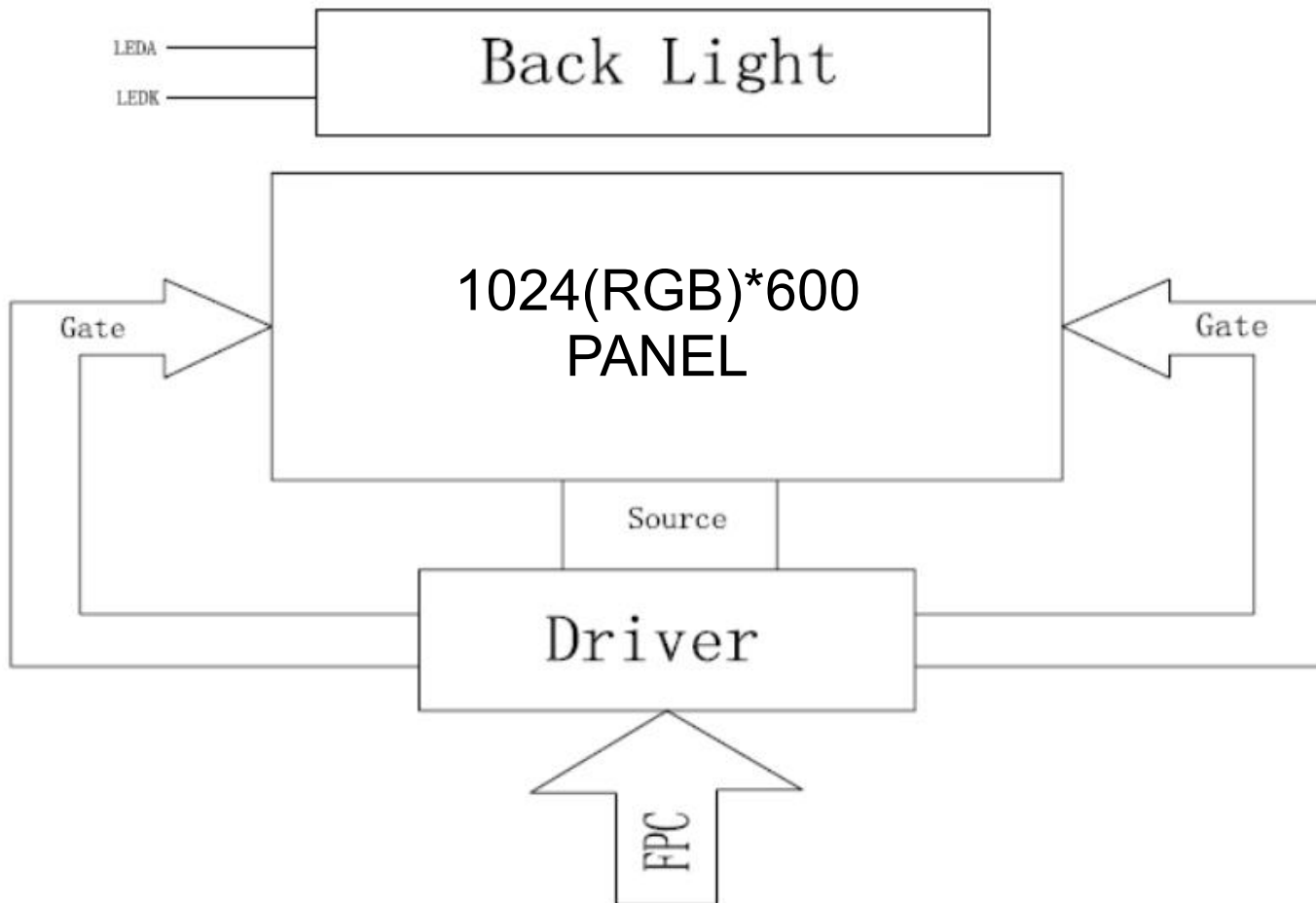
ITEM	STANDARD VALUES	UNITS
LCD type	8.0" TFT	--
Dot arrangement	1024(RGB) × 600	dots
Color filter array	RGB vertical stripe	--
Display mode	TN / Transmission / Normally White	-
Optimum viewing direction	6 O'CLOCK	--
Module size	192.8(W) × 116.9(H) × 6.4(T)(Exclude FPC)	mm
Active area	176.64(W) × 99.36(H)	mm
Pixel pitch	0.0575X3(H) X 0.1656(V)	mm
Interface	LVDS	--
Operating temperature	-20 ~ +70	°C
Storage temperature	-30 ~ +80	°C
Back Light	White LED*18	--

1.2 CTP General Information

TBD

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2. Block Dimension



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4. Input terminal Pin Assignment Description

4.1 TFT Pin Description

PIN NO.	PIN NAME	DESCRIPTION
1	VCOM	Common Voltage
2-3	VDD	Power Voltage for digital circuit
4	NC	No connection
5	Reset	Global reset pin
6	STBYB	Standby mode, Normally pulled high STBYB = "1", normal operation STBYB = "0", timing controller, source driver will turn off, all output are High-Z
7	GND	Ground
8	RXIN0-	- LVDS differential data input
9	RXIN0+	+ LVDS differential data input
10	GND	Ground
11	RXIN1-	- LVDS differential data input
12	RXIN1+	+ LVDS differential data input
13	GND	Ground
14	RXIN2-	- LVDS differential data input
15	RXIN2+	+ LVDS differential data input
16	GND	Ground
17	RXCLKIN-	- LVDS differential clock input
18	RXCLKIN+	+ LVDS differential clock input
19	GND	Ground
20	RXIN3-	- LVDS differential data input
21	RXIN3+	+ LVDS differential data input
22	GND	Ground
23-24	NC	No connection
25	GND	Ground
26	NC	No connection
27	DIMO	Backlight CABC controller signal output

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28	SELB	6bit/8bit mode select
29	AVDD	Power for Analog Circuit
30	GND	Ground
31-32	LED-	LED Cathode
33	L/R	Horizontal inversion
34	U/D	Vertical inversion
35	VGL	Gate OFF Voltage
36	CABCEN1	CABC H/W enable
37	CABCEN0	CABC H/W enable
38	VGH	Gate ON Voltage
39-40	LED+	LED Anode

I: input, O: output, P: Power

Note1: If LVDS input data is 6 bits ,SELB must be set to High;

If LVDS input data is 8 bits ,SELB must be set to Low.

Note2: When CABC_EN="00", CABC OFF.

When CABC_EN="01", user interface image.

When CABC_EN="10", still picture.

When CABC_EN="11", moving image.

When CABC off, don't connect DIMO, else connect it to backlight.

Note3: When L/R="0", set right to left scan direction.

When L/R="1", set left to right scan direction.

When U/D="0", set top to bottom scan direction.

When U/D="1", set bottom to top scan direction.

Note4: Definition of scanning direction.Refer to the figure as below:

4.2 TP Pin Description

TBD

5. LCD Optical Characteristics

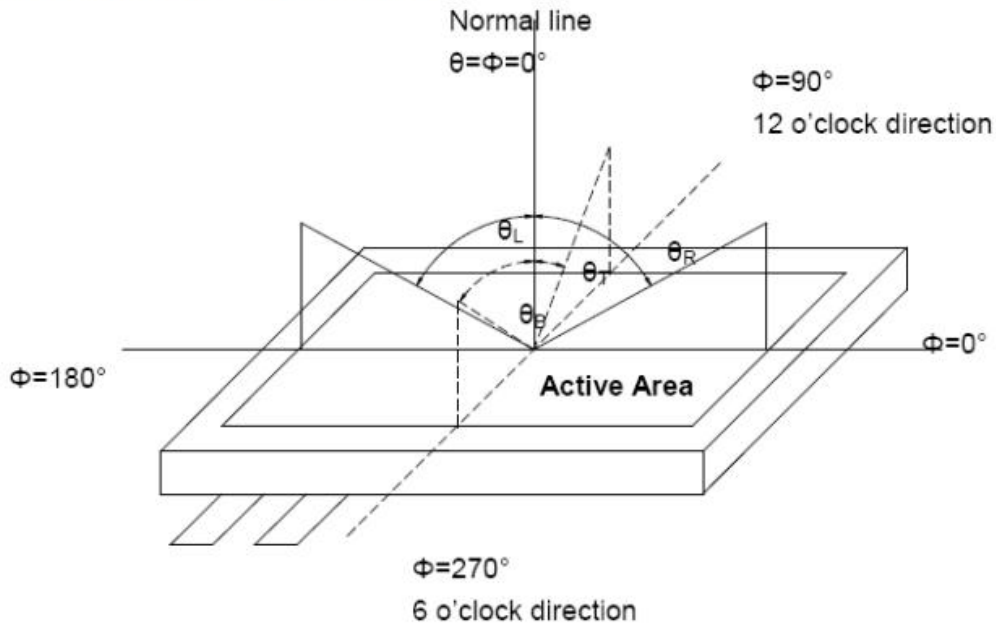
Item	Symbol	Condition	Specification			Unit	Remark
			Min.	Typ.	Max.		
Response time	Tr	$\theta = 0^\circ$	-	10	20	ms	Note 3
	Tf		-	20	30		
	Tr+Tf		-	30	-		
Contrast ratio	CR	$\theta = 0^\circ$	500	700	-		Note 2,4
Viewing angle	Top(12 o'clock)	$CR \geq 10$	60	70	-	deg.	Note 1
	Bottom(6 o'clock)	$CR \geq 10$	65	75	-		
	Left(9 o'clock)	$CR \geq 10$	65	75	-		
	Right(3 o'clock)	$CR \geq 10$	65	75	-		
Color chromaticity(CIE 1931) (Color saturation base on CF only with ITO&light source is C light)	Wx	$\theta = 0^\circ$	-0.015	0.309	+0.015		Note 5
	Wy			0.326			
	Rx			0.648			
	Ry			0.331			
	Gx			0.292			
	Gy			0.585			
	Bx			0.140			
	By			0.092			
Transmittance	Trans		3.20	3.55	-	%	
Cross talk	CT	-	-	-	1.2	%	Note 6

Test conditions:

1. VCC=3.3V, $V_{LED}=5.0V$, the ambient temperature is $25^\circ C$.
2. The test systems refer to Note 2.

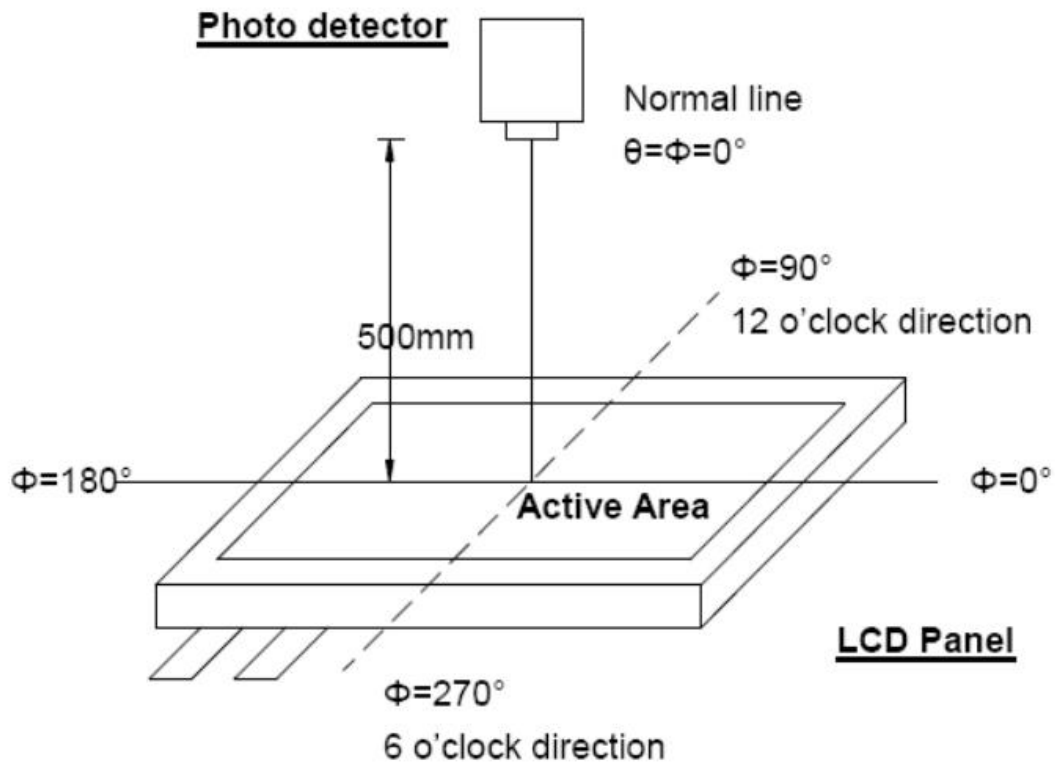
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Note 1: Definition of viewing angle range



Note 2: Definition of optical measurement system.

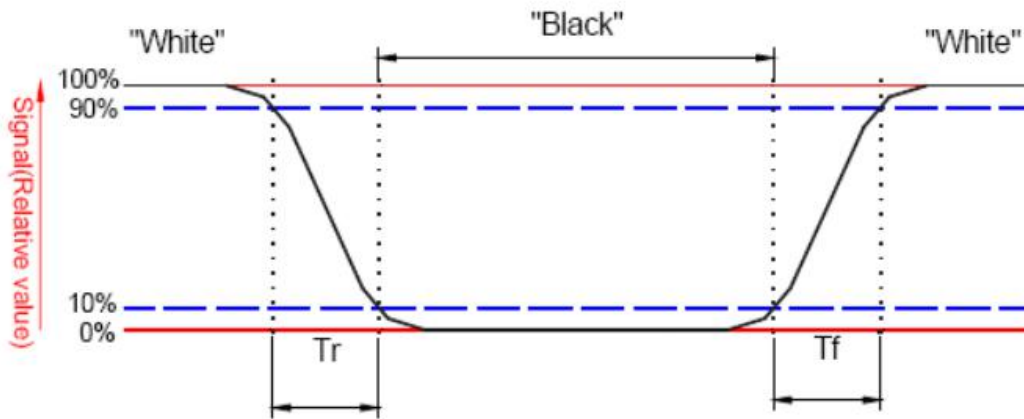
The optical characteristics should be measured in dark room. The optical properties are measured at the center point of the LCD screen, (Response time is measured by Photo detector TRD_100, other items are measured by BM-5A/Field of view : 1° /Height 500mm.)



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Note 3: 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 4: Definition of contrast ratio:

Contrast ratio is calculated by the following formula.

$$\text{Contrast ratio (CR)} = \frac{\text{Brightness on the "white" state}}{\text{Brightness on the "black" state}}$$

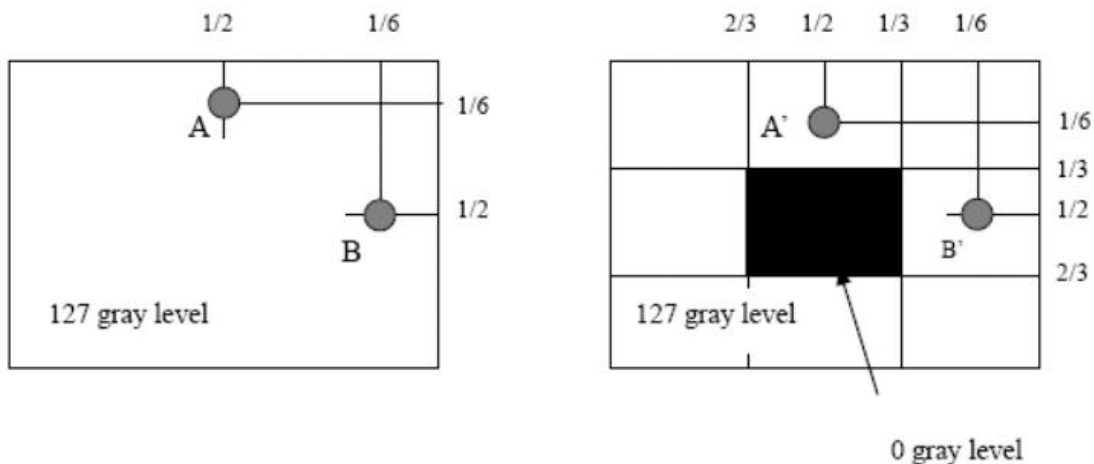
Note 5: Definition of color chromaticity (CIE 1931)

Color coordinates measured at center point of LCD. CF only measure under C light simuzation

Note 6: Definition of crosstalk:

$|L_A - L_{A'}| / L_A \times 100\% \leq 1.2\% \text{ max.}$, L_A and $L_{A'}$ are brightness at location A and A'

$|L_B - L_{B'}| / L_B \times 100\% \leq 1.2\% \text{ max.}$, L_B and $L_{B'}$ are brightness at location B and B'



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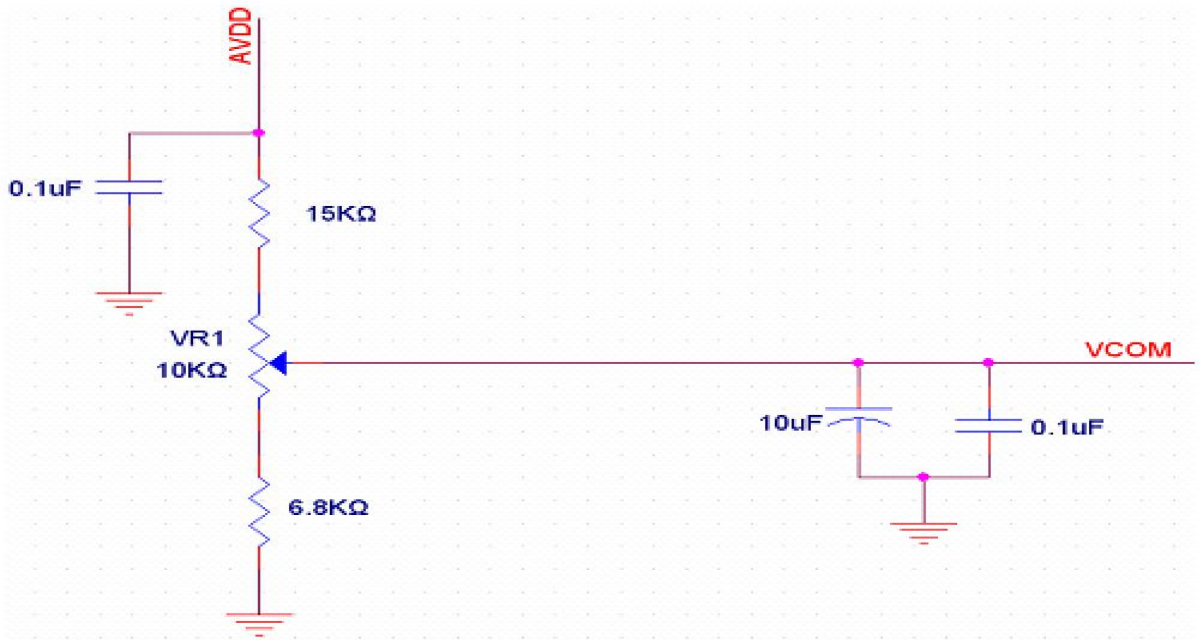
6. TFT Electrical Characteristics

6.1 Absolute Maximum Ratings

Item	Symbol	Min.	Max.	Unit
TFT Power supply voltage	VDD	-0.3	5.0	V
	AVDD	6.5	13.5	V
	VGH	-0.3	42	V
	VGL	-20	0.3	V
	VGH-VGL	-	40	V
CTP Logic Voltage	IOVCI	1.8	3.6	V
CTP Analog Voltage	VDD	-0.3	3.6	V
Operating Temperature	TOP	-20	80	°C
Storage Temperature	TST	-30	80	°C
Storage Humidity	HD	20	90	%RH

6.2 DC Characteristics

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
TFT Power Supply Voltage	VDD	2.5	2.8	3.6	V	-
	AVDD	10.8	11	11.2	V	-
	VGH	19.7	20	20.3	V	-
	VGL	-6.5	-6.8	-7.1	V	-
CTP Logic Voltage	IOVCI	1.8	-	3.3	V	-
CTP Analog Voltage	VDD	2.8	-	3.3	V	-
Input signal Voltage	VCOM	2.7	3.7	4.7	V	-
Input High Voltage	VIH	0.7VDD	-	VDD	V	-
Input Low Voltage	VIL	GND	-	0.3 VDD	V	-
I/O Leak Current	ILI	-1	-	1	uA	-

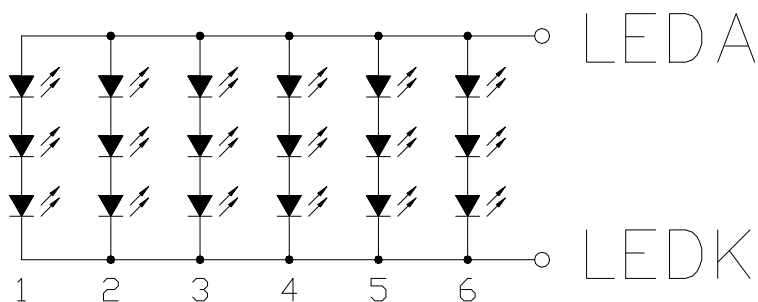


Current Consumption

(GND=AV_{SS}=0V)

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Current for Driver	I _{GH}	-	0.25	1.0	mA	V _{GH} =20V
	I _{GL}	-	0.25	1.0	mA	V _{GL} = -6.8V
	I _{DD}	-	38	60	mA	DV _{DD} =3.3V
	I _{AV_{DD}}	-	20	30	mA	AV _{DD} =11V

6.3 LED Backlight Characteristics



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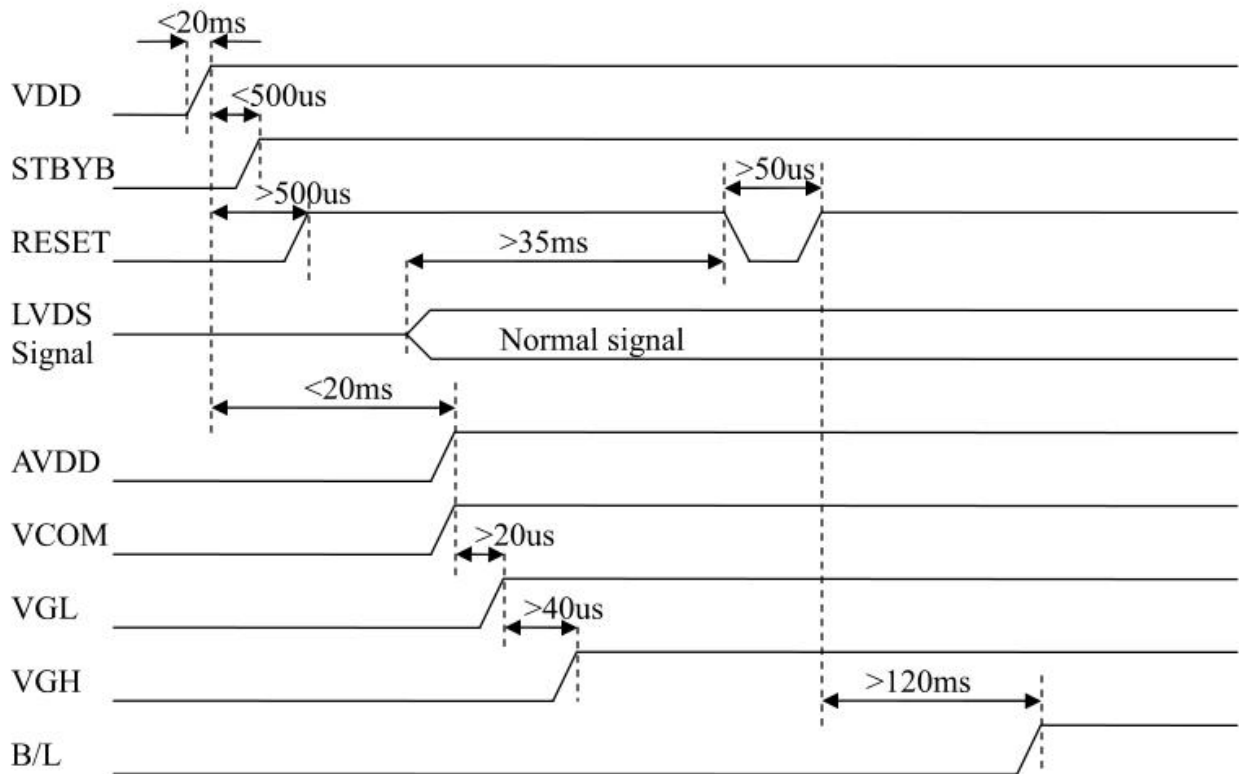
Item	Symbol	MIN	TYP	MAX	UNIT	Test Condition
Supply Voltage	Vf	-	9.9	10.5	V	If=360mA
Supply Current	If	-	360	-	mA	-
Luminous Intensity for LCM	-	-	500	-	cd/m ²	If=360mA
Uniformity for LCM	-	80	-	-	%	If=360mA
Life Time	-	20000	-	-	Hr	If=360mA
Backlight Color	White					

7. Timing Characteristics

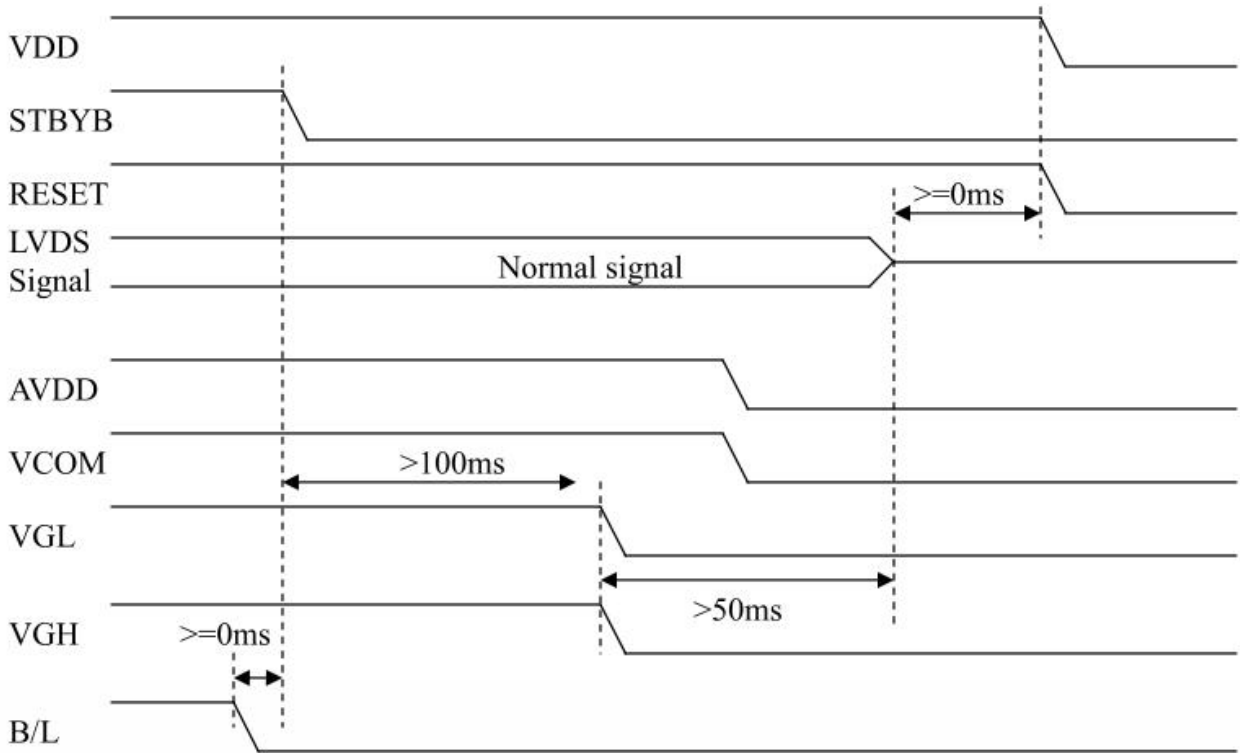
7.1 TFT Timing Characteristics

7.1.1 Power on/off control

Power on



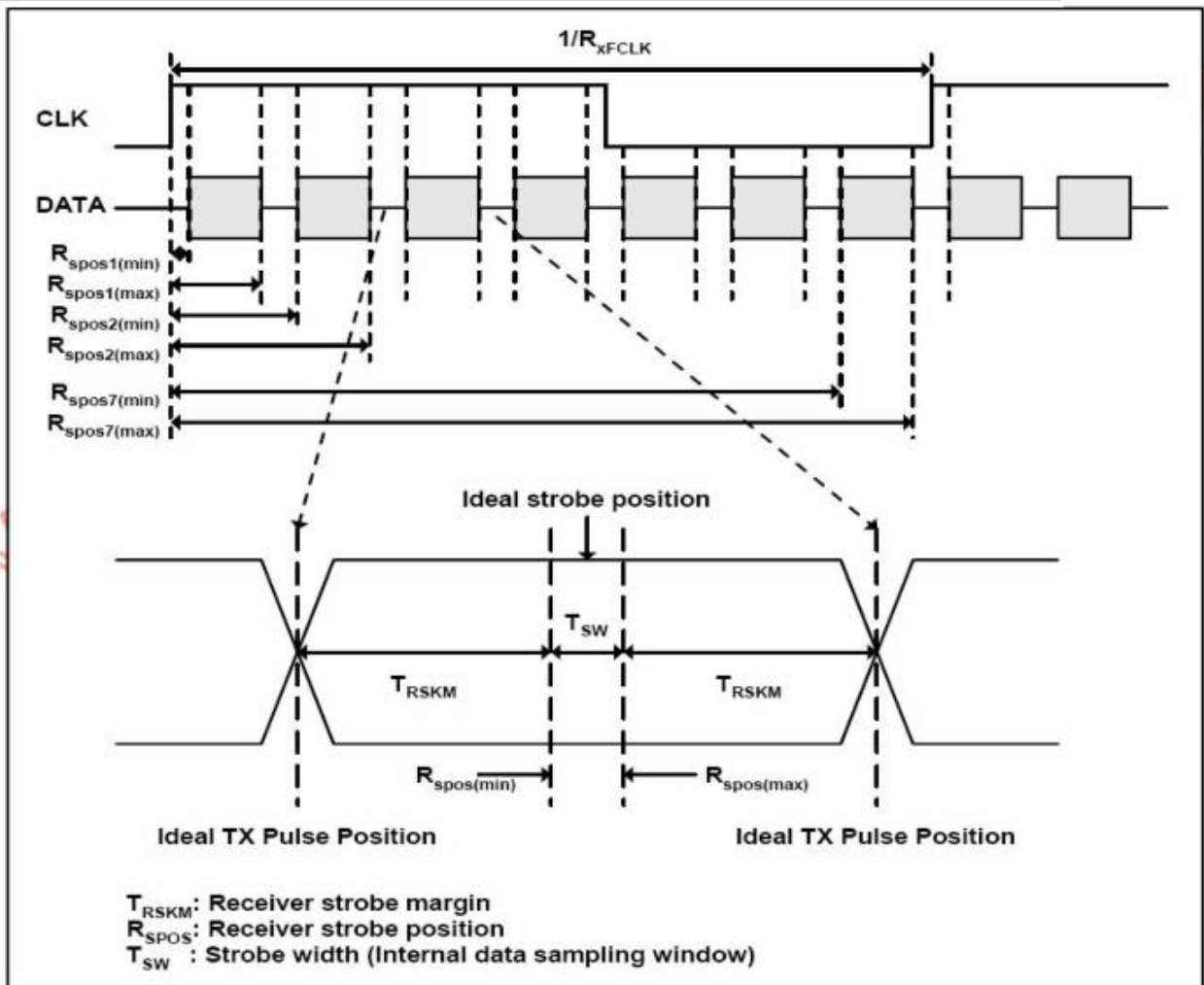
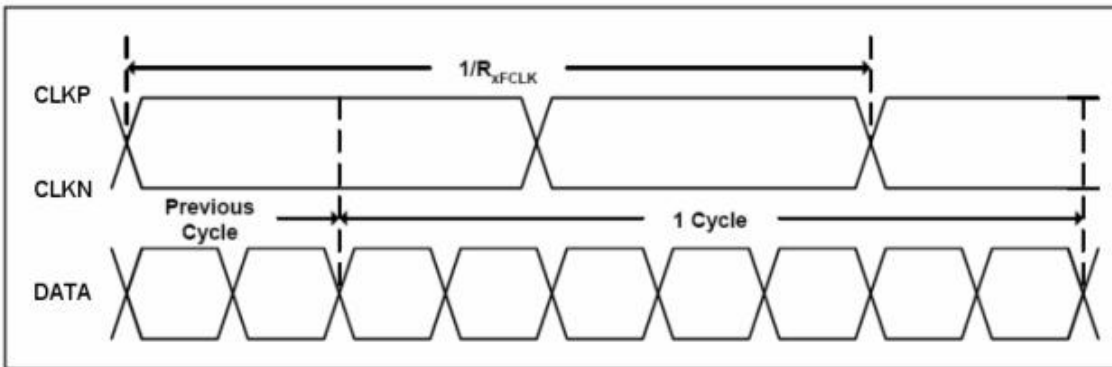
Power off



7.1.2 AC Electrical Characteristics

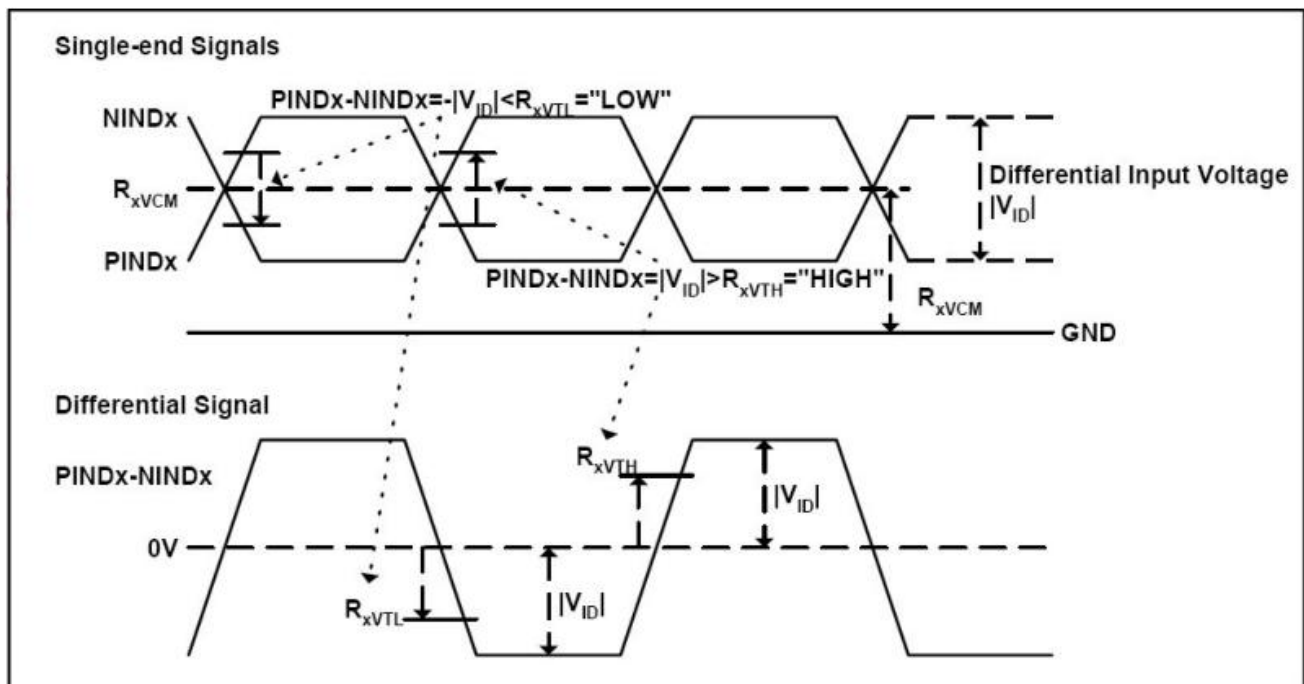
Parameter	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Clock frequency	R_{xFCLK}	20	-	71	MHz	
Input data skew margin	T_{RSKM}	500	-	-	ps	
Clock high time	T_{LVCH}	-	$4/(7 * R_{xFCLK})$	-	ns	
Clock low time	T_{LVCL}	-	$3/(7 * R_{xFCLK})$	-	ns	

7.1.3 Input Clock and Data Timing Diagram



7.1.4 DC Electrical Characteristics

Parameter	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Differential input high Threshold voltage	R_{xVTH}	-	-	+0.1	V	
Differential input low Threshold voltage	R_{xVTL}	-0.1	-	-	V	
Input voltage range (singled-end)	R_{xVIN}	0	-	2.4	V	
Differential input common mode voltage	R_{xVCM}	$ V_{ID} /2$	-	$2.4- V_{ID} /2$	V	
Differential voltage	$ V_{ID} $	0.2	-	0.6	V	
Differential input leakage current	$R_{V_{xIIZ}}$	-10	-	+10	uA	



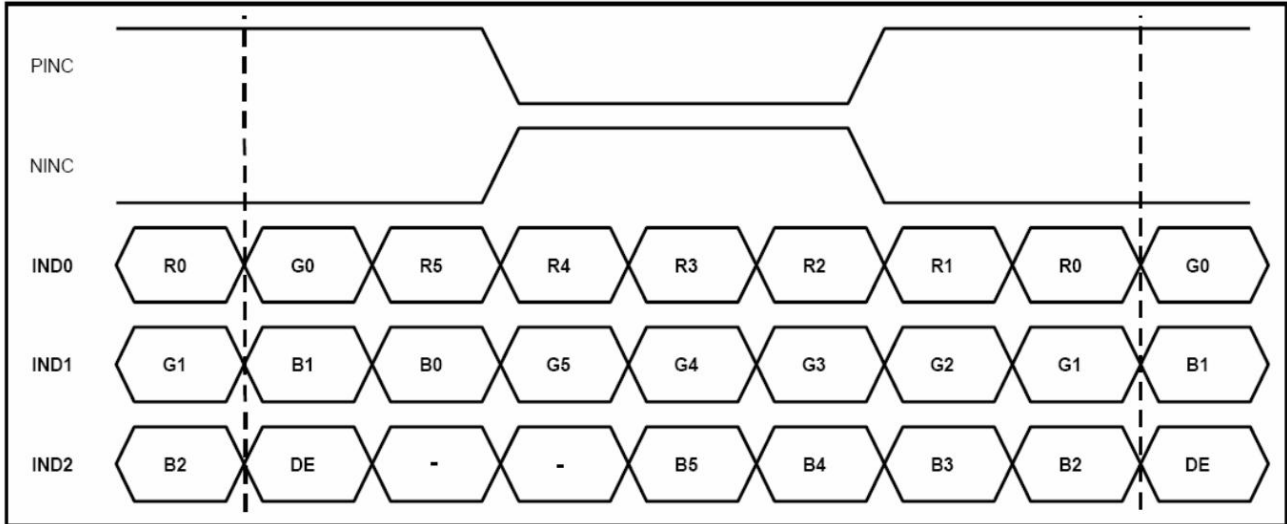
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7.1.5 Timing

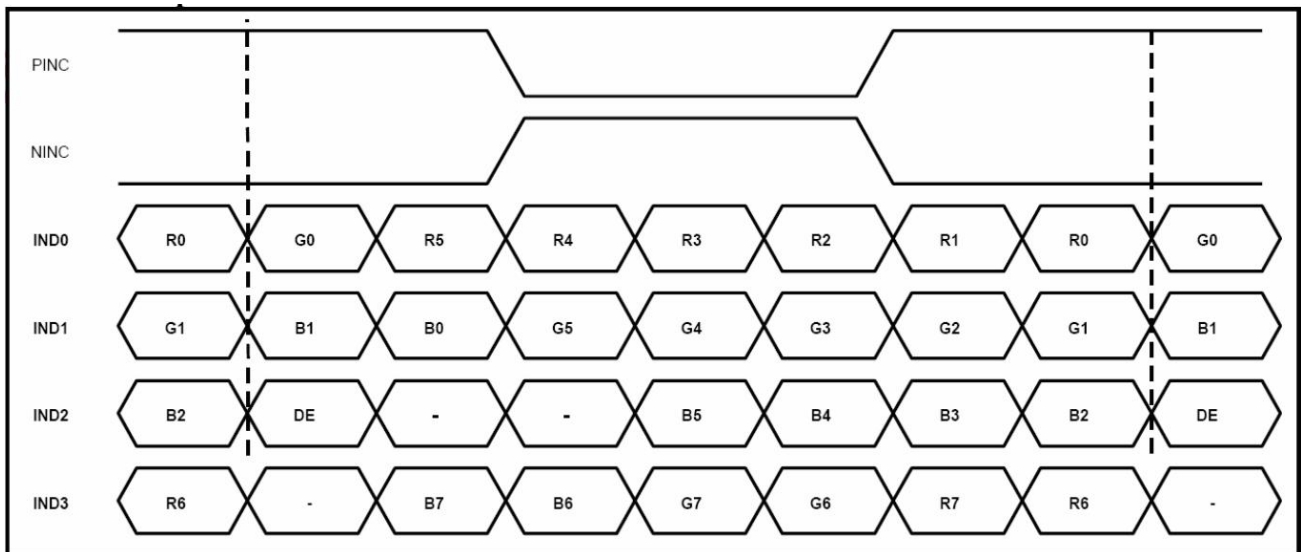
Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Clock Frequency	fclk	40.8	51.2	67.2	MHz	Frame rate =60Hz
Horizontal display area	thd	1024			DCLK	
HS period time	th	1114	1344	1400	DCLK	
HS Blanking	thb	90	320	376	DCLK	
Vertical display area	Thb+thfp	600			H	
VS period time	tv	610	635	800	H	
VS Blanking	Tvb+tvfp	10	35	200	H	

7.1.6 Data Input Format

6bit LVDS input:



8bit LVDS input:



Note: Support DE timing mode only, SYNC mode not supported.

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8. Inspection Standard

8.1 Incoming Inspection and Standard:

The below incoming inspection are applied to the TFT LCM Modules supplied by ShenZhen Yes-Display International Technology CO.,LTD. The customers should inspect the LCM within 14 days after receiving the goods. The result of inspection should be notified to the Seller in the writing copy promptly, if the customer do not send them within 14 days, the seller has the right to judge as acceptance of goods. The inspection lot size is treated as the quantity per shipment and per model. The sampling plan shall be inspected under MIL-STD015E in Level II by single sampling. The acceptable quality level (AQL) are categorized as below grades:

CRITICAL= 0.4%, MAJOR= 0.65%, MINOR= 1.5%

8.2 Inspection condition and Warranty policy:

The delivered LCM should be stored properly, ideally under climate-controlled environment at 25 (±5) degree Celsius as well as 60% (±10) Relative Humidity. The LCM shall be inspected in the viewing angle of 45 degree from the four major angles (U/D/L/R) under the single fluorescent lamp of 20W (equal to 300 to 500 lux). For warranty, ShenZhen Yes-Display International Technology CO.,LTD. will provide 12 months of warranty period as standard, and provide the new replacement for the defective products which belong to the Seller's responsibility verified by the quality department.

8.3 Inspection Criteria:

8.3.1 Critical defect

Item No.	Inspection content	Judgement
8.3.1.1	Functional defects	No display, abnormal display, short circuit, missing line, off-contrast and chromaticity, Touch Panel non-function
8.3.1.2	Model mixed	Other model mixed

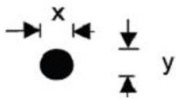
8.3.2 Major defect:

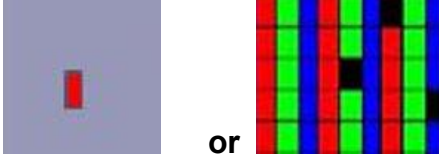
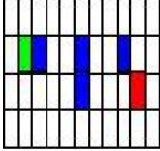
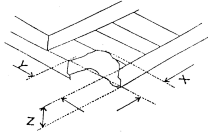
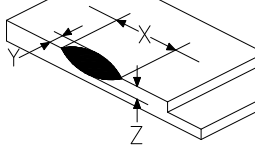
Item No.	Inspection content	Judgement
8.3.2.1	Product indication	Missing model no. and wrong model no. is indicated on the LCM.
8.3.2.2	Glass cracking	The LCD and touch panel glass crack or breakage

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8.3.2.3	Missing component	The function component missing such as connector, cable, etc.
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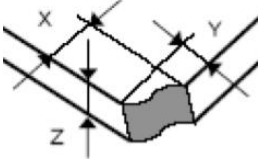
8.3.3 Minor defect (LCD) :

Item No.	Inspection content	Judgement												
8.3.3.1	Black/White spot Foreign particles Dust in the cell	$\phi = (x+y) / 2$  <table border="1"> <thead> <tr> <th>Diameter (mm)</th> <th>Acceptable Q'ty</th> </tr> </thead> <tbody> <tr> <td>$\Phi \leq 0.1$</td> <td>Ignore</td> </tr> <tr> <td>$0.1 < \Phi \leq 0.25$</td> <td>3 (Distance>5mm)</td> </tr> <tr> <td>$0.25 < \Phi$</td> <td>Not allowed</td> </tr> </tbody> </table>	Diameter (mm)	Acceptable Q'ty	$\Phi \leq 0.1$	Ignore	$0.1 < \Phi \leq 0.25$	3 (Distance>5mm)	$0.25 < \Phi$	Not allowed				
Diameter (mm)	Acceptable Q'ty													
$\Phi \leq 0.1$	Ignore													
$0.1 < \Phi \leq 0.25$	3 (Distance>5mm)													
$0.25 < \Phi$	Not allowed													
8.3.3.2	Linear defect Black/white line Black/white scratch	<table border="1"> <thead> <tr> <th>Length(mm)</th> <th>Width (mm)</th> <th>Acceptable Q'ty</th> </tr> </thead> <tbody> <tr> <td></td> <td>$W \leq 0.03$</td> <td>Ignore</td> </tr> <tr> <td>$L \leq 5.0$</td> <td>$0.03 < W \leq 0.07$</td> <td>3</td> </tr> <tr> <td></td> <td>$0.07 < W$</td> <td>Follow 8.3.3.1</td> </tr> </tbody> </table>	Length(mm)	Width (mm)	Acceptable Q'ty		$W \leq 0.03$	Ignore	$L \leq 5.0$	$0.03 < W \leq 0.07$	3		$0.07 < W$	Follow 8.3.3.1
Length(mm)	Width (mm)	Acceptable Q'ty												
	$W \leq 0.03$	Ignore												
$L \leq 5.0$	$0.03 < W \leq 0.07$	3												
	$0.07 < W$	Follow 8.3.3.1												
8.3.3.3	Polarizer Bubbles Dent on polarizer	<table border="1"> <thead> <tr> <th>Diameter (mm)</th> <th>Acceptable Q'ty</th> </tr> </thead> <tbody> <tr> <td>$\Phi \leq 0.2$</td> <td>Ignore</td> </tr> <tr> <td>$0.2 < \Phi \leq 0.5$</td> <td>2 (Distance>5mm)</td> </tr> <tr> <td>$0.5 < \Phi$</td> <td>Not allowed</td> </tr> </tbody> </table>	Diameter (mm)	Acceptable Q'ty	$\Phi \leq 0.2$	Ignore	$0.2 < \Phi \leq 0.5$	2 (Distance>5mm)	$0.5 < \Phi$	Not allowed				
Diameter (mm)	Acceptable Q'ty													
$\Phi \leq 0.2$	Ignore													
$0.2 < \Phi \leq 0.5$	2 (Distance>5mm)													
$0.5 < \Phi$	Not allowed													

<p>8.3.3.4</p>	<p>Electrical Defect Dot</p>	<p>Bright dot and Dark dot definition:</p>  <p>or</p>  <p>(Two adjacent dot)</p> <p>Inspection pattern: black, white, red, green, and blue screen.</p> <table border="1" data-bbox="730 730 1441 913"> <thead> <tr> <th>Items</th> <th>Acceptable Q'ty</th> </tr> </thead> <tbody> <tr> <td>Bright dot</td> <td>$N \leq 4$ (Distance >5mm)</td> </tr> <tr> <td>Dark dot</td> <td>$N \leq 4$ (Distance >5mm)</td> </tr> </tbody> </table>	Items	Acceptable Q'ty	Bright dot	$N \leq 4$ (Distance >5mm)	Dark dot	$N \leq 4$ (Distance >5mm)
Items	Acceptable Q'ty							
Bright dot	$N \leq 4$ (Distance >5mm)							
Dark dot	$N \leq 4$ (Distance >5mm)							
<p>8.3.3.5</p>	<p>Glass Defect- Corner chipping</p>	 <table border="1" data-bbox="730 1104 1441 1375"> <thead> <tr> <th>Size(mm)</th> <th>Judgement</th> </tr> </thead> <tbody> <tr> <td> $X \leq 3\text{mm}$, $Y \leq S$, $Z \leq T$ (S= ITO length, T=Single glass thickness) </td> <td>Accept</td> </tr> </tbody> </table>	Size(mm)	Judgement	$X \leq 3\text{mm}$, $Y \leq S$, $Z \leq T$ (S= ITO length, T=Single glass thickness)	Accept		
Size(mm)	Judgement							
$X \leq 3\text{mm}$, $Y \leq S$, $Z \leq T$ (S= ITO length, T=Single glass thickness)	Accept							
<p>8.3.3.6</p>	<p>Glass Defect- Side fragment</p>	 <table border="1" data-bbox="730 1574 1441 1787"> <thead> <tr> <th>Size(mm)</th> <th>Judgement</th> </tr> </thead> <tbody> <tr> <td> $X \leq 2 \text{ mm}$, $Y \leq \text{border edge}$ $Z \leq T$ (T= single glass thickness) </td> <td>Accept</td> </tr> </tbody> </table>	Size(mm)	Judgement	$X \leq 2 \text{ mm}$, $Y \leq \text{border edge}$ $Z \leq T$ (T= single glass thickness)	Accept		
Size(mm)	Judgement							
$X \leq 2 \text{ mm}$, $Y \leq \text{border edge}$ $Z \leq T$ (T= single glass thickness)	Accept							

8.3.4 Minor defect (Touch Panel)

Item No.	Inspection content	Judgement
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8.3.4.1	Scratch, dust, particles, foreign materials in "linear type"	Size (mm)	Acceptable Q'ty
		$W \leq 0.05\text{mm}, L \leq 10\text{mm}$	Ignore
		$0.05\text{mm} < W \leq 0.07\text{mm}, L \leq 10\text{mm}$	3
		$W > 0.07\text{mm}$	Reject
8.3.4.2	Scratch, dust, particles, foreign materials in "round type"	Diameter (mm)	Acceptable Q'ty
		$\Phi \leq 0.25\text{mm}$	Ignore
		$0.25\text{mm} < \Phi \leq 0.35\text{mm}$	5
		$\Phi > 0.35\text{mm}$	Reject
8.3.4.3	Air bubbles	Diameter (mm)	Acceptable Q'ty
		$\Phi \leq 0.2\text{mm}$	Ignore
		$0.2\text{mm} < \Phi \leq 0.5\text{mm}$	3
		$\Phi > 0.5\text{mm}$	Reject
8.3.4.5	Scratch on printing area	Size (mm)	Acceptable Q'ty
		$W \leq 0.03\text{mm}, L \leq 5\text{mm}$	Ignore
		$0.03\text{mm} < W \leq 0.05\text{mm}, L \leq 5\text{mm}$	3
		$W > 0.05\text{mm}$ or $L > 5\text{mm}$	Reject
8.3.4.6	Corner chipping		
		Size(mm)	Judgement
		$X \leq 2\text{mm}, Y \leq 2\text{mm}$ $Z < 1/2T$ (T= single glass thickness)	Accept

File NO.

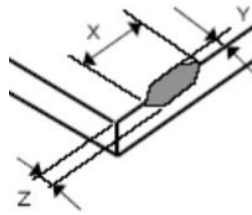
REV

A/01

<http://www.yes-display.com>

8.3.4.7

Edge chipping



Size(mm)	Judgement
$X \leq 3 \text{ mm}, Y \leq 3 \text{ mm}$ $Z \leq 1/2 T$ (T= single glass thickness)	Accept

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9. Reliability Test Conditions and Methods

9.1 Reliability Test Conditions and Methods:

NO.	TEST ITEMS	TEST CONDITION	INSPECTION AFTER TEST
①	High Temperature Storage	80°C±2°C×96Hours	Inspection after 2~4hours storage at room temperature, the samples should be free from defects: 1, Air bubble in the LCD. 2, Seal leak. 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 characteristic requirements shall be satisfied.
②	Low Temperature Storage	-30°C±2°C×96Hours	
③	High Temperature Operating	70°C±2°C×96Hours	
④	Low Temperature Operating	-20°C±2°C×96Hours	
⑤	Temperature Cycle(Storage)	-20°C ↔ 25°C ↔ 70°C (30min) ← (5min) → (30min) 1cycle Total 10cycle	
⑥	Damp Proof Test (Storage)	50°C±5°C×90%RH×96Hours	
⑦	Vibration Test	Frequency:10Hz~55Hz~10Hz Amplitude:1.5MM X,Y,Z direction for total 3hours (packing condition test will be tested by a carton)	
⑧	Drooping Test	Drop to the ground from 1M height one time every side of carton. (packing condition test will be tested by a carton)	
⑨	ESD Test	Voltage:±8KV,R:330Ω,C:150PF,Air Mode,10times	

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REMARK:

- 1, The Test samples should be applied to only one test item.
- 2, Sample side for each test item is 5~10pcs.
- 3, For Damp Proof Test, Pure water(Resistance > 10MΩ) should be used.
- 4, In case of malfunction defect caused by ESD damage, if it would be recovered to normal state after resetting, it would be judge as a good part.
- 5, EL evaluation should be accepted from reliability test with humidity and temperature: Some defects such as black spot/blemish can happen by natural chemical reaction with humidity and Fluorescence EL has.
- 6, Failure Judgment Criterion: Basic Specification Electrical Characteristic, Mechanical Characteristic, Optical Characteristic.

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10. Cautions and Handling Precautions

10.1 Mounting method

The LCD panel of TFT module consists of two thin glass plates with polarizes which easily be damaged. And since the module in 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 happen 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 power or ground, do not input any signals before power is turned on, and ground your body, work/assembly areas, and assembly equipment to protect against static electricity.

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10.4 packing

- Module employs 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 how 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.
- 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 storing

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

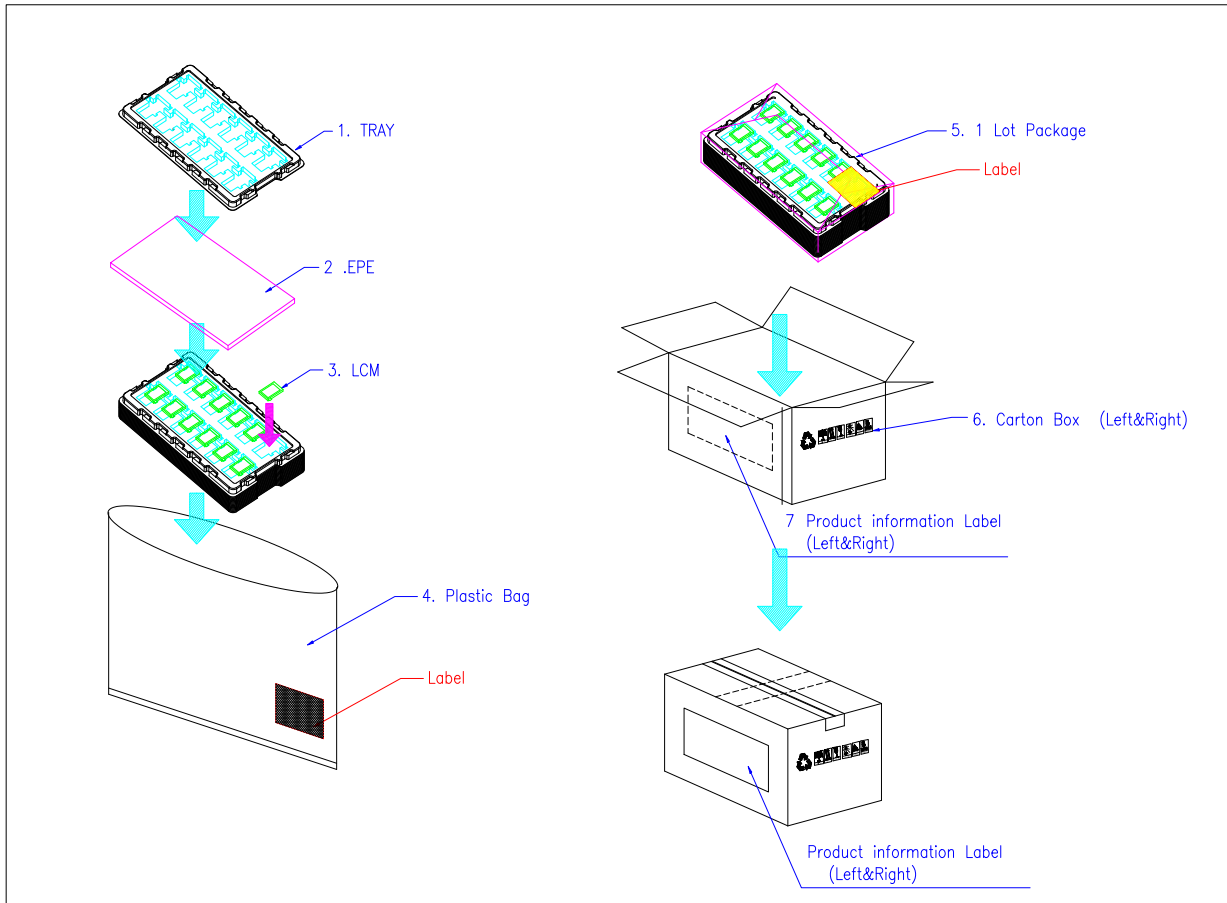
- It is recommendable to crash damaged or unnecessary LCD's into pieces and wash off liquid crystal by either of solvents such as acetone and ethanol, which should be burned up later.

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- 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. Packing Method

11.1 Method



11.2 Packing Label

TBD