US Micro Products
ENGINEERED DISPLAY SOLUTIONS

TFT SPECIFICATION

Part Number	USMP-T101-102060NAS-A0
Size	10.1"
Resolution	1024 x 600
Brightness	500 cd/m²
Contrast	500:1
Viewing Angle	80/80/80/80
Operating Temp.	-30 ~ 85°C

FOR ADDITIONAL INFORMATION
PLEASE CONTACT:
engineering@usmicroproducts.com

Issue Date	Approved by (customer use)	Checked by	Prepared by

(800) 741-7755
www.usmicroproducts.com

History of Version

Date	Ver.	Edi.	Description	Page	Design by
12/20/2013	01	001	New Sample.	-	Ackey
01/20/2015	01	002	Add Label.	Appendix	Ackey

Total: 24 Page

Contents

1. SPECIFICATIONS

1.1 Features

Main LCD Panel

Item	Standard Value
Display Type	1024* (R、G、B) * 600 Dots
LCD Type	Normally white
Screen size(inch)	10.1(Diagonal)
Surface treatment	Anti-glare, Hard-Coating(3H)
Color configuration	R.G.B. vertical stripe
Backlight	White LED
Interface	LVDS

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	244.0(W) * 143.0 (L) * 12.4 (H)	mm

LCD panel

Item	Standard Value	Unit
Active Area	222.72 (W) * 125.28 (L)	mm

Note : For detailed information please refer to LCM drawing

1.3 Absolute Maximum Ratings

Module

Item	Symbol	Min.	Max.	Unit	
Supply Voltage	V_{IN}	-0.3	3.6	V	Logic power supply voltage
		-0.3	24	V	LED Driver Vin
Power Supply Fuse Current Setting	I_{FUSE}	-	1.5	A	Vin from 10%~90%,rise time 500us
Input Signal	V_S	-	3.6	V	LVDS signals
PWM Voltage	V_{PWM}	0.8	5.0	V	PWM Dimming Voltage
Operating Temperature	TOP	-30	85	°C	(1)
Operating Humidity	HOP	10	85	%RH	
Storage Temperature	TST	-30	85	°C	
Storage Humidity	HST	10	85	%RH	

Note:

(1) The storage /operating temperature. Maximum Wet-Bulb should be 39 degree C. There is no condensation on the panel surface.

1.4 DC Electrical Characteristics

System Power Supply

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Input Power Supply Voltage	V_{IN}	3.0	3.3	3.6	V	
Input Power Supply Current	I_{VIN}	-	-	191	mA	Black pattern 60Hz
Input Inrush Current	I_{RUSH}	-	-	1.5	A	0.5ms rise time(10%~90%)
Input Power Voltage Ripple	V_{RPL}	-	-	200	mV	V_{P-P}
REV	VH	2.0	3.3	5.0	V	-
	VL	-	-	0.8	V	-

LED Power Supply

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Input Power Supply Voltage	V_{LED-IN}	8	12	16	V	
Input Power Supply Current	I_{IN}	-	-	546	mA	
EN/PWM	VH	2.0	3.3	5.0	V	
	VL	-	-	0.8	V	

LVDS Signals

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Differential Input High Threshold	V_{th}	-	-	+100	mV	V_{cm}=+1.2v
Differential Input High Threshold	V_{tl}	-100	-	-	mV	V_{cm}=+1.2v
Magnitude Differential Input Voltage	$\|V_{id}\|$	200	-	600	mV	
Common Mode Voltage	V_{cm}	1.0	1.2	1.4	V	V_{th} - V_{tl} = 200mV
Common Mode Voltage Offset	$\triangle V_{cm}$	-50	-	+50	mV	V_{th} - V_{tl} = 200mV

1.5 Optical Characteristics

TFT LCD Panel VDD=3.3V, Ta=25°C

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	-
Response time		Tr + Tf	Ta = 25°C θX, θY = 0°	-	16	20	ms	Note2
Viewing angle	Top	θY+	CR ≥ 10	70	80	-	Deg.	Note4
	Bottom	θY-		70	80	-		
	Left	θX-		70	80	-		
	Right	θX+		70	80	-		
Contrast ratio		CR	Ta = 25°C θX , θY = 0°	400	500	-	-	Note3
Color of CIE Coordinate (With B/L)	White	X		0.255	0.305	0.355	-	Note1
		Y		0.275	0.325	0.375		
	Red	X		0.529	0.579	0.629		
		Y		0.294	0.344	0.394		
	Green	X		0.276	0.326	0.376		
		Y		0.541	0.591	0.641		
	Blue	X		0.109	0.159	0.209		
		Y		0.081	0.131	0.181		
Average Brightness Pattern=white display		IV	-	400	500	-	cd/m^2	Note1
Uniformity		△B		75	-	-	%	Note1

Note1:

1：△B=B(min) / B(max) ﾒ 100%

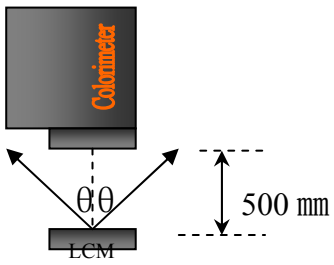
2：Measurement Condition for Optical Characteristics:

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%

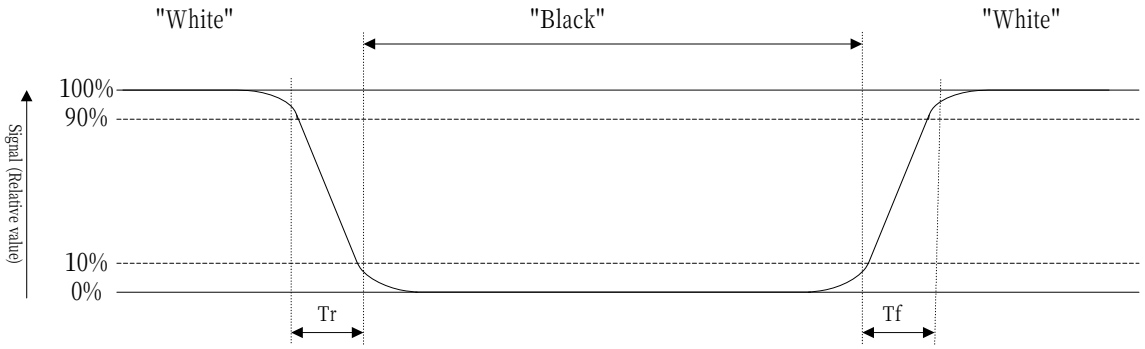


Colorimeter=BM-7 fast

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:



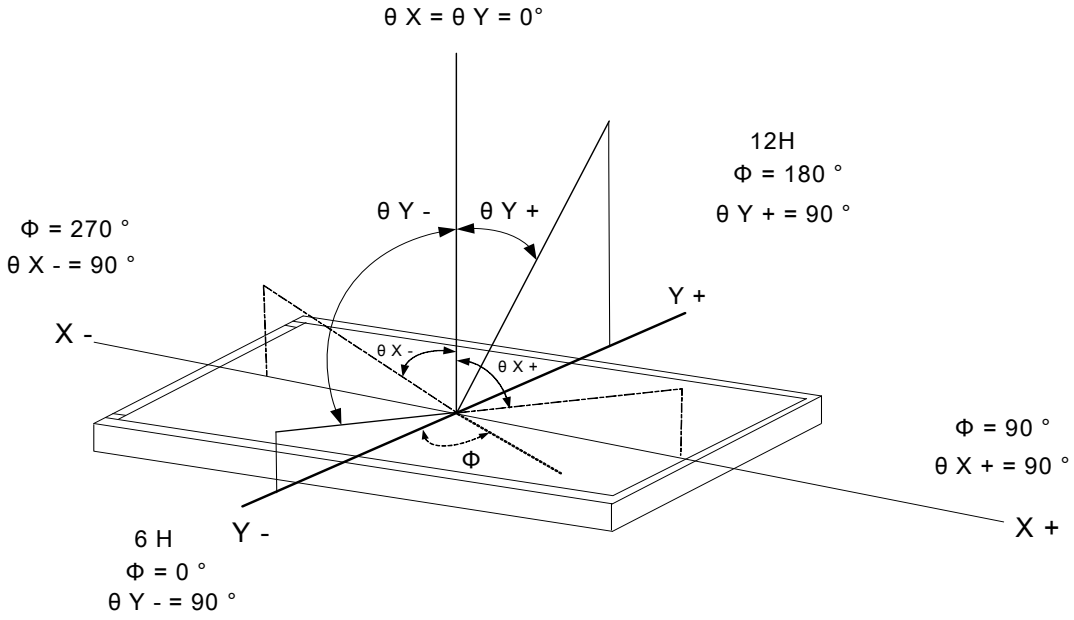
Note3: Definition of contrast ratio:

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:



1.6 Backlight Characteristics

Item		UNIT	MIN	TYP	MAX	CONDITION
VIN_LED		V	8	12	16	DUTY=100%
V_{VIN_LED}		mA	-	-	543	-
F_{DIM}		HZ	100	-	1K	-
DUTY		%	5	-	100	-
CTRL	VIH	V	2	3.3	5	-
	VIL	V	0	-	0.8	-
V_{OUT}		V	-	22.4	-	-
I_{OUT}		mA	-	160	-	-
L_T		Hours	50,000	-	-	LED Life Time

Note : The LED life time define as the estimated time to 50% degradation of initial luminous.

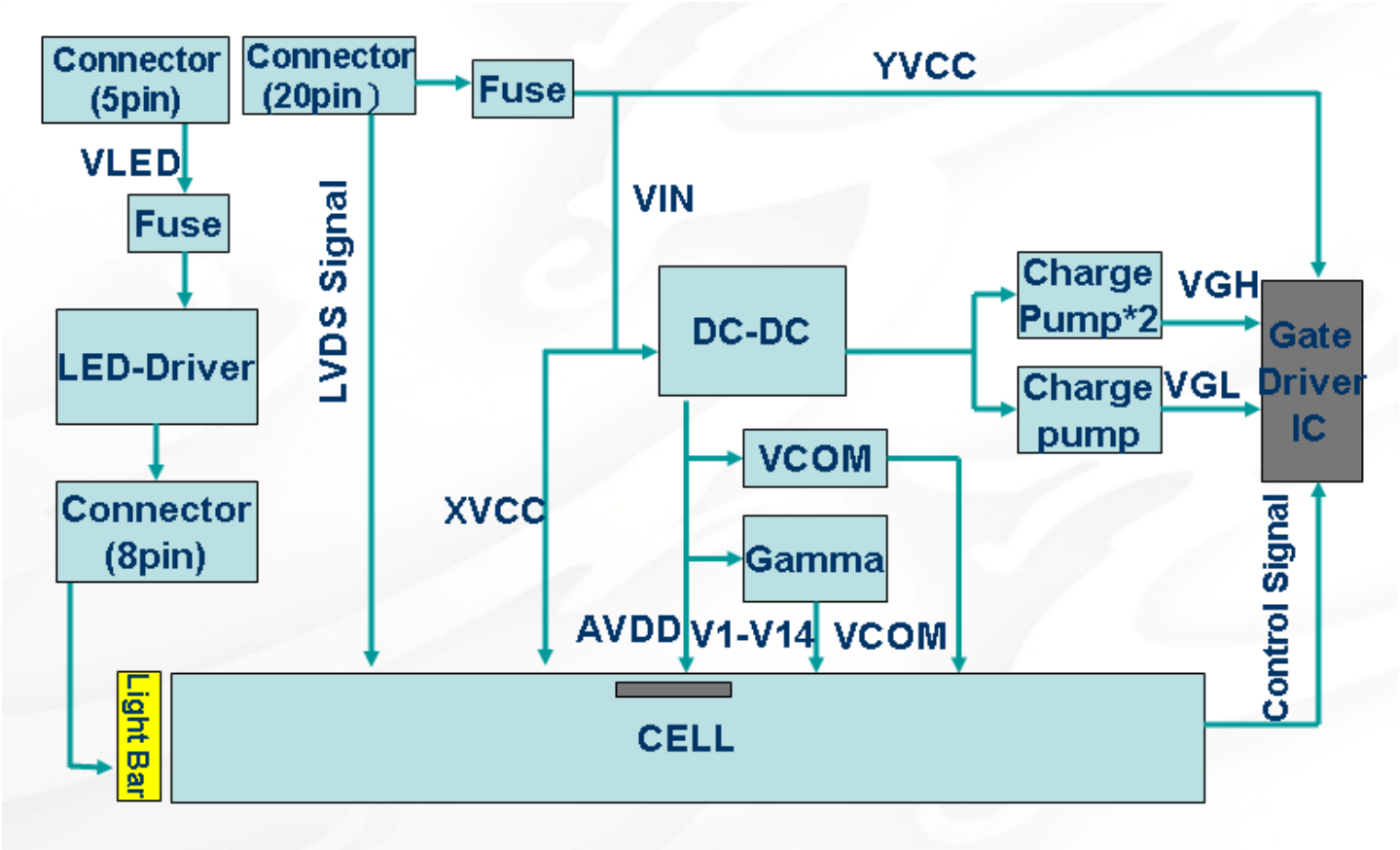
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

2.1.2 Block Diagram



2.2 Interface Pin Description(CN1)

Pin No.	Symbol	Description	
1	VDD	Power Supply.3.3V (typical)	-
2	VDD	Power Supply.3.3V (typical)	-
3	VSS	Ground.	-
4	REV	Reverse Scan selection.	-
5	Rin 1-	-LVDS differential data input..	-
6	Rin 1+	+LVDS differential data input..	-
7	VSS	Ground.	-
8	Rin 2-	-LVDS differential data input.	-
9	Rin 2+	+LVDS differential data input.	-
10	VSS	Ground.	-
11	Rin 3-	-LVDS differential data input.	-
12	Rin 3+	+LVDS differential data input.	-
13	VSS	Ground.	-
14	ClkIN-	-LVDS differential data input.	-
15	ClkIN+	+LVDS differential data input.	-
16	VSS	Ground.	-
17	NC	Not connection.	-
18	NC	Not connection.	-
19	VSS	Ground.	-
20	NC	Not connection.	High Active

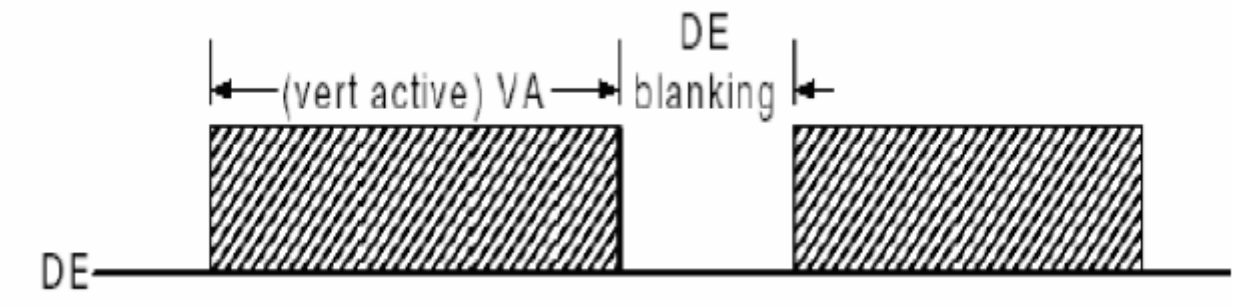
B/L Pin Assignment(CN2)

Pin No.	Symbol	Description	Remarks
1	VCC	Power Supply. 12V(typical).	-
2	GND	Ground.	-
3	EN	3.3V (typical)	-
4	PWM	3.3V (typical)	-
5	NC	Not Connection	-

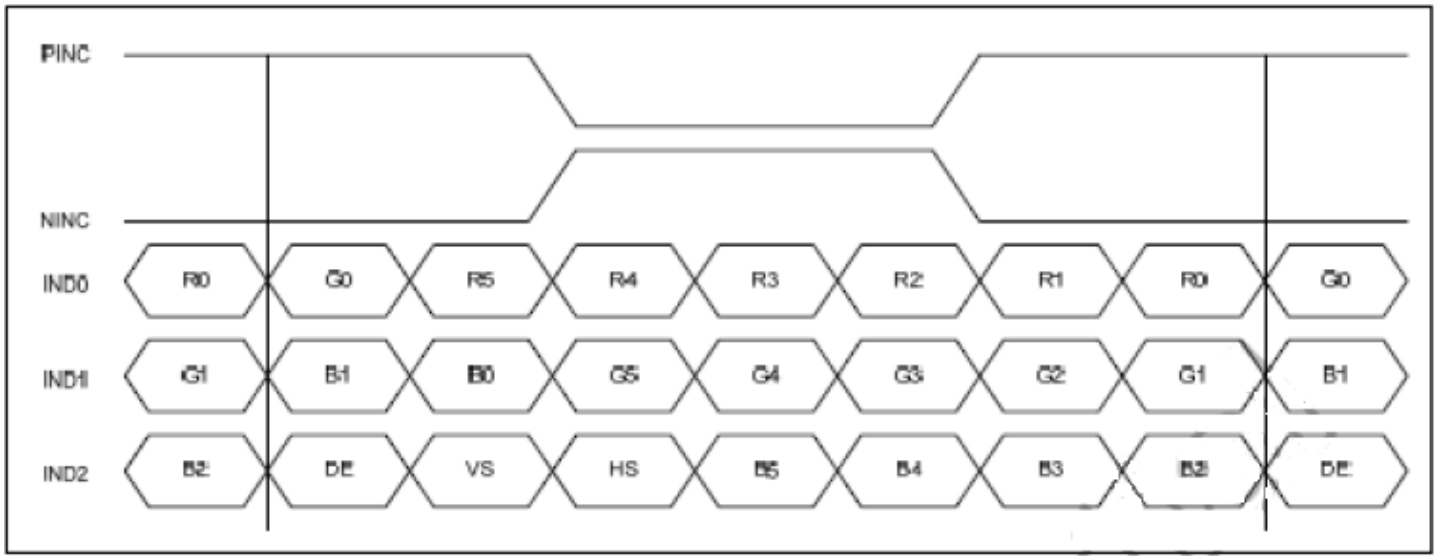
2.3 Timing Characteristics

DE Synchronization

Parameter	Symbol	Unit	Min.	Typ.	Max.
LVDS Clock Frequency **<single>**	f_{dck}	MHz	45	51.2	57
H Total Time	T_{hp}	clocks	1,324	1,344	1,364
H Active Time	HA	clocks	1,024	1,024	1,024
H Blanking Time	TH_{BLANK}	clocks	300	320	340
V Total Time	T_{vp}	lines	625	635	645
V Active Time	VA	lines	600	600	600
V Blanking Time	TV_{BLANK}	lines	25	35	45
V Frequency	f_v	Hz	55	60	65

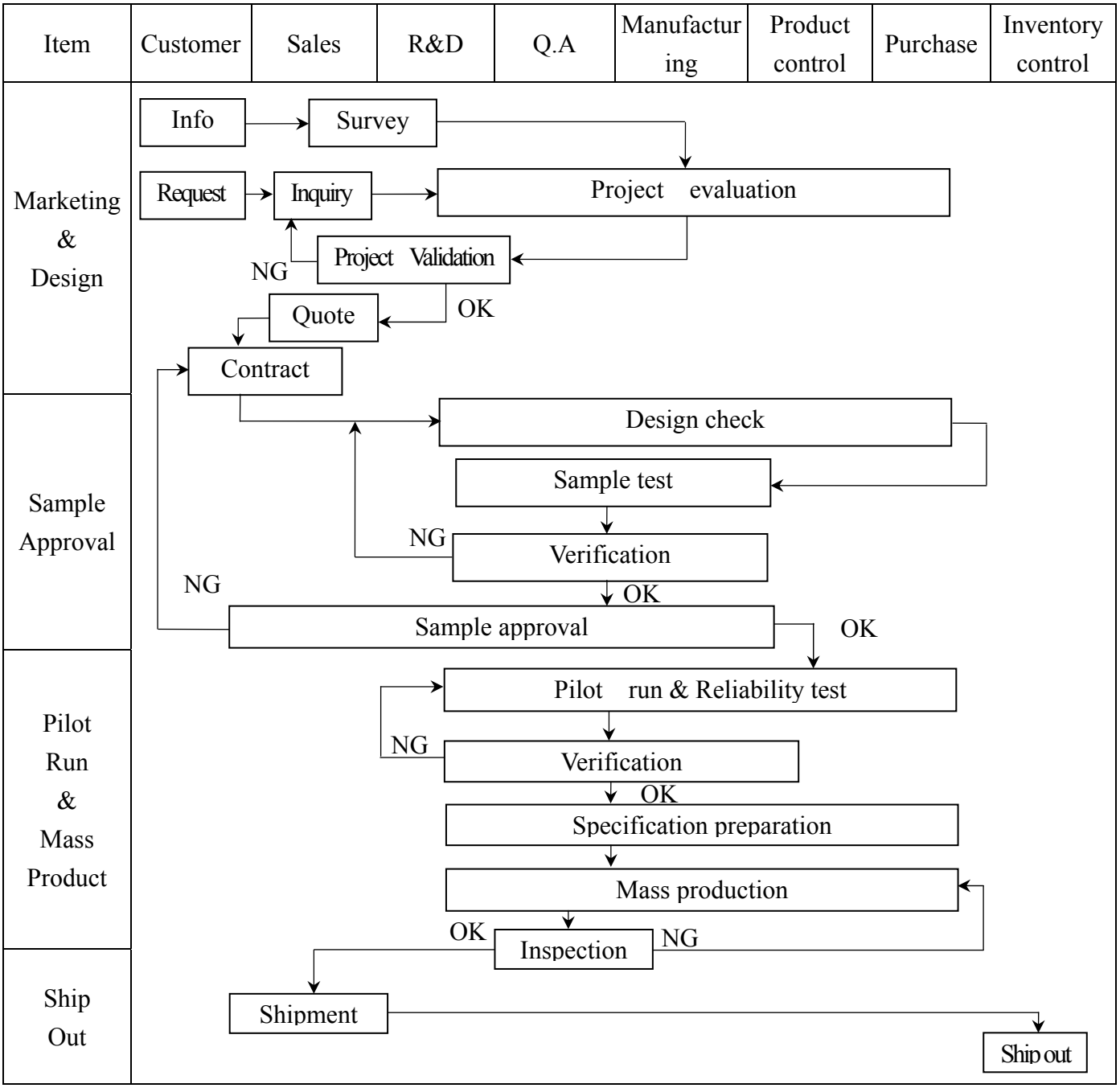


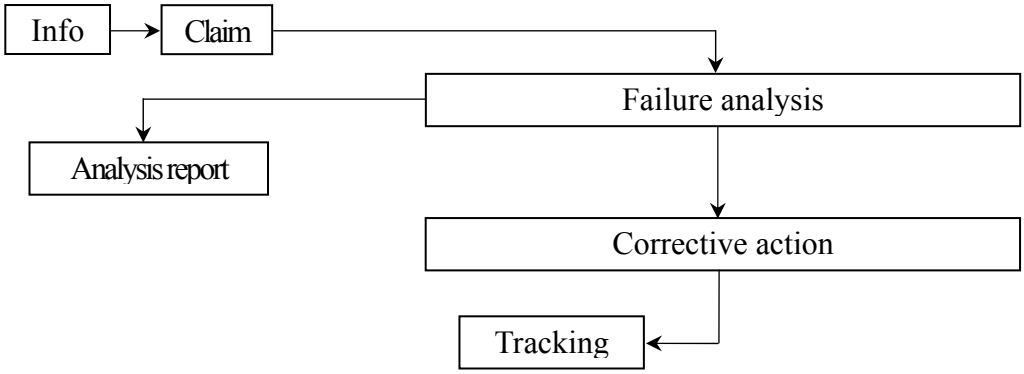
LVDS Data Mapping



3. QUALITY ASSURANCE SYSTEM

3.1 Quality Assurance Flow Chart



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

3.2. Inspection Specification

◆Scope：The document shall be applied to TFT-LCD Module for 3.5″ ~10.1″ (Ver.B01).

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

◆Equipment：Gauge、MIL-STD、Tester、Sample

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

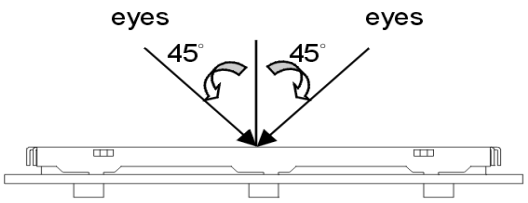
◆OUT Going Defect Level：Sampling.

◆Standard of the product appearance test：

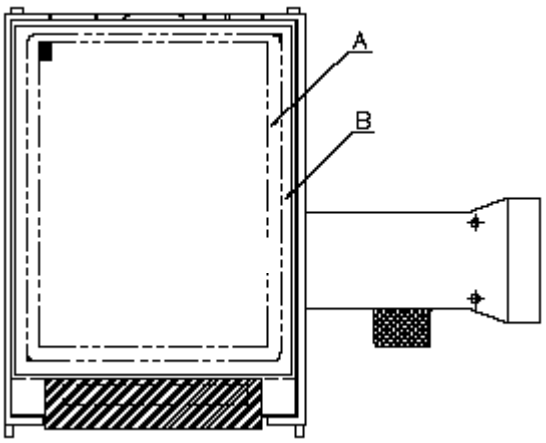
a. Manner of appearance test：

(1). The test best be under 20W×2 fluorescent light, and distance of view must be at 30 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″ ~10.1″ : (Ver.B01)

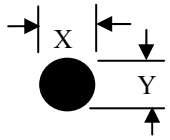
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="3">01</td><td rowspan="3">Product condition</td><td>1.1The part number is inconsistent with work order of production.</td><td>Major</td></tr>
<tr><td>1.2 Mixed product types.</td><td>Major</td></tr>
<tr><td>1.3 Assembled in inverse direction.</td><td>Major</td></tr>
<tr><td>02</td><td>Quantity</td><td>2.1The 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="5">04</td><td rowspan="5">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>05</td><td>Dot defect

(Bright dot、Dark dot)

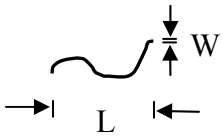
On -display</td><td>
<table>
<tr><th colspan="2">Item</th><th>Acceptance (Q’ty)</th></tr>
<tr><td rowspan="4">Dot Defect</td><td>Bright Dot</td><td>≦ 4</td></tr>
<tr><td>Dark Dot</td><td>≦ 5</td></tr>
<tr><td>Joint Dot</td><td>≦ 3</td></tr>
<tr><td>Total</td><td>≦ 7</td></tr>
</table>
5.1 Inspection 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 that can be seen through 5% ND filter.
</td><td>Minor</td></tr>
</table>

◆Specification For TFT-LCD Module 3.5″ ~10.1″： (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

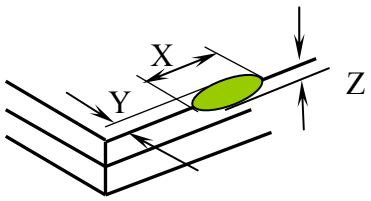
Round type
 

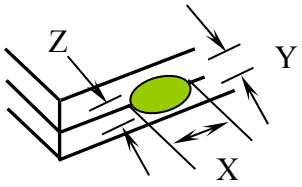
Φ=(x+y) / 2

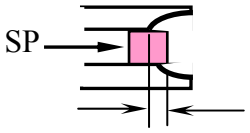
Line type
 
</td><td>6.1 Round type (Non-display or display)：
<table><tr><th rowspan="2">Dimension (diameter：Φ)</th><th colspan="2">Acceptance (Q’ty)</th></tr><tr><th>A area</th><th>B area</th></tr><tr><td>Φ ≦ 0.25</td><td>Ignore</td><td rowspan="4">Ignore</td></tr><tr><td>0.25 ＜ Φ ≦ 0.50</td><td>5</td></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">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>---</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></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>

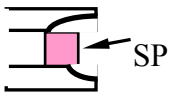
◆Specification For TFT-LCD Module 3.5″ ~10.1″ : (Ver.B01)

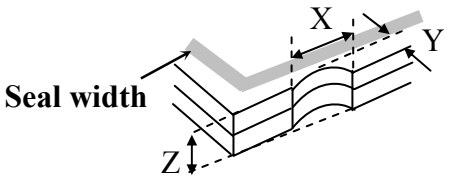
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="2">08</td><td rowspan="2">The crack of glass</td><td>
Symbols :

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
</td><td rowspan="2">Minor</td></tr>
<tr><td>
8.1 General glass chip :
8.1.1 Chip on panel surface and crack between panels:






【OK】


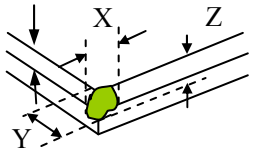
【NG】


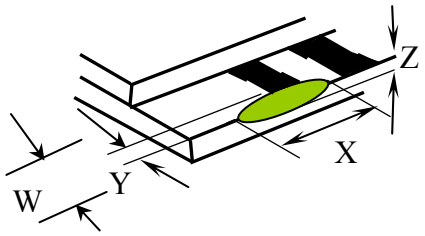
<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦ a</td><td>Crack can’t enter viewing area</td><td>≦1/2 t</td></tr>
<tr><td>≦ a</td><td>Crack can’t exceed the half of SP width.</td><td>1/2 t ＜ Z ≦2 t</td></tr>
</table>
</td></tr>
</table>

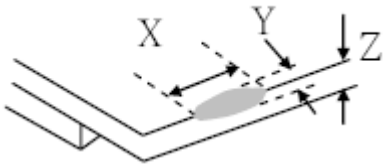
◆Specification For TFT-LCD Module 3.5″ ~10.1″ : (Ver.B01)

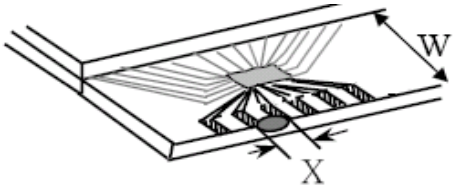
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="2">08</td><td rowspan="2">The crack of glass</td><td>
Symbols :

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 :


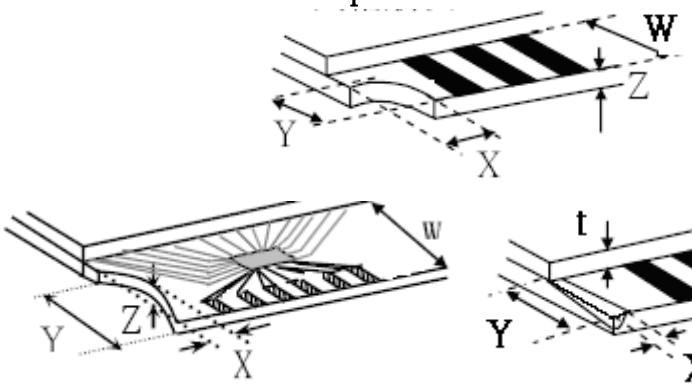


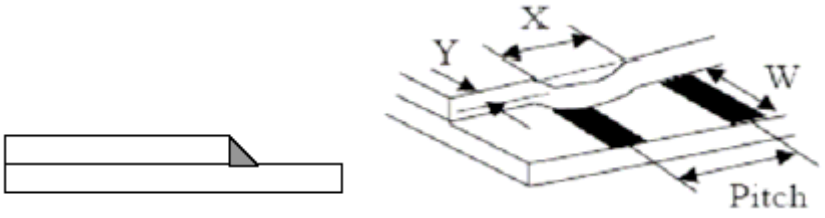


<table>
<tr><th></th><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>Front</td><td>≦ a</td><td>≦ 1/2 W</td><td>≦ t</td></tr>
<tr><td>Back</td><td>≦ a</td><td>≦ W</td><td>≦ 1/2 t</td></tr>
</table>
</td></tr>
</table>

◆Specification For TFT-LCD Module 3.5″ ~10.1″ : (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>
</td><td>Minor</td></tr>
</table>

◆Specification For TFT-LCD Module 3.5″ ~10″ : (Ver.B01)

NO	Item	Criterion	Level
09	Backlight elements	9.1 Backlight can't work normally.	Major
		9.2 Backlight doesn't light or color 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 the same as on the production characteristic chart .There should 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 polarizer 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)

<table>
<tr><th>NO.</th><th>TEST ITEM</th><th>TEST CONDITION</th></tr>
<tr><td>1</td><td>High Temperature
Storage Test</td><td>Keep in +80 ±2℃ 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td>2</td><td>Low Temperature
Storage Test</td><td>Keep in -30 ±2℃ 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td>3</td><td>High Temperature /
High Humidity
Storage Test</td><td>Keep in +60℃ / 90% R.H duration for 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.
(Excluding the polarizer)</td></tr>
<tr><td>4</td><td>Temperature Cycling
Storage Test</td><td>-30℃ → +25℃ → +80℃ → +25℃
(30mins) (5mins) (30mins) (5mins)
10 Cycle
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">ESD Test</td><td>Air Discharge:
Apply 2 KV with 5 times
Discharge for each polarity +/-
Contact Discharge:
Apply 250 V with 5 times
discharge for each polarity +/-</td></tr>
<tr><td>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%)</td></tr>
<tr><td>6</td><td>Vibration Test
(Packaged)</td><td>1. Sine wave 10 55 Hz frequency (1 min)
2. The amplitude of vibration :1.5 mm
3. Each direction (X、Y、Z) duration for 2 Hrs</td></tr>
<tr><td>7</td><td>Drop Test
(Packaged)</td><td><table><tr><th>Packing Weight (Kg)</th><th>Drop Height (cm)</th></tr><tr><td>0 ~ 45.4</td><td>122</td></tr><tr><td>45.4 ~ 90.8</td><td>76</td></tr><tr><td>90.8 ~ 454</td><td>61</td></tr><tr><td>0ver 454</td><td>46</td></tr></table>Drop direction :※1 corner / 3 edges / 6 sides each 1times</td></tr>
</table>

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 ketonics solvent & 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°C and 3-5 sec.

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

5.3 STORAGE

5.3.1 Store the panel or module in a dark place where the temperature is 25°C ± 5°C 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.

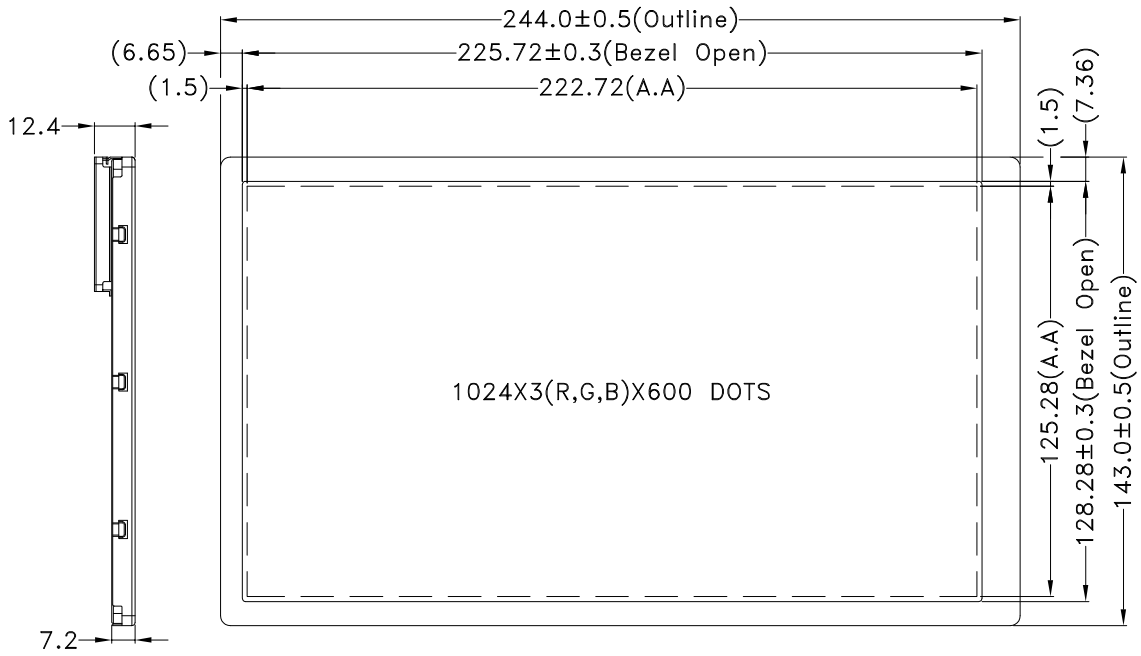
5.4 TERMS OF WARRANTY

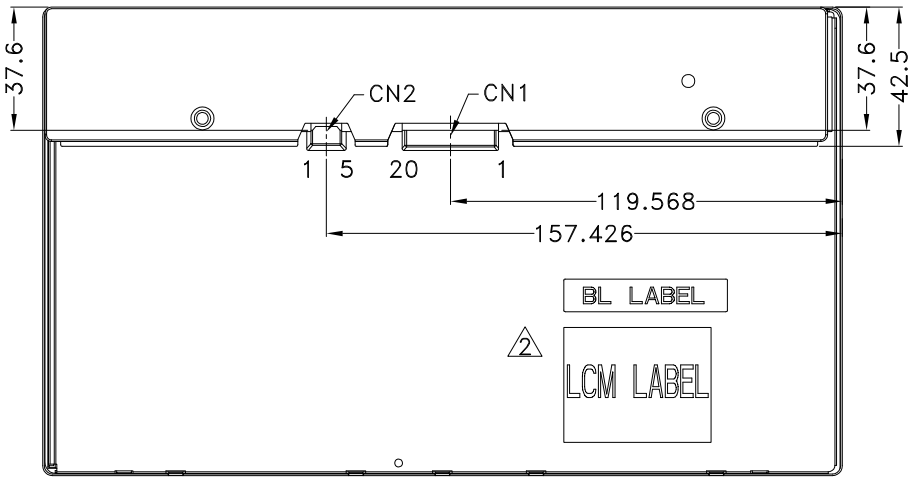
5.4.1 Applicable warrant period

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 White
3.The tolerance unless classified ±0.5mm
4.CN1:STM MSB240420HD
5.CN2:STM MSB24038P5A

REV	REV BY	REVISER	DATE
007			
006			
005			
004			
003			
002	ADD LABEL	Stone	2015/01/15
001	NEW DRAWING	Stone	2013/12/20

PART NO: USMP-T101-102060NAS-A0

DRAWING NAME :

TITLE: LCD MODULE DRAWING

US Micro Products
ENGINEERED DISPLAY SOLUTIONS

Design	Stone	(3)	Surface		
Check	Sam	Unit	MM	Material	
		Scale	1:1	Thickness	
Approve	Oliver	Page	1/1	Quantity	

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

Ver.002	US Micro Products ENGINEERED DISPLAY SOLUTIONS
Documents NO.	

LCM包裝規格書
LCM Packaging Specifications

Approve	Check	Contact
Oliver	Sam	Stone

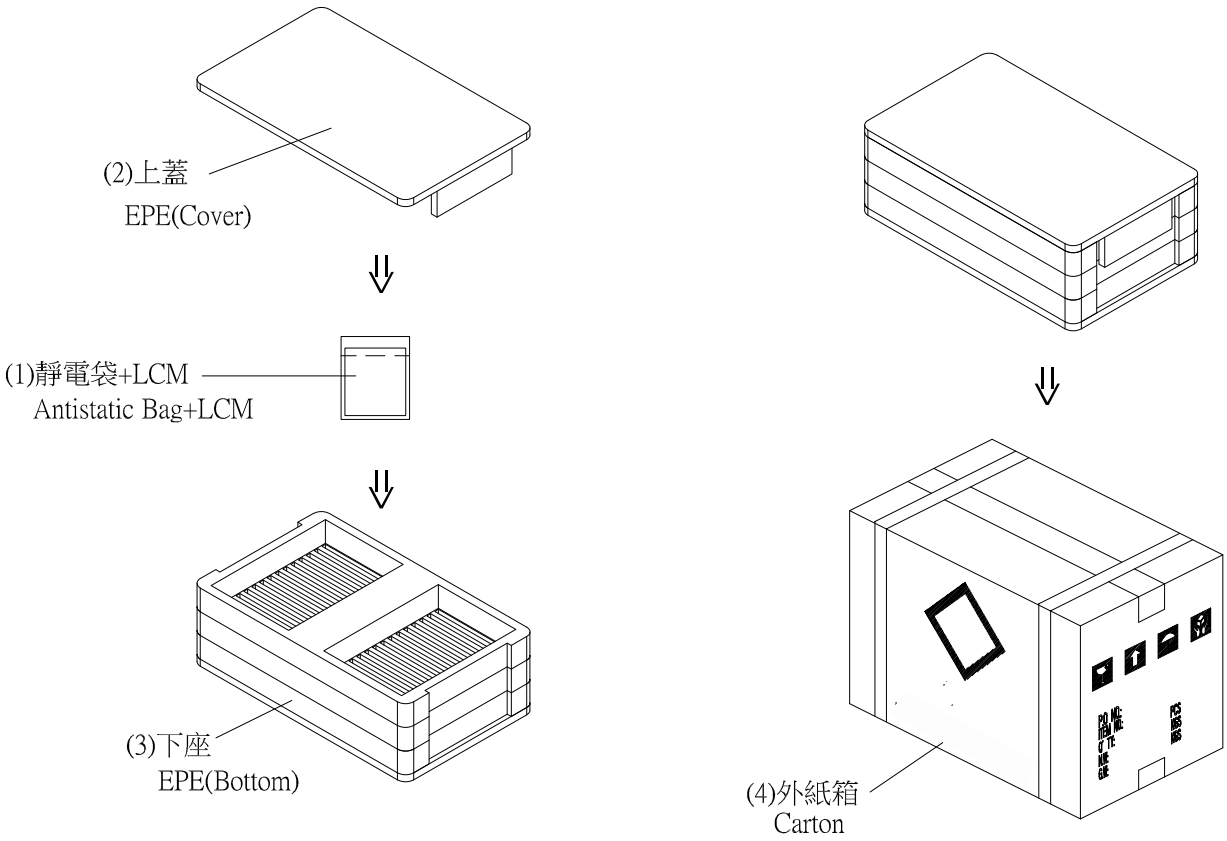
1.包裝材料規格表 (Packaging Material) : (per carton)

No.	Item	Model	Dimensions (mm)	1Pcs Weight	Quantity	Total Weight
1	成品 (LCM)		244.0 X 143.0	0.41	20	8.2
2	靜電袋(1)Antistatic Bag		240 X 300	0.008	20	0.16
3	上蓋(2)EPE(Cover)		520 X 315 X 65	0.108	1	0.108
4	下座(3)EPE(Bottom)		520 X 315 X 330	0.85	1	0.85
5	外紙箱(4)Carton		527 X 325 X 360	1.092	1	1.092
6						

2.一 整箱總重量 (Total LCD Weight in carton) : 10.41 Kg±10%

3.單箱數量規格表 (Packaging Specifications and Quantity) :

Total LCM quantity in carton : quantity per EPE 20 x no of EPE 1 = 20



特 記 事 項 (REMARK)