Inelco Hunter Limited

specialist supplier of electronic components & solutions

SPECIFICATIONS

CUSTOMER	:	**-**
SAMPLE CODE	:	**SJXT480272T017-ZBC06**
MASS PRODUCTION CODE	:	**JXT480272T017-ZBC06**
SAMPLE VERSION	:	**01**
SPECIFICATIONS EDITION	:	**001**
DRAWING NO. (Ver.)	:	**LMD-JXT480272T017-ZBC06 (Ver.001)**
PACKAGING NO. (Ver.)	:	**-**

Customer Approved

Date:

INELCO HUNTER
2025.05.20
UK/TW RD MAY

Approved	Checked	Designer
Rex Liao	**Howard Chen**	**Yantong Su**

■ Preliminary specification for design input

☐ Specification for sample approval

History of Version

Date (mm / dd / yyyy)	Ver.	Edi.	Description	Page	Design by
03/10/2025	01	001	Preliminary.	-	Yantong

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Contents

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1. SPECIFICATIONS

1.1 Features

Item	Standard Value
Display Type	480 * 3 (RGB) * 272 Dots
LCD Type	Full Viewing Angle , Normally Black , Transmissive type
Screen size(inch)	4.3” inch
Color configuration	R,G, B vertical stripe
Weight	-
Display Interface	Digital 24-bits RGB
Driver IC	ST7282A-G6-E8A
ROHS	THIS PRODUCT CONFORMS TO ROHS

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	115.1(W) x 78.94(L) x 5.15(H)	mm

LCD panel

Item	Standard Value	Unit
Active Area	95.04 (W) x 53.856 (L)	mm

Note : For detailed information please refer to LCM drawing

1.3 Absolute Maximum Ratings

Item	Symbol	Condition	Min.	Max.	Unit
System Power Supply Voltage	VDD	GND=0	-0.5	+4.6	V
Operating Temperature	T_{OP} (Ts)	Note 1	-20	+70	°C
Storage Temperature	T_{ST} (Ta)	Note 2	-30	+80	°C
Storage Humidity	H_D	Ta ≦ 60 °C	-	90	%RH

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

Note 1：Ts is the temperature of panel's surface.

Note 2：Ta is the ambient temperature of samples.

1.4 DC Electrical Characteristics

GND = 0V, Ta = 25°C

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Power supply Voltage	VDD	-	3.0	3.3	3.6	V
"H" Input Voltage	V_{IH}	-	0.7*VDD	-	VDD	V
"L" Input Voltage	V_{IL}	-	GND	-	0.3* VDD	V
Supply Current	IDD	VDD=3.3V	-	25	35	mA

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1.5 Optical Characteristics

VDD =3.3V, Ta=25°C

Item		Symbol	Condition	Min.	Typ.	Max.	unit	
Response time		Tr + Tf	Ta = 25°C θX, θY = 0°	-	40	60	ms	Note2
Viewing angle	Top	θY+	CR ≥ 10	-	80	-	Deg.	Note4
	Bottom	θY-		-	80	-		
	Left	θX-		-	80	-		
	Right	θX+		-	80	-		
Contrast ratio		CR	Ta = 25°C θX , θY = 0°	500	600	-	-	-
Color of CIE Coordinate	White	X		-	(0.32)	-	-	Note1
		Y		-	(0.36)	-		
	Red	X		-	(0.58)	-		
		Y		-	(0.33)	-		
	Green	X		-	(0.34)	-		
		Y		-	(0.62)	-		
	Blue	X		-	(0.13)	-		
		Y		-	(0.13)	-		
Average Brightness (With LCD) *2		IV	IF= 20mA	-	(320)	-	cd/m^2	Note1
Uniformity (With LCD) *1		△ B	IF= 20mA	70	-	-	%	Note1

Note1:

1：△ B=B(min) / B(max) × 100%

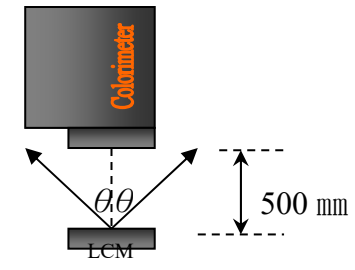
2：Measurement Condition for Optical Characteristics:

a：Environment: 25℃±5℃ / 60±20%R.H，no wind，dark room below 10 Lux at typical lamp current and typical operating frequency.

b：Measurement Distance: 500 ± 50 ㎜ ，(θ= 0°)

c：Equipment: TOPCON BM-7 fast，(field 1°)，after 10 minutes operation.

d：The uncertainty of the C.I.E coordinate measurement ±0.01，Average Brightness ± 4%

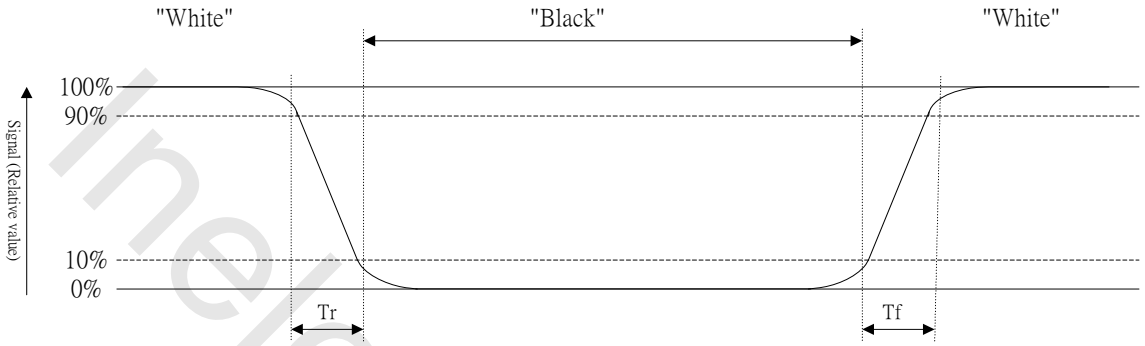


Colorimeter=BM-7 fast

Note2: Definition of response time:

The output signals of photo detector are measured when the input signals are changed from “black” to “white”(falling time) and from “white” to “black”(rising time), respectively. The response time is defined as the time interval between the 10% and 90% of Amplitudes.

Refer to figure as below:



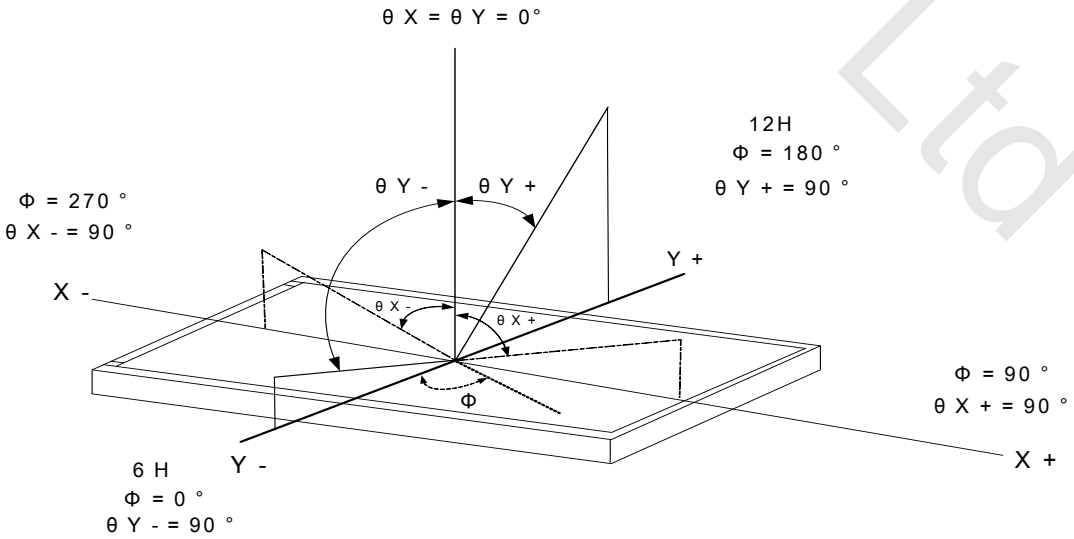
Note3: Definition of contrast ratio:

Contrast ratio is calculated with the following formula

$$\text{Contrast ratio (CR)} = \frac{\text{Photo detector output when LCD is at “White” state}}{\text{Photo detector output when LCD is at “Black” state}}$$

Note4: Definition of viewing angle:

Refer to figure as below:



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1.6 Backlight Characteristics

Maximum Ratings

Item	Symbol	Conditions	Min.	Max.	Unit
LED Forward Current	IF	Ta =25℃	-	-	mA
LED Reverse Voltage	VR	Ta =25℃	-	-	V
Power Dissipation	PD	Ta =25℃	-	-	mW

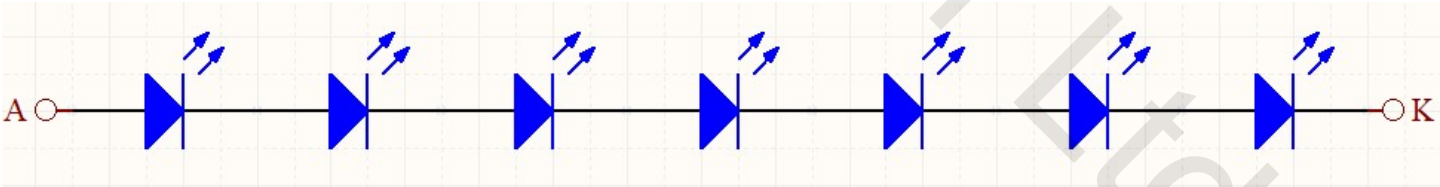
Electrical / Optical Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit	Remark
Forward Voltage	VF	IF=20mA	-	(21.0)	-	V	Note1
Average Brightness (Without LCD)	IV		-	(7500)	-	cd/m^2	-
CIE Color Coordinate (Without LCD)	X		-	(0.29)	-	-	-
	Y		-	(0.29)	-		
Color	White						

Note 1: The LED Supply Voltage is defined by the number of LED at Ta=25℃ and IL =20 mA .

Note 2: The “LED life time” is defined as the module brightness decrease to 50% original brightness at Ta=25℃ and IL =20 mA. The LED life time could be decreased if operating IL is larger than 20 mA.

Internal Circuit Diagram



Other Description

Item	Conditions	Description
Life Time* Note 2	Ta =25℃ IF= 20mA	30,000 hrs

1.7 Touch Panel Characteristics

1.7.1 Features

Item	Standard Value
Touch Panel Size	4.3”
Touch type	Projective capacitive touch panel
Input Method	Finger or Conductive Pen
Support Operation	5 Points touch
Firmware Ver	-
Output Interface	I2C
IC	FT5446U

1.7.2 I²C Address

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
0	1	1	1	0	0	0	**R/W**

1.7.3 Absolute Maximum Ratings

Item	Symbol	Condition	Min.	Max.	unit
Operating Temperature	T_{OP}	-	-20	+70	°C
Storage Temperature	T_{ST}	-	-30	+80	°C

1.7.4 DC Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	unit
Power Supply Voltage	TPVDD	-	-	3.3	-	V

1.7.5 Optical Characteristics

Item	Standard Value	unit
Total light transmittance	85% or more	-
Hardness Of Surface	⩾7H	-

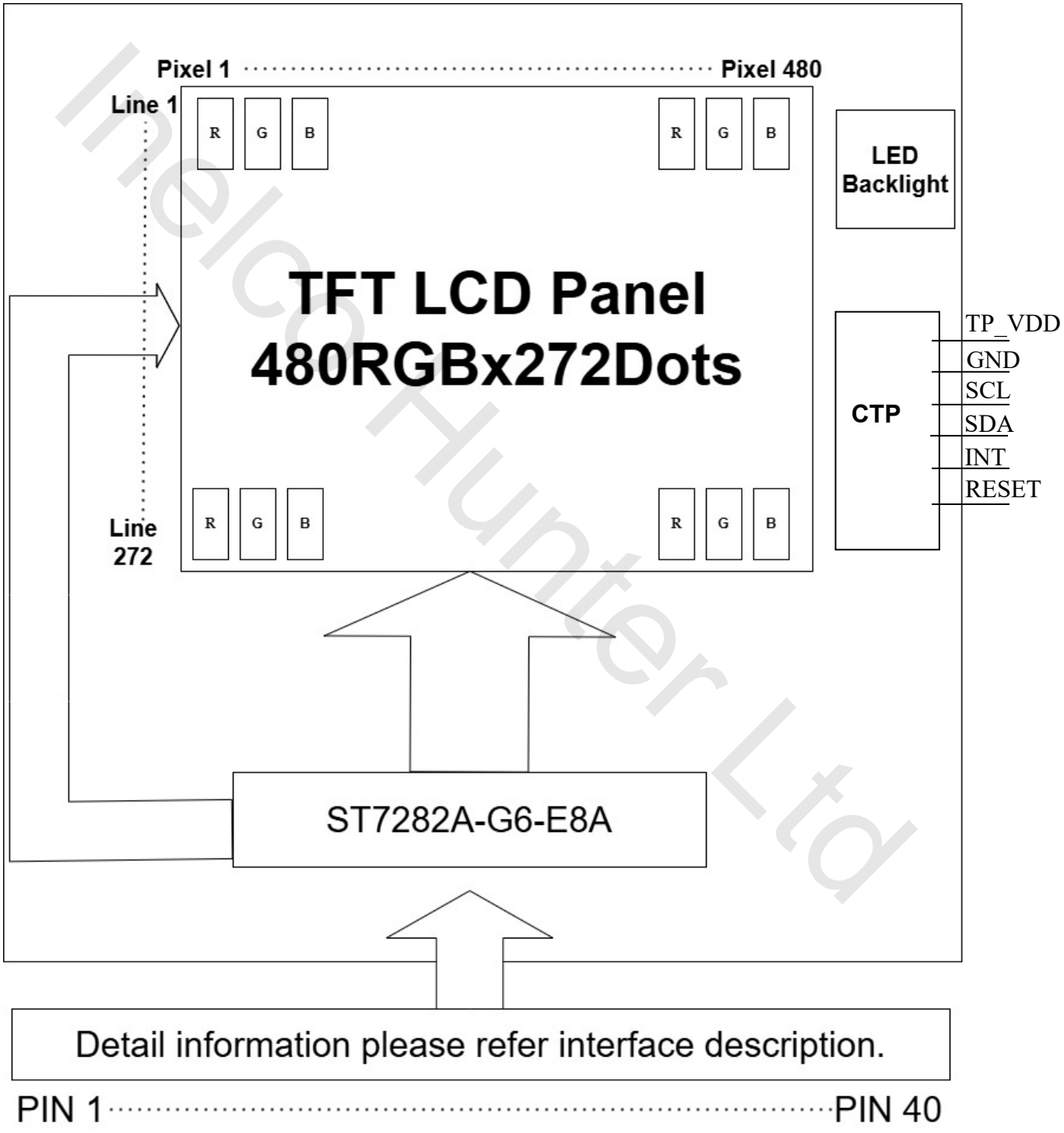
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

2.1.2 Block Diagram



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2.2 Interface Pin Description

Pin No.	Symbol	Function
1	K	Power supply for LED Backlight cathode input
2	A	Power supply for LED Backlight anode input
3	GND	Ground
4	VDD	Digital power
5	DR0	Red data bit 0
6	DR1	Red data bit 1
7	DR2	Red data bit 2
8	DR3	Red data bit 3
9	DR4	Red data bit 4
10	DR5	Red data bit 5
11	DR6	Red data bit 6
12	DR7	Red data bit 7
13	DG0	Green data bit 0
14	DG1	Green data bit 1
15	DG2	Green data bit 2
16	DG3	Green data bit 3
17	DG4	Green data bit 4
18	DG5	Green data bit 5
19	DG6	Green data bit 6
20	DG7	Green data bit 7
21	DB0	Blue data bit 0
22	DB1	Blue data bit 1
23	DB2	Blue data bit 2
24	DB3	Blue data bit 3
25	DB4	Blue data bit 4
26	DB5	Blue data bit 5
27	DB6	Blue data bit 6
28	DB7	Blue data bit 7

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29	GND	Ground
30	DCLK	Dot data clock. DCLK polarity: negative
31	DISP	Display control / standby mode selection “High” : Normal display
32	HSYNC	Horizontal sync input. HSYNC polarity: negative.
33	VSYNC	Vertical sync input. VSYNC polarity: negative
34	DE	Data input enable. Active High to enable the data input
35	NC	Not Connection
36	GND	Ground
37	NC	Not Connection
38	NC	Not Connection
39	NC	Not Connection
40	NC	Not Connection

CTP interface

Pin No.	Symbol	Function
1	TP_VDD	Power supply for CTP
2	GND	Ground
3	SCL	I2C Clock.
4	SDA	I2C Data.
5	INT	The interrupt from the CTP to the Host H: CTP interrupt not requested L: CTP request interrupt
6	RESET	RESET pin for CTP

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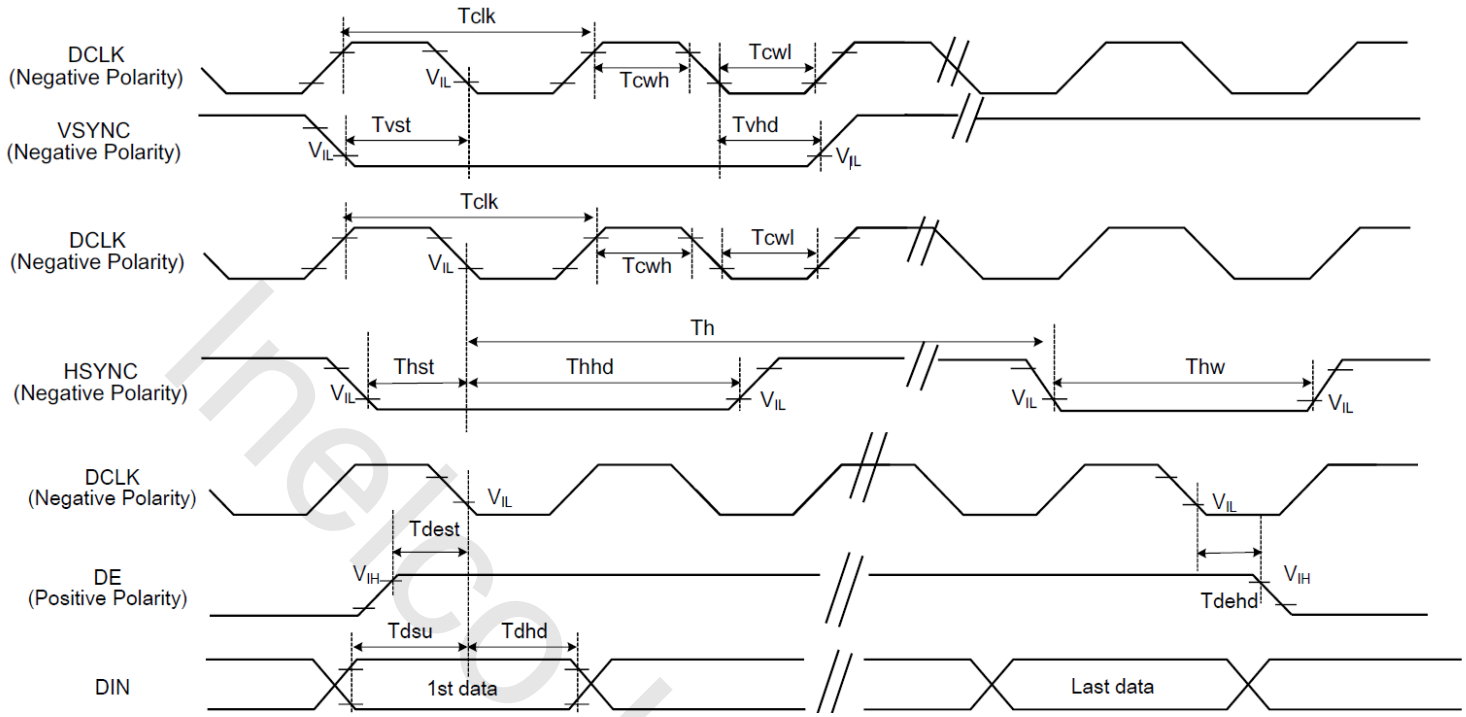
2.3 Timing Characteristics

2.3.1 Clock and Data Input Timing Diagram



Parameters	Symbol	Spec			Unit	Conditions
		Min.	Typ.	Max.		
CLK pulse duty	Tcw	40	50	60	%	
Hsync width	Thw	2	-	-	DCLK	
HSYNC period	Th	55	60	65	us	
VSYNC setup time	Tvst	12	--	--	ns	
VSYNC hold time	Tvhd	12	--	--	ns	
HSYNC setup time	Thst	12	--	--	ns	
HSYNC hold time	Thhd	12	--	--	ns	
Data setup time	Tdsu	12	--	--	ns	
Data hold time	Tdhd	12	--	--	ns	
DE setup time	Tdest	10	--	--	ns	
DE hold time	Tdehd	10	--	--	ns	

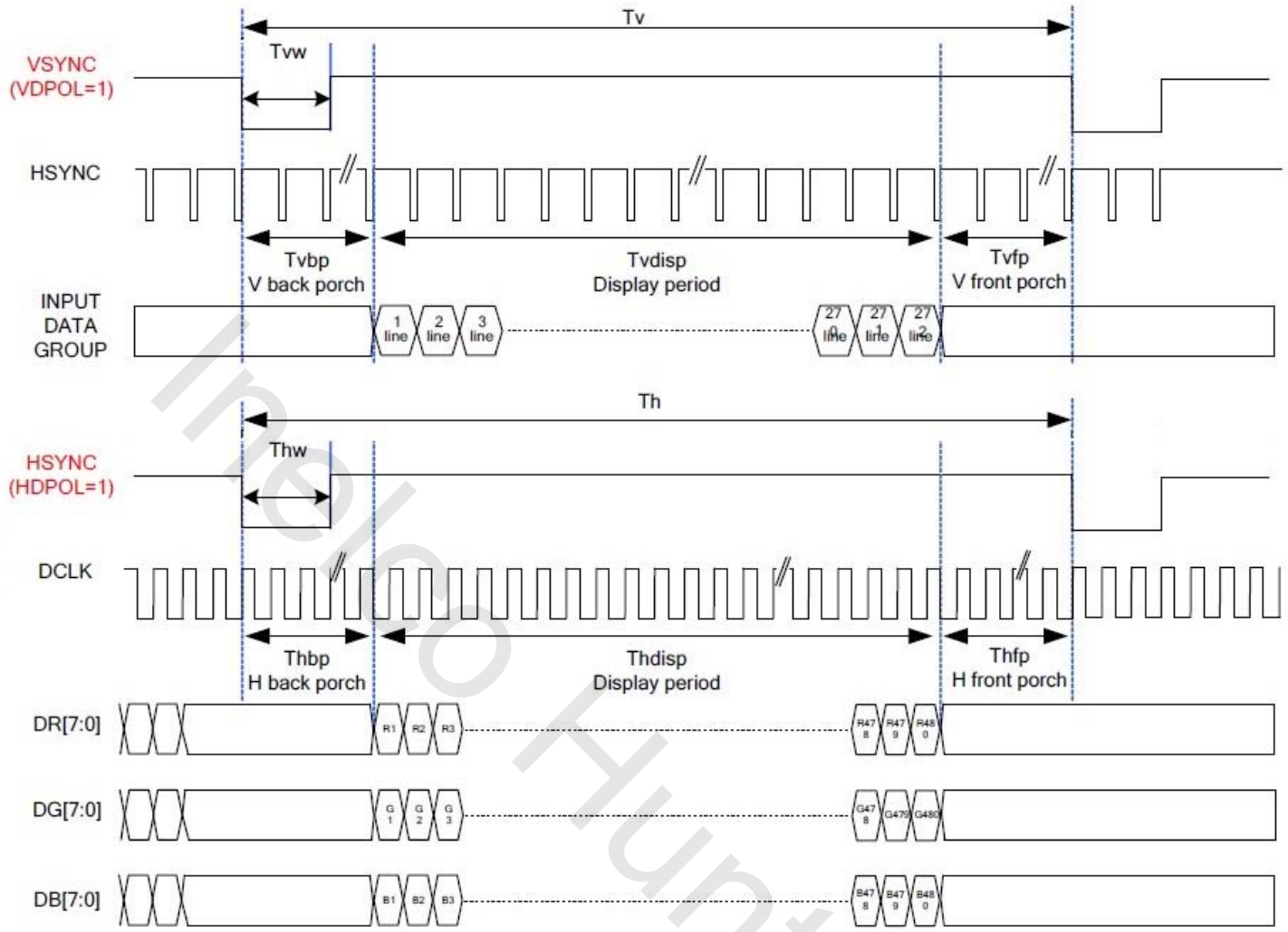
Parallel 24-bit RGB Input Timing Table

Parameters		Symbol	Value			Unit
			Min.	Typ.	Max.	
DCLK frequency		Fclk	8	9	12	MHz
DCLK Period		Tclk	83	111	125	nS
HSYNC	Period Time	Th	485	531	598	DCLK
	Display Period	Thdisp	-	480	-	DCLK
	Back Porch	Thbp	3	43	43	DCLK
	Front Porch	Thfp	2	8	75	DCLK
	Pulse Width	Thw	2	4	75	DCLK
VSYNC	Period Time	Tvdisp	276	292	321	H
	Display Period	Tvbp	-	272	-	H
	Back Porch	Tvfp	2	12	12	H
	Front Porch	Tvw	2	8	37	H
	Pulse Width	Tvdisp	2	4	37	H

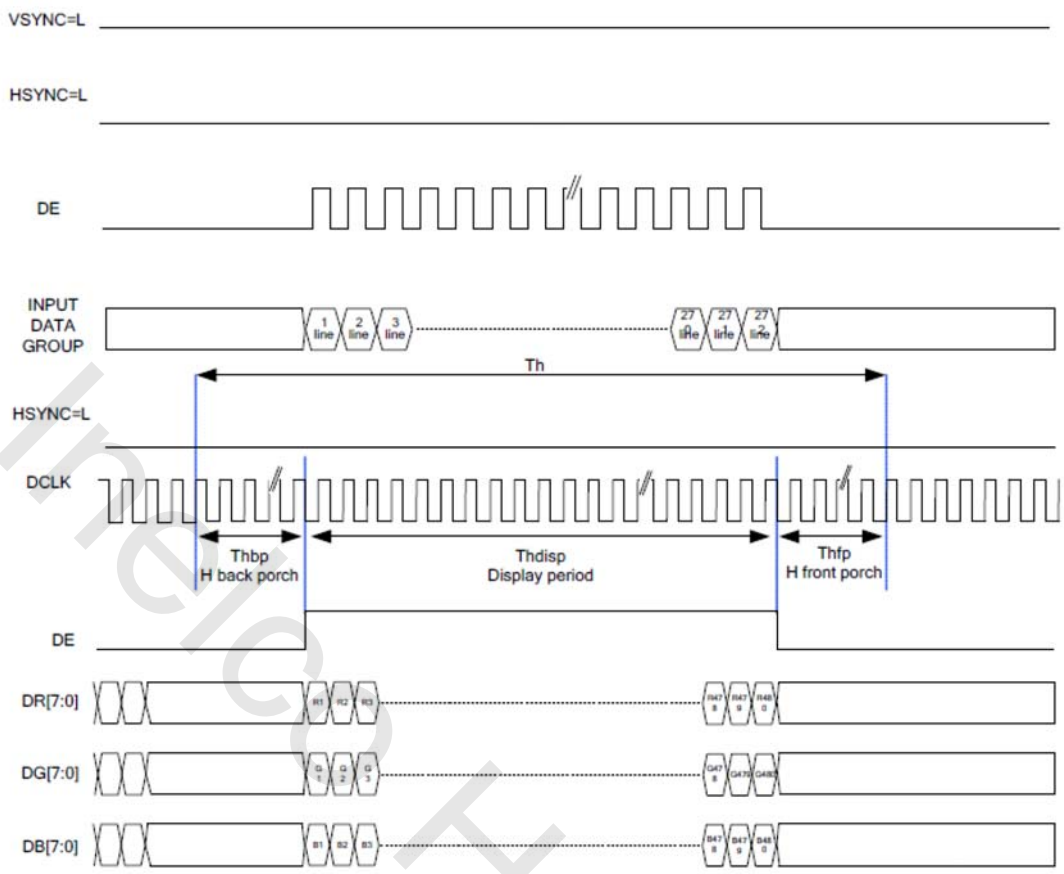
RGB Mode Selection Table

RGB Mode Selection Table	DCLK	HSYNC	VSYNC	DE
SYNC - DE Mode	Input	Input	Input	Input
SYNC Mode	Input	Input	Input	GND
DE Mode	Input	GND	GND	Input

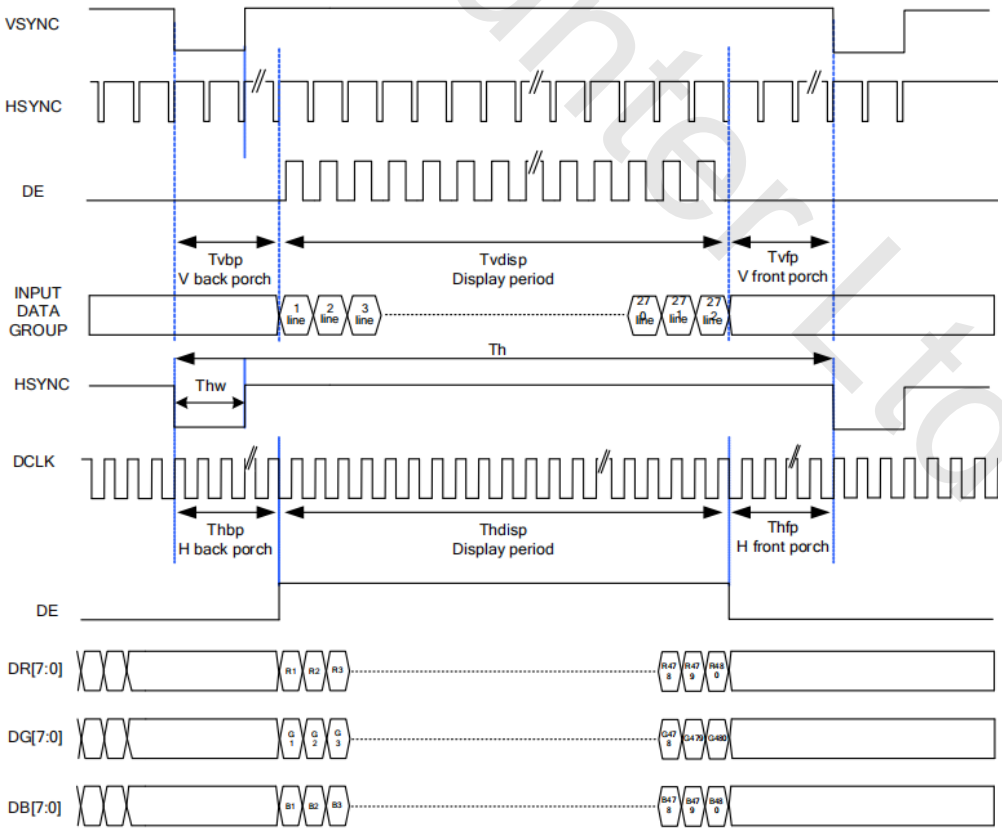
Note: “Input” means these signals are driven by host side



SYNC Mode Timing Diagram



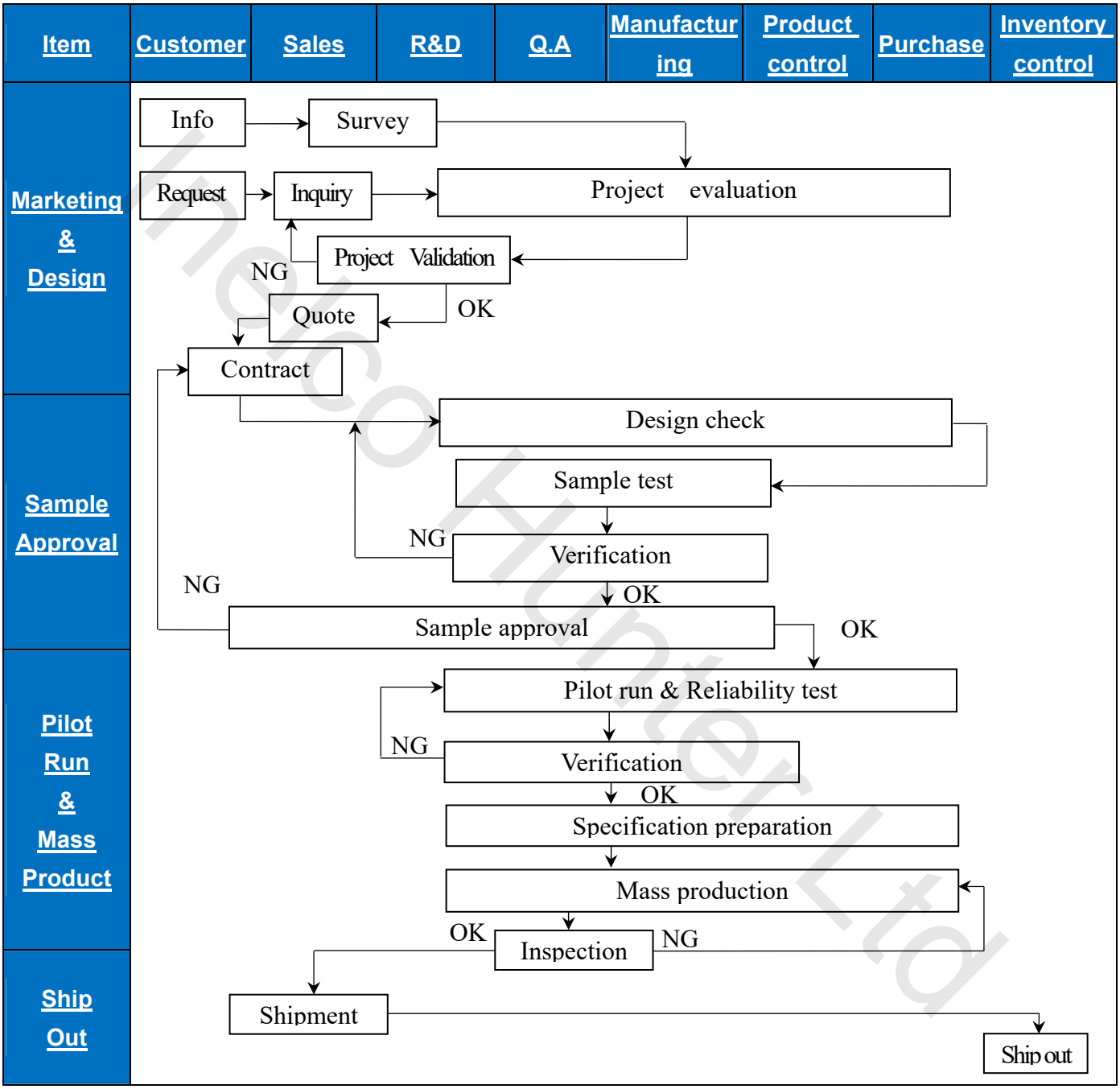
DE Mode Timing Diagram



SYNC-DE Mode Timing Diagram

3. QUALITY ASSURANCE SYSTEM

3.1 Quality Assurance Flow Chart



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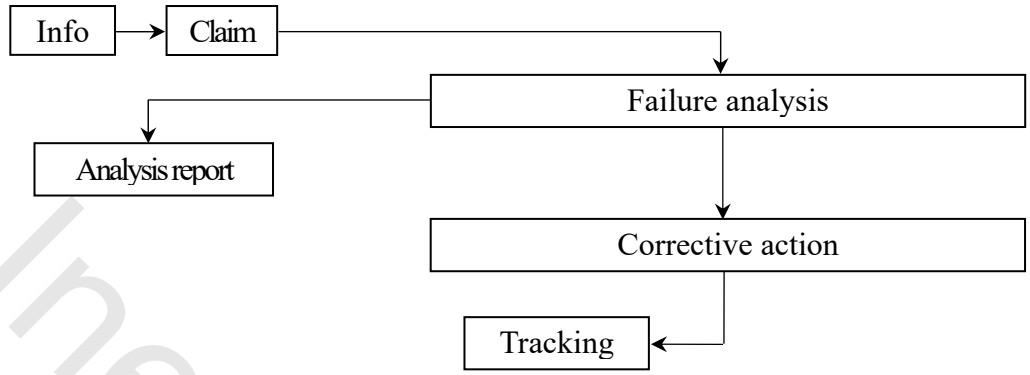
Item	Customer	Sales	R&D	Q.A	Manufacturing	Product control	Purchase	Inventory control
Sales Service								
Q.A Activity	1. ISO 9001 Maintenance Activities 3. Equipment calibration 5. Standardisation Management				2. Process improvement proposal 4. Education and Training Activities			

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3.2 Inspection Specification

◆Scope: The document shall be applied to TFT-LCD Module for 3.5”-20〞 (Ver.B01).

◆Inspection Standard: MIL-STD-105E Table Normal Inspection Single Sampling Level Ⅱ.

◆Equipment: Gauge, MIL-STD, IHL Tester, Sample

◆Defect Level: Major Defect AQL: 0.4; Minor Defect AQL: 1.5

◆OUT Going Defect Level: Sampling.

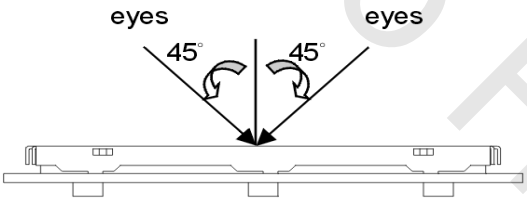
◆Standard of the product appearance test:

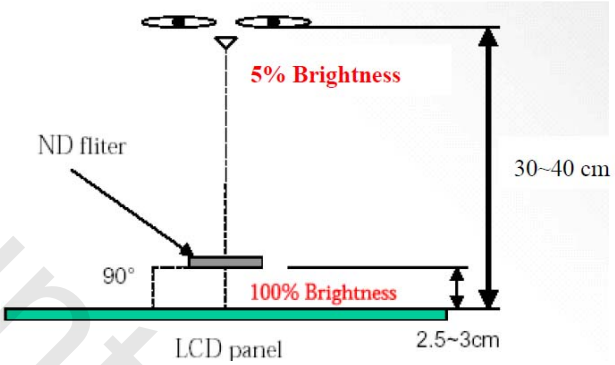
a. Manner of appearance test:

(1). The test best be under 20W×2 fluorescent light(about 300lux ～500lux)

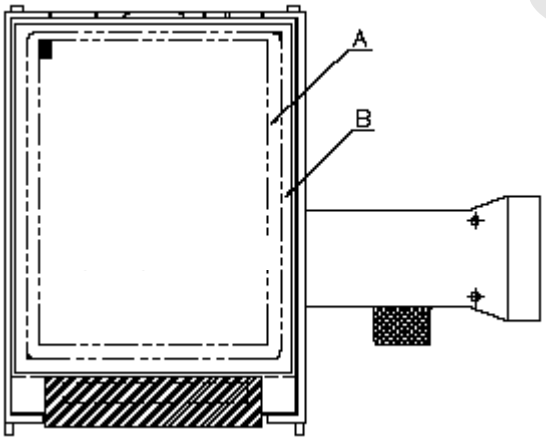
, and distance of view must be at 30~40 cm.

(2). The test direction is base on about around 45˚ of vertical line.





(3). Definition of area.



A area: viewing area

B area: Outside of viewing area

(4). Standard of inspection： (Unit：mm)

◆Specification for TFT-LCD Module 3.5”~20”: (Ver.B01)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="3">01</td><td rowspan="3">Product condition</td><td>1.1The part number is inconsistent with work order of production.</td><td>Major</td></tr>
<tr><td>1.2 Mixed product types.</td><td>Major</td></tr>
<tr><td>1.3 Assembled in inverse direction.</td><td>Major</td></tr>
<tr><td>02</td><td>Quantity</td><td>2.1 The quantity is inconsistent with work order of production.</td><td>Major</td></tr>
<tr><td>03</td><td>Outline dimension</td><td>3.1 Product dimension and structure must conform to structure diagram.</td><td>Major</td></tr>
<tr><td rowspan="6">04</td><td rowspan="6">Electrical Testing</td><td>4.1 Missing line character and icon.</td><td>Major</td></tr>
<tr><td>4.2 No function or no display.</td><td>Major</td></tr>
<tr><td>4.3 Display malfunction.</td><td>Major</td></tr>
<tr><td>4.4 LCD viewing angle defect.</td><td>Major</td></tr>
<tr><td>4.5 Current consumption exceeds product specifications.</td><td>Major</td></tr>
<tr><td>4.6Mura cannot be seen through 5% ND filter at 50% Gray , should be judged by the viewing angle of 90 degree.</td><td>Minor</td></tr>
<tr><td>05</td><td>Dot defect

(Bright dot, Dark dot)

On -display</td><td>
<table>
<tr><th colspan="2">Item</th><th>Acceptance (Q’ty)</th></tr>
<tr><td rowspan="4">Dot Defect</td><td>Bright Dot</td><td>≦ 4</td></tr>
<tr><td>Dark Dot</td><td>≦ 5</td></tr>
<tr><td>Joint Dot</td><td>≦ 3</td></tr>
<tr><td>Total</td><td>≦ 7</td></tr>
</table>
5.1 Inspection pattern: full white, full black, Red, Green and blue screens.
5.2 It is defined as dot defect if defect area ＞1/2 dot.
5.3 The distance between two dot defect ≧5 mm.
5.4 Bright dot : Dots appear bright and unchanged in visible with 5% ND filter is defined.
5.5 Tiny bright dot: bright dot area ≦1/2 dot.
a. Dots appear bright and unchanged in visible with 5% ND filter is defined defect and is judged in accordance with 6.1
b. Dots invisible with 5% ND Filter is Ignored.
</td><td>Minor</td></tr>
</table>

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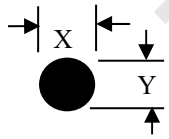
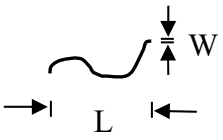
◆Specification for TFT-LCD Module 3.5″ ~20″ : (Ver.B01)

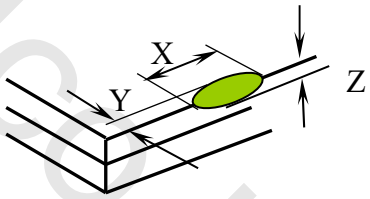
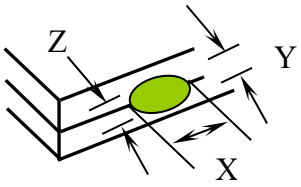
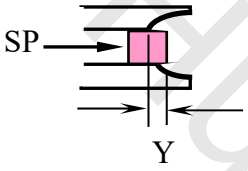
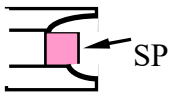
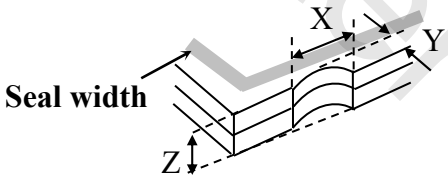
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td>06</td><td>Black or white Dot, scratch, contamination

Round type
 

Φ= (x+y) / 2

Line type
 
</td><td>
6.1 Round type (Non-display or display):
<table>
<tr><th rowspan="2">Dimension (diameter: Φ)</th><th colspan="2">Acceptance (Q'ty)</th></tr>
<tr><th>A area</th><th>B area</th></tr>
<tr><td>Φ ≦ 0.25</td><td>Ignore</td><td rowspan="4">Ignore</td></tr>
<tr><td>0.25 ＜ Φ ≦ 0.50</td><td>5</td></tr>
<tr><td>Φ ＞ 0.50</td><td>0</td></tr>
<tr><td>Total</td><td>5</td></tr>
</table>
6.2 Line type(Non-display or display):
<table>
<tr><th rowspan="2">module size</th><th rowspan="2">Length (L)</th><th rowspan="2">Width (W)</th><th colspan="2">Acceptance (Q'ty)</th></tr>
<tr><th>A area</th><th>B area</th></tr>
<tr><td rowspan="5">3.5” to less 9”</td><td>---</td><td>W ≦ 0.03</td><td>Ignore</td><td rowspan="5">Ignore</td></tr>
<tr><td>L ≦10.0</td><td>0.03 ＜W ≦ 0.05</td><td>4</td></tr>
<tr><td>L ≦5.0</td><td>0.05 ＜W ≦ 0.10</td><td>2</td></tr>
<tr><td>---</td><td>W ＞0.10</td><td>As round type</td></tr>
<tr><td colspan="2">Total</td><td>5</td></tr>
<tr><td rowspan="4">9” to 20”</td><td>---</td><td>W ≦ 0.05</td><td>Ignore</td><td rowspan="4">Ignore</td></tr>
<tr><td>L ≦10.0</td><td>0.05 ＜W ≦ 0.10</td><td>5</td></tr>
<tr><td>---</td><td>W ＞ 0.10</td><td>As round type</td></tr>
<tr><td colspan="2">Total</td><td>5</td></tr>
</table>
</td><td>Minor</td></tr>
<tr><td>07</td><td>Polarizer Bubble</td><td>
<table>
<tr><th rowspan="2">Dimension (diameter: Φ)</th><th colspan="2">Acceptance (Q'ty)</th></tr>
<tr><th>A area</th><th>B area</th></tr>
<tr><td>Φ ≦ 0.25</td><td>Ignore</td><td rowspan="5">Ignore</td></tr>
<tr><td>0.25 ＜ Φ ≦ 0.50</td><td>4</td></tr>
<tr><td>0.50 ＜ Φ ≦ 0.80</td><td>1</td></tr>
<tr><td>Φ ＞0.80</td><td>0</td></tr>
<tr><td>Total</td><td>5</td></tr>
</table>
</td><td>Minor</td></tr>
</table>

◆Specification for TFT-LCD Module 3.5″ ~20″ : (Ver.B01)

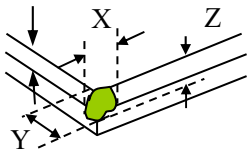
NO	Item	Criterion	Level
08	The crack of glass	Symbols : X: The length of crack Y: The width of crack. Z: The thickness of crack W: terminal length T: The thickness of glass a : LCD side length 8.1 General glass chip: 8.1.1 Chip on panel surface and crack between panels:    【OK】  【NG】  	Minor

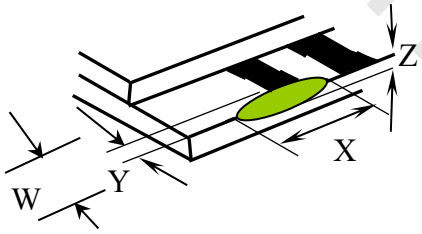
X	Y	Z
≦ a	Crack can't enter viewing area	≦1/2 t
≦a	Crack can't exceed the half of SP width.	1/2 t < Z ≦2 t

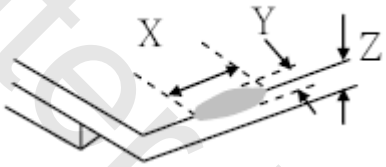
◆Specification for TFT-LCD Module 3.5″ ~20″ : (Ver.B01)

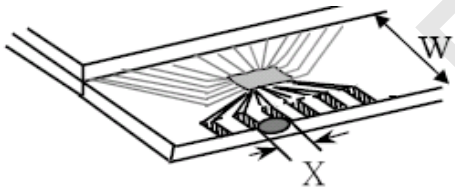
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="2">08</td><td rowspan="2">The crack of glass</td><td>
Symbols :

X: The length of crack Y: The width of crack.
Z: The thickness of crack W: terminal length
t: The thickness of glass a: LCD side length

8.1.2 Corner crack:


<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦1/5 a</td><td>Crack can't enter viewing area</td><td>Z ≦ 1/2 t</td></tr>
<tr><td>≦1/5 a</td><td>Crack can't exceed the half of SP width.</td><td>1/2 t < Z ≦ 2 t</td></tr>
</table>
</td><td rowspan="2">Minor</td></tr>
<tr><td>
8.2 Protrusion over terminal:
8.2.1 Chip on electrode pad:




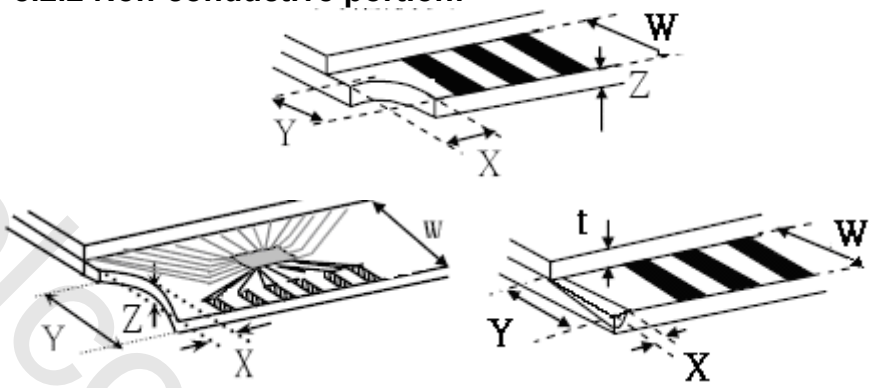


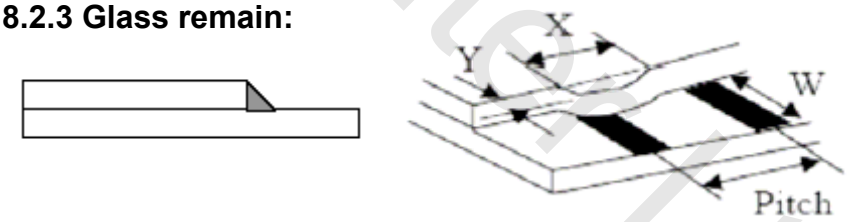
<table>
<tr><th></th><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>Front</td><td>≦ a</td><td>≦ 1/2 W</td><td>≦ t</td></tr>
<tr><td>Back</td><td>≦ a</td><td>≦ W</td><td>≦ 1/2 t</td></tr>
</table>
</td></tr>
</table>

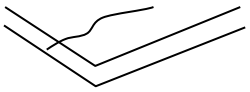
◆Specification for TFT-LCD Module 3.5″ ~20″ : (Ver.B01)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td>08</td><td>The crack of glass</td><td>
Symbols:

X: The length of crack Y: The width of crack.
Z: The thickness of crack W: terminal length
t: The thickness of glass a: LCD side length

8.2.2 Non-conductive portion:


<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦ 1/3 a</td><td>≦ W</td><td>≦t</td></tr>
</table>
⊙ If the chipped area touches the ITO terminal, over 2/3 of the ITO must remain and be inspected according to electrode terminal specifications
8.2.3 Glass remain:


<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦ a</td><td>≦ 1/3 W</td><td>≦t</td></tr>
</table>
8.2.4 Cracking:

Not Allowed
</td><td>Minor</td></tr>
</table>

◆Specification for TFT-LCD Module 3.5″ ~20″ : (Ver.B01)

NO	Item	Criterion	Level
09	Backlight elements	9.1 Backlight can't work normally.	Major
		9.2 Backlight doesn't light or colour is wrong.	Major
		9.3 Illumination source flickers when lit.	Major
10	General appearance	10.1 Pin type, quantity, dimension must match type in structure diagram.	Major
		10.2 No short circuits in components on PCB or FPC.	Major
		10.3 Parts on PCB or FPC must be: no wrong parts, missing parts or excess parts.	Major
		10.4 Product packaging must the same as specified on packaging specification sheet.	Minor
		10.5 The folding and peeled off in polariser are not acceptable.	Minor
		10.6 The PCB or FPC between B/L assembled distance(PCB or FPC) is ≦1.5 mm.	Minor

4. Reliability Test

4.1 Reliability Test Condition (Ver.B01)

NO.	TEST ITEM	TEST CONDITION
1	High Temperature Storage Test	Keep in 80 ±5℃ 240 hrs
2	Low Temperature Storage Test	Keep in -30 ±5℃ 240 hrs
3	High Temperature / High Humidity Storage Test	Keep in 60 ℃ / 90% R.H duration for 240 hrs (Excluding the polariser)
4	Temperature Cycling Storage Test	-30℃ → +25℃ → 80℃ → +25℃ (30mins) (5mins) (30mins) (5mins) 20 Cycle
5	ESD Test	Air Discharge: Apply 2 KV with 5 times Discharge for each polarity +/- Contact Discharge: Apply 250 V with 5 times discharge for each polarity +/- 1. Temperature ambiance: 15℃～35℃ 2. Humidity relative: 30%～60% 3. Energy Storage Capacitance(Cs+Cd): 150pF±10% 4. Discharge Resistance(Rd): 330Ω±10% 5. Discharge, mode of operation: Single Discharge (time between successive discharges at least 1 sec) (Tolerance if the output voltage indication: ±5%)
6	Vibration Test (Packaged)	1. Sine wave 10～55 Hz frequency (1 min/sweep) 2. The amplitude of vibration: 1.5 mm 3. Each direction (X, Y, Z) duration for 2 hrs
7	Drop Test (Packaged)	Packing Weight (Kg) / Drop Height (cm): 0 ~ 45.4 / 122; 45.4 ~ 90.8 / 76; 90.8 ~ 454 / 61; Over 454 / 46 Drop Direction :※1 corner / 3 edges / 6 sides each 1time

◎Result Evaluation Criteria :
Under the display quality test conditions with normal operations with normal operation state.
Do not change these conditions as such changes may affect practical display function.
(Normal operation state)
Temperature：+20~30°C
Humidity：50~70%
Atmospheric pressure：86~106Kpa

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5. PRECAUTION RELATING PRODUCT HANDLING

5.1 SAFETY

5.1.1 If the LCD panel breaks, be careful not to get the liquid crystal to touch your skin.

5.1.2 If the liquid crystal touches your skin or clothes, please wash it off immediately by using soap and water.

5.2 HANDLING

5.2.1 Avoid any strong mechanical shock which can break the glass.

5.2.2 Avoid static electricity which can damage the CMOS LSI—When working with the module, be sure to ground your body and any electrical equipment you may be using.

5.2.3 Do not remove the panel or frame from the module.

5.2.4 The polarizing plate of the display is very fragile. So, please handle it very carefully, do not touch, push or rub the exposed polarizing with anything harder than an HB pencil lead (glass, tweezers, etc.)

5.2.5 Do not wipe the polarizing plate with a dry cloth, as it may easily scratch the surface of plate.

5.2.6 Do not touch the display area with bare hands, this will stain the display area.

5.2.7 Do not use ketonic solvent or aromatic solvent. Use with a soft cloth soaked with a cleaning naphtha solvent.

5.2.8 To control temperature and time of soldering is 320 ± 10℃ and 3 ~ 5 sec.

5.2.9 To avoid liquid (include organic solvent) stained on LCM.

5.2.10 Caution! (LCM products with Capacitive Touch Panel)
Strong EMI-sources such as switch-mode power supplies (SPS) can lead to touch malfunction (e.g., ghost-touches). Therefore, the touch needs to be thoroughly tested inside the target application.

5.2.11 CAUTION: Continuously displaying same static image will result in high possibility of image sticking/image burn-in effect due to TFT panel characteristic.

5.2.12 Double-sided tape designed to be attached with the customer's mechanical device, please follow up the rules and regulations published by the original manufacturer of double-side tape for the attachment operation.

5.3 STORAGE

5.3.1 Store the panel or module in a dark place where the temperature is 25℃ ± 5℃ and the humidity is below 65% RH.

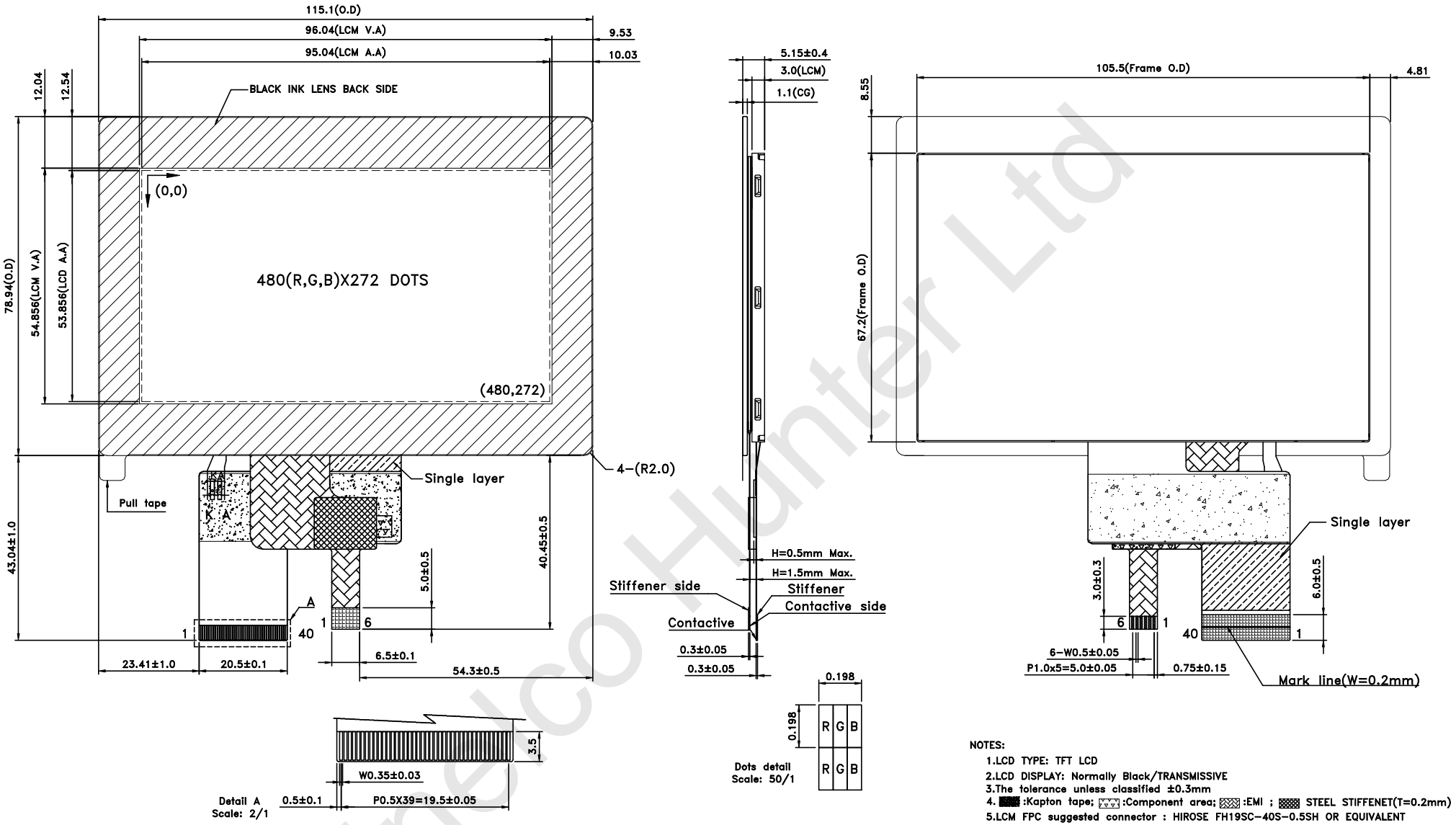
5.3.2 Do not place the module near organics solvents or corrosive gases.

5.3.3 Do not crush, shake, or jolt the module.

5.4 TERMS OF WARRANTY

5.4.1 Applicable warrant period
The period is within thirteen months since the date of shipping out under normal using and storage conditions.

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



NOTES:

1. LCD TYPE: TFT LCD
2. LCD DISPLAY: Normally Black/TRANSMISSIVE
3. The tolerance unless classified ±0.3mm
4. ■:Kapton tape; ▽▽:Component area; ▨:EMI ; ▩ STEEL STIFFENET(T=0.2mm)
5. LCM FPC suggested connector : HIROSE FH19SC-40S-0.5SH OR EQUIVALENT
6. TP FPC suggested connector : CviLus CF3161D0R0-10-NH OR EQUIVALENT

REV	REV BY	REVISER	DATE
007			
006			
005			
004			
003			
002			
001	NEW DRAWING	Joy	2025/03/10

PART NO: JXT480272T017-ZBC06

DRAWING NAME : LMD-JXT480272T017-ZBC06

TITLE: LCD MODULE DRAWING

Inelco Hunter Limited

Design	Joy Tseng	(3)	Surface		
Check	Tina Chen	Unit	MM	Material	
Approve	Bright Chiang	Scale	1:1	Thickness	
		Page	1/1	Quantity	

Length(Min) (mm) \ Tolerance \ Precision	Precision Level
1 ~ 4	-
4 ~ 16	-
16 ~ 63	-
63 ~ 250	-
250 ~ 1000	-

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