SPECIFICATIONS

CUSTOMER	:	
SAMPLE CODE	:	SH102768T001-ZAA
MASS PRODUCTION CODE	:	PH102768T001-ZAA
SAMPLE VERSION	:	01
SPECIFICATIONS EDITION	:	003
DRAWING NO. (Ver.)	:	LMD- PH102768T001-ZAA (Ver.002)
PACKAGING NO. (Ver.)	:	PKG- PH102768T001-ZAA (Ver.001)

Customer Approved

Date:

Approved	Checked	Designer
Oliver Huang	**Oliver Huang**	**Lambert Lee**

Preliminary specification for design input

Specification for sample approval

POWERTIP
2015.01.21
TWRD APR

NO.PT-A-005-8

History of Version

Date (mm / dd / yyyy)	Ver.	Edi.	Description	Page	Design by
08/05/2014	01	001	New Drawing.	-	Lambert
08/18/2014	01	002	First sample	-	Lambert
01/20/2015	01	003	Modify LCM Drawing	Appendix	Lambert

Total: 26 Page

Contents

1.1 Features

Item	Standard Value
Screen size(inch)	12.1 inch
Display Type	1024 * (RGB) * 768
LCD Type	Normally white
Touch panel	---
Color configuration	R.G.B. Vertical Stripe
Backlight Type	LED B/L
Weight	545 g(max)
Interface	LVDS
Support Color	16.7M
Surface Treatment	Anti-glare & hardness 3H
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer website : http://www.powertip.com.tw/news.php?area_id_view=1085560481/

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	279.0 (W) * 209.0 (L) * 9.0 (H)	mm

LCD panel

Item	Standard Value	Unit
Active Area	245.76 (W) * 184.32 (L)	mm

Note : For detailed information please refer to LCM drawing

1.3 Absolute Maximum Ratings

Module

Item	Symbol	Min.	Max.	Unit	Condition
Input power supply	VDD	-0.5	+5.0	V	(1)
Operating Temperature	T_{OP}	-20	+70	°C	(1)(2)(3)(4)
Operating Humidity	H_{OP}	10	85	%RH	-
Storage Temperature	T_{ST}	-30	+80	°C	-
Storage Humidity	H_{ST}	10	95	%RH	-

Note (1): Humidity: 85%RH Max. (T<=40   ) Note static electricity

Maximum wet bulb temperature at 39   or less. (T>40   ) No condensation

Note (2): There is a possibility of causing deterioration in the irregularity and others of the screen and the display fineness
though the liquid crystal module doesn't arrive at destruction when using it at 80~85   or -20   .

Note (3): There is a possibility of causing the fineness deterioration by the prolonged use in the (high temperature)
humidity environment (60% or more).

Note (4): In the operating temperature item, the low temperature side is the ambient temperature regulations. The high
temperature side is the panel surface temperature regulations.

Note (5): Storage Range & Operating Range Picture:
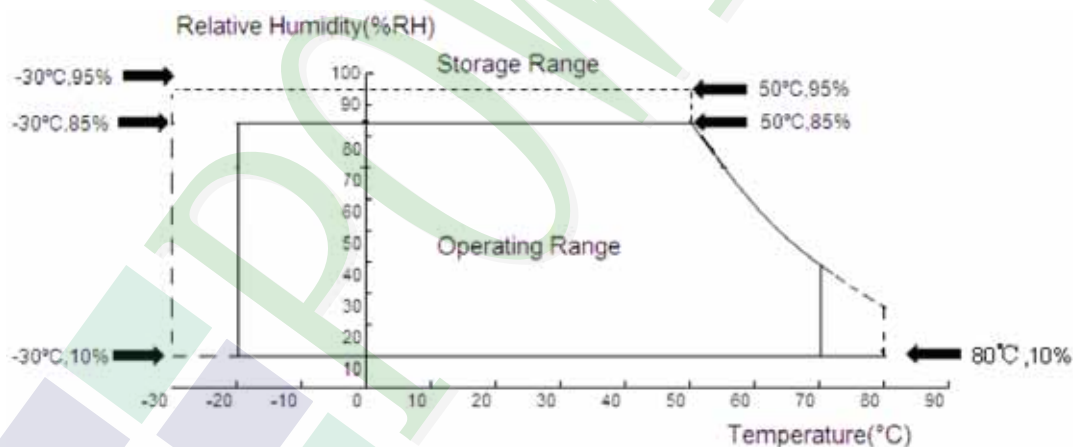
1.4 DC Electrical Characteristics

TFT LCD Module

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Power Supply	VDD	Note (2)(4)	3.0	3.3	3.6	V
VDD Current	IDD	VDD =3.3V Black Pattern Note (3)(4)	-	-	250	mA
VDD Power Consumption	PDD	VDD =3.3V Black Pattern Note (3)(4)			0.825	W
Rush Current	Irush	Note (1)(4)	-	-	3	A
Allowable Logic/LCD Drive Ripple Voltage	VDDrp	Note (4)	-	-	200	mV

Note (1): Measure Condition

VDD Rising Time
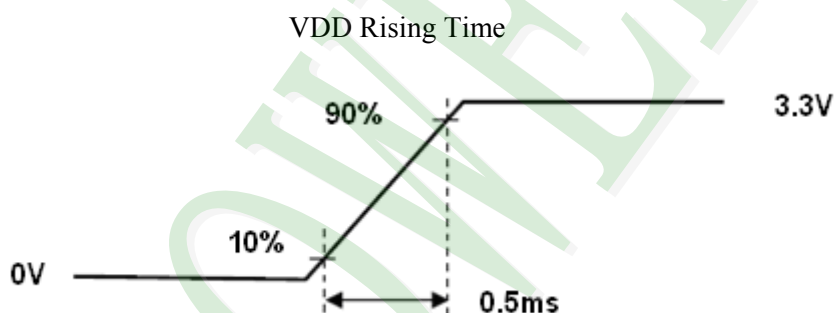
Note　(2) VDD Power Dip Condition

If VTH<VDD≤Vmin　then td≤10ms　When the voltage returns to normal our panel must revive automatically.

15 VDD Power Dip
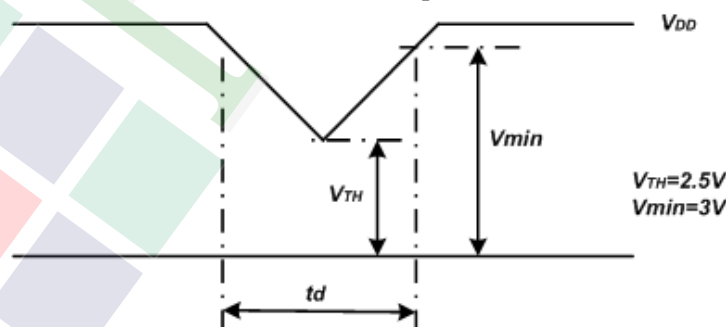
Note (3) Frame Rate=60Hz, VDD=3.3V,DC Current.
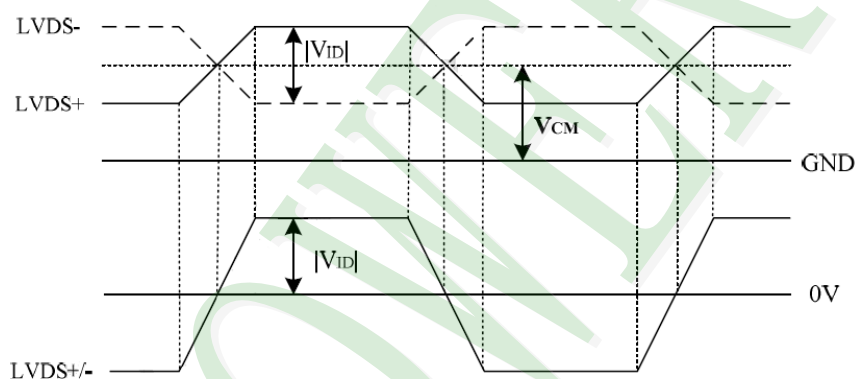
Note (4) Operating temperature 25　　humidity 55%RH

Switching Characteristics for LVDS Receiver

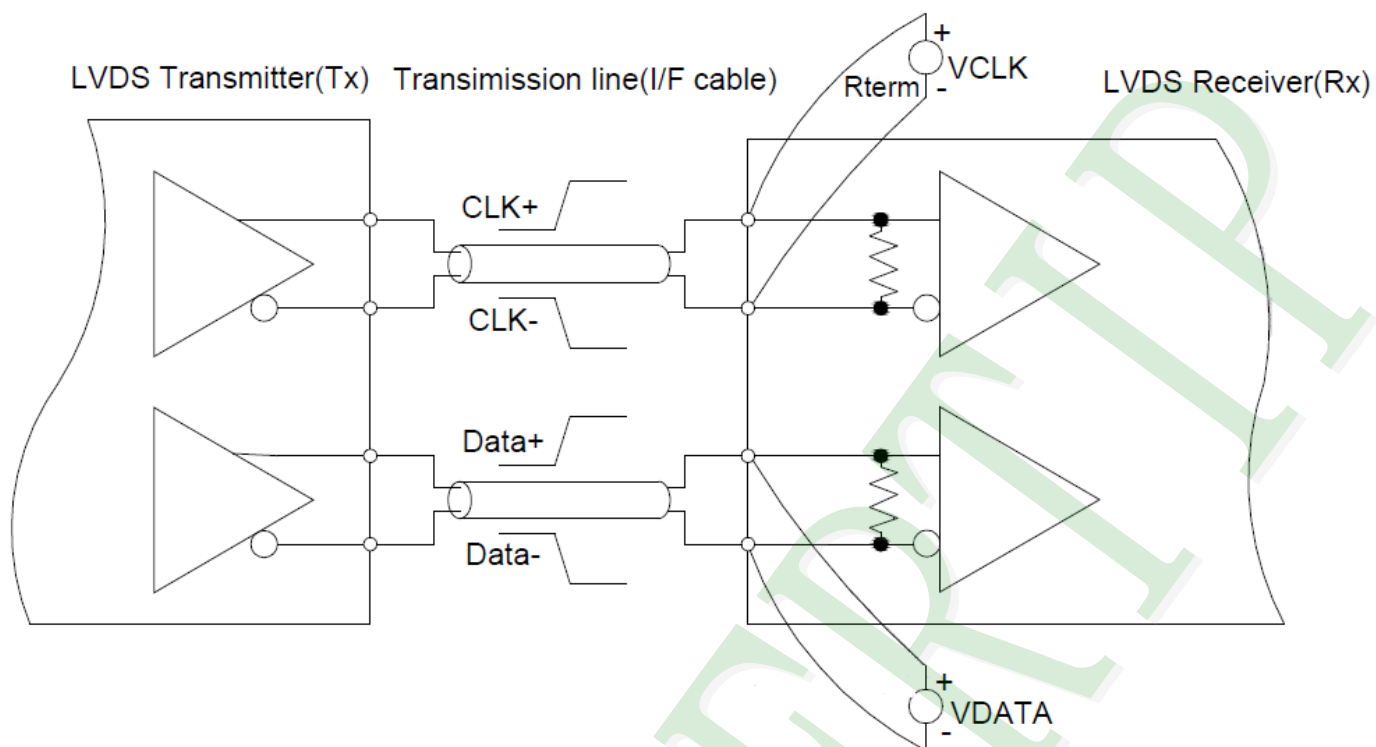| Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Differential Input High Threshold	Vth	VCM=+1.2V	-	-	+100	mV
Differential Input Low Threshold	Vtl	VCM=+1.2V	-100	-	-	mV
Magnitude Differential Input Voltage	|VID|	-	100	-	600	mA
Common Mode Voltage	VCM	-	|VID|/2+0.6	1.2	1.8-|VID|/2	V
Common Mode Voltage Offset	VCM	VCM=+1.2V	-	-	50	mV

Note: (1) Input signals shall be low or Hi- resistance state when VDD is off.

(2) All electrical characteristics for LVDS signal are defined and shall be measured at the interface connector of LCD.
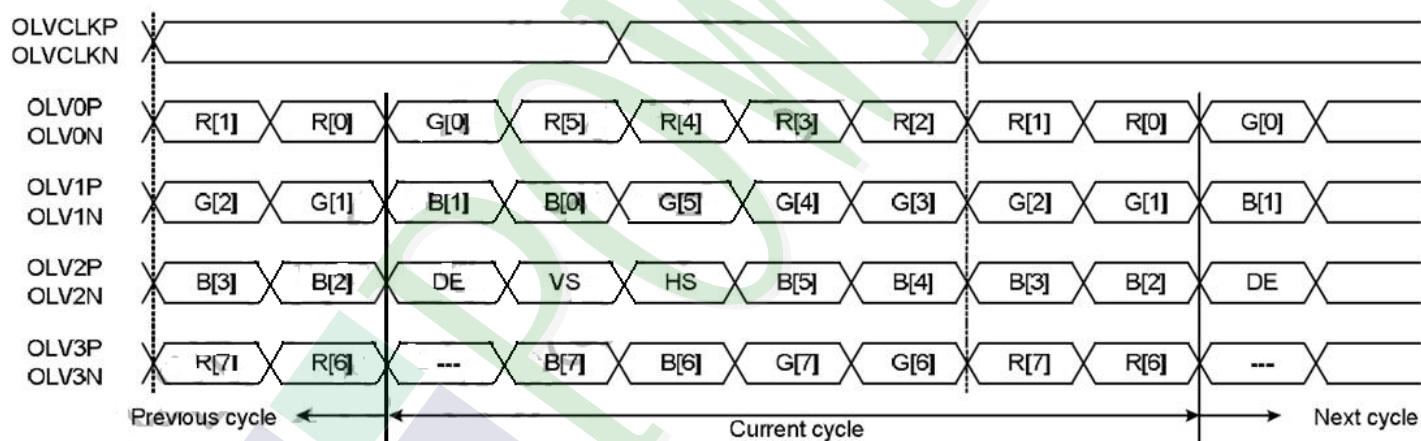
Voltage Definitions

Measurement System

LVDS Transmitter(Tx) Transimission line(I/F cable) Rterm + VCLK - LVDS Receiver(Rx)

CLK+
CLK-

Data+
Data-

+ VDATA -

Data Mapping

OLVCLKP / OLVCLKN									
OLV0P / OLV0N	R[1]	R[0]	G[0]	R[5]	R[4]	R[3]	R[2]	R[1]	R[0]	G[0]
OLV1P / OLV1N	G[2]	G[1]	B[1]	B[0]	G[5]	G[4]	G[3]	G[2]	G[1]	B[1]
OLV2P / OLV2N	B[3]	B[2]	DE	VS	HS	B[5]	B[4]	B[3]	B[2]	DE
OLV3P / OLV3N	R[7]	R[6]	---	B[7]	B[6]	G[7]	G[6]	R[7]	R[6]	---

Previous cycle ← Current cycle → Next cycle

1.5 Optical Characteristics

TFT LCD Panel   Ta=25°C

Item		Symbol	Condition	Min.	Typ.	Max.	unit	
Response time	Rise	Tr+Tf	Ta = 25°C θX, θY = 0°	-	16	-	ms	Note2
Viewing angle (With B/L on / With 3D-LCD barrier off)	Top	θY+	CR ≥ 10	70	80	-	Deg.	Note4
	Bottom	θY-		70	80	-		
	Left	θX-		70	80	-		
	Right	θX+		70	80	-		
Contrast ratio		CR		720	800	-	-	-
Color of CIE Coordinate	White	X	Ta = 25°C θX , θY = 0°	0.255	(0.305)	0.355	-	Note1
		Y		0.275	(0.325)	0.375		
	Red	X		-	TBD	-		
		Y		-	TBD	-		
	Green	X		-	TBD	-		
		Y		-	TBD	-		
	Blue	X		-	TBD	-		
		Y		-	TBD	-		
Average Brightness Pattern=white display		IV	TBD	315	350	-	cd/m²	Note1
Uniformity		B	TBD	70	-	-	%	Note1

Note1:

1   B=B(min) / B(max) × 100%
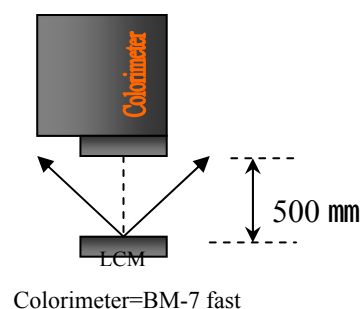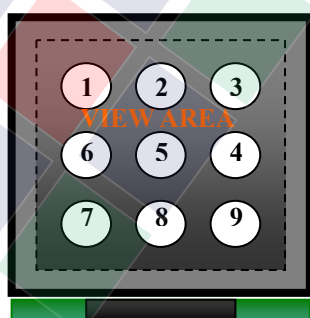
2   Measurement Condition for Optical Characteristics:

   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"(rising time) and from "white" to "black"(falling 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	Symbol	Min.	Typ.	Max.	Units	Condition
LED Voltage	V_L	10.8	12	12.6	V	
LED Current	I_L	-	240	-	m A	
LED Forward Voltage	V_F	2.8	3.3	3.6	V	Ta=25
LED Forward Current	I_F		60		m A	
BL Power Consumption	P_L	-	-	6.1	W	
LED Life Time	-	(30,000)	-	-	Hours	Ta=25 /IL=240mA Note (1)

Note (1) The LED life time define as the estimated time to 50% degradation of initial luminous.

Note (2) Operating temperature 25 , humidity 55%RH.

Note (3) A higher LED power supply voltage will result in better power efficiency. Keep the V_{LED} between 12V and 12.6V is strongly recommended.

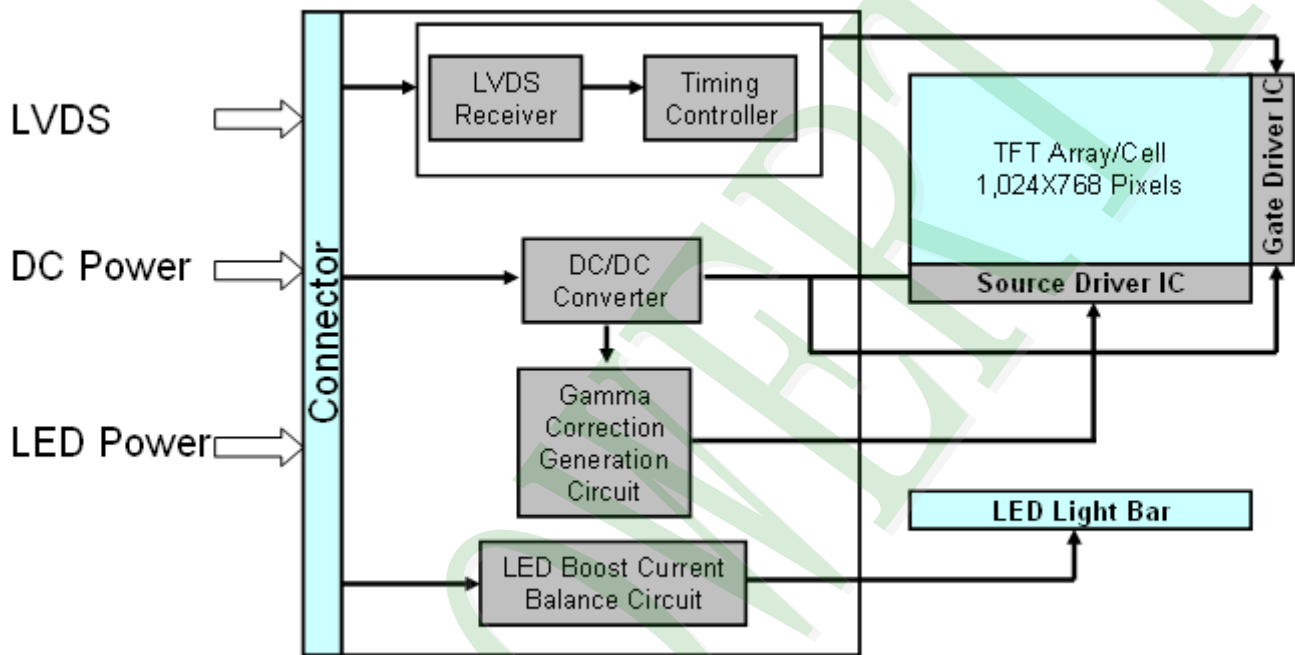LED Rush Current Measure Condition
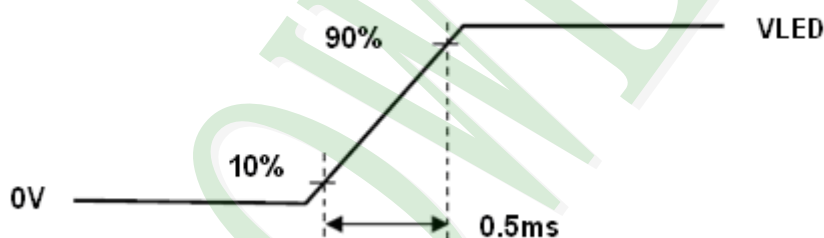
LED Circuit Diagram
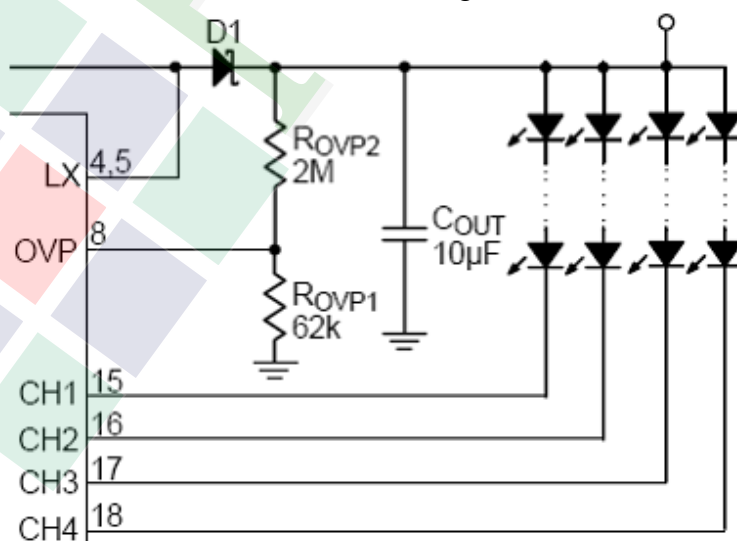
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1   LCM Mechanical Diagram

* See Appendix

2.1.2   Block Diagram

2.2 Interface Pin Description

LVDS

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 {High:2.5(min), 3.3(typ),3.6(max); Low: 0.5(max)}
5	Rin1-	-LVDS differential data input (R0-R5,G0)
6	Rin1+	+LVDS differential data input (R0-R5,G0)
7	VSS	Ground
8	Rin2-	-LVDS differential data input (G1-G5,B0-B1)
9	Rin2+	+LVDS differential data input (G1-G5,B0-B1)
10	VSS	Ground
11	Rin3-	-LVDS differential data input (B2-B5,HS,VS,DE)
12	Rin3+	+LVDS differential data input (B2-B5,HS,VS,DE)
13	VSS	Ground
14	ClkIN-	-LVDS differential clock input
15	ClkIN+	+LVDS differential clock input
16	GND	Ground
17	Rin4-	-LVDS differential data input (R6-R7,G6-G7,B6-B7)
18	Rin4+	+VDS differential data input (R6-R7,G6-G7,B6-B7)
19	SEL68	6/8 bits LVDS data input selection(H:8bit L/NC:6bit)
20	Bist	Internal use

Note(1) : All input signals shall be low or Hi-resistance state when VDD is off.

BL

Pin No.	Function
1	VCC(12V input)
2	GND
3	On/Off(5V-ON,0V-OFF)
4	Dimming(PWM)
5	NC

2.3 Timing Characteristics

Interface Timings

Parameter	Symbol	Unit	Min.	Typ.	Max.
LVDS Clock Frequency	Fclk	MHz	50	65	80
H Total Time	HT	Clocks	1100	1344	2047
H Active Time	HA	Clocks	1024	1024	1024
H Blanking Time	HBL	Clocks	76	320	1023
V Total Time	VT	Lines	776	806	1023
V Active Time	VA	Lines	768	768	768
V Blanking Time	VBL	Lines	8	38	255
Frame Rate	Vsync	Hz	-	60	-

Note: H Blanking Time and V Blanking Time can not be changed at every frame.

Timing Characteristics
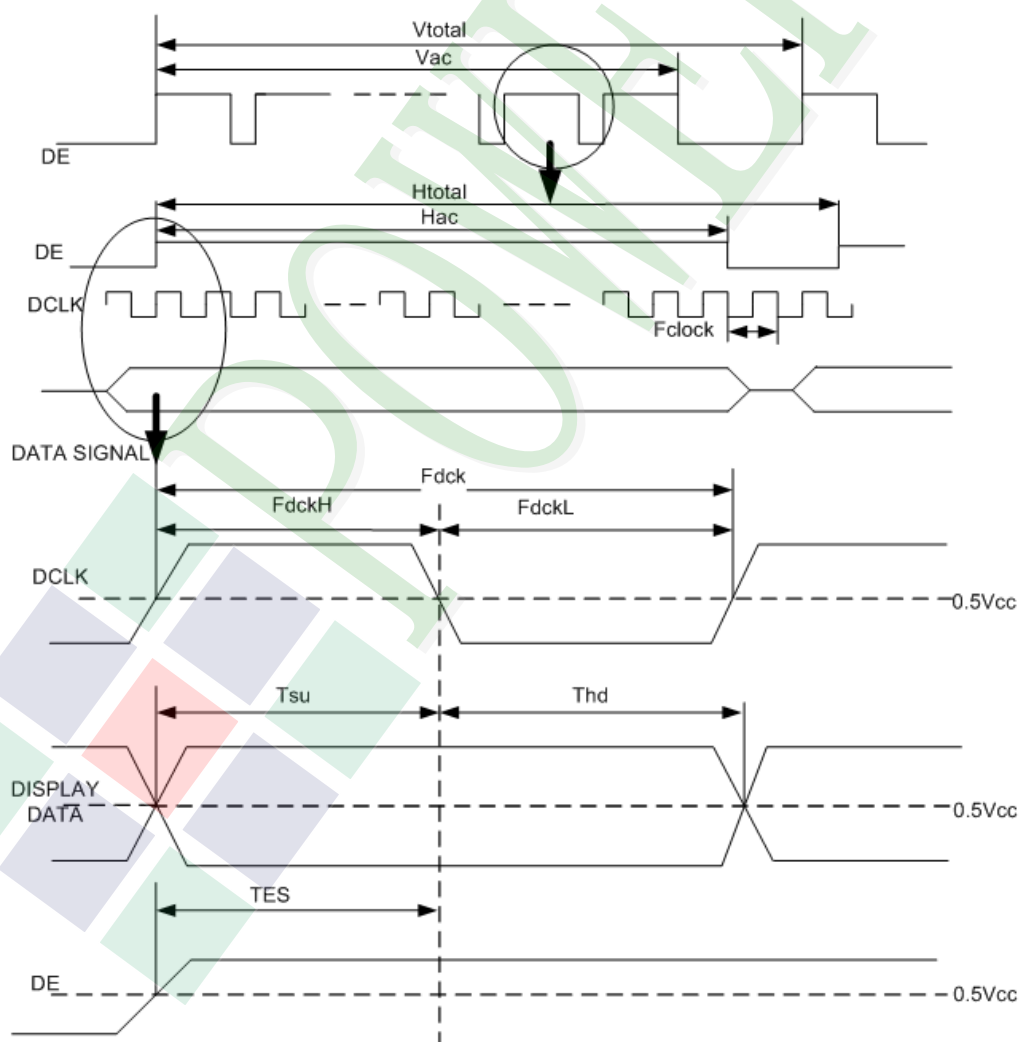
Power ON/OFF Sequence

Power on/off sequence is as follows. Interface signals are also shown in the chart. Signals from any system shall be Hi-resistance state or low level when VDD is off.

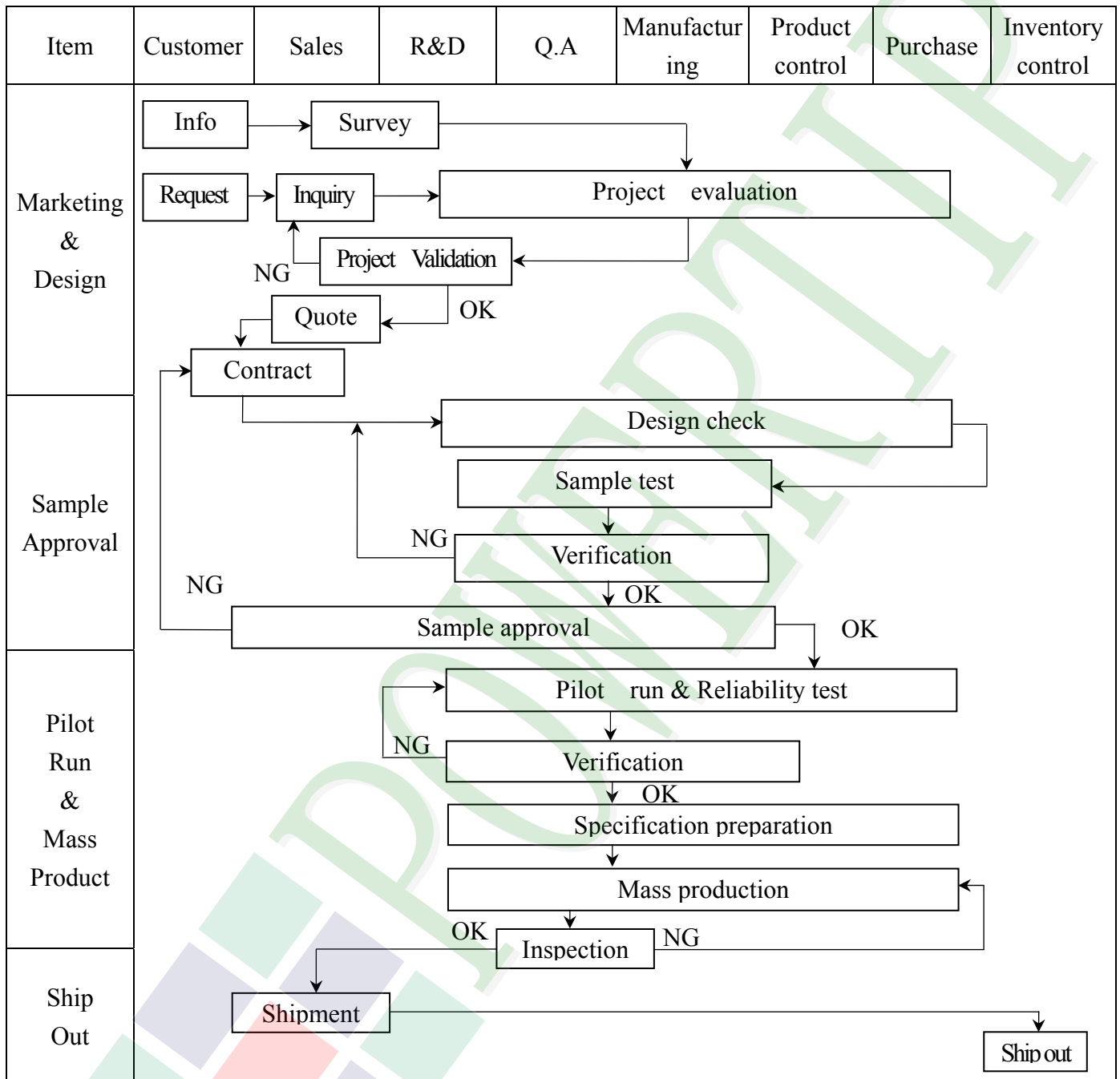**Power Sequence**
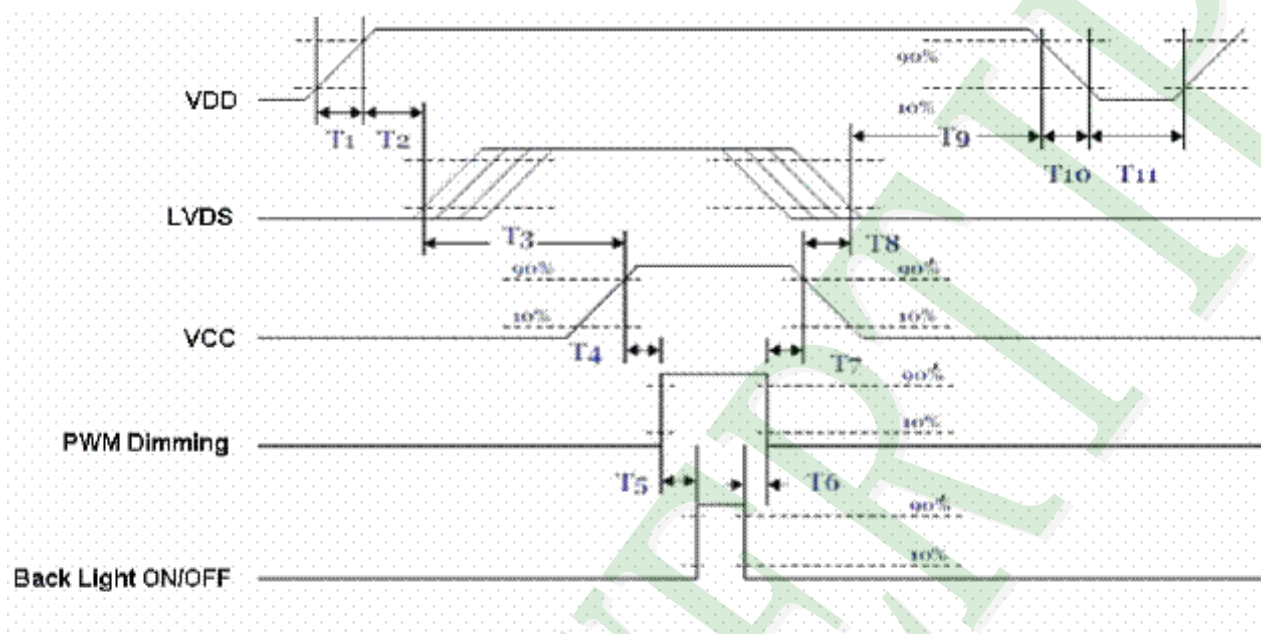
Power ON/OFF sequence timing

Parameter	Value			Units
	Min.	Typ.	Max.	
T1	0.5	-	10	[ms]
T2	30	40	50	[ms]
T3	200	-	-	[ms]
T4	10	-	-	[ms]
T5	10	-	-	[ms]
T6	0	-	-	[ms]
T7	10	-	-	[ms]
T8	100	-	-	[ms]
T9	0	16	50	[ms]
T10	-	-	10	[ms]
T11	1000	-	-	[ms]
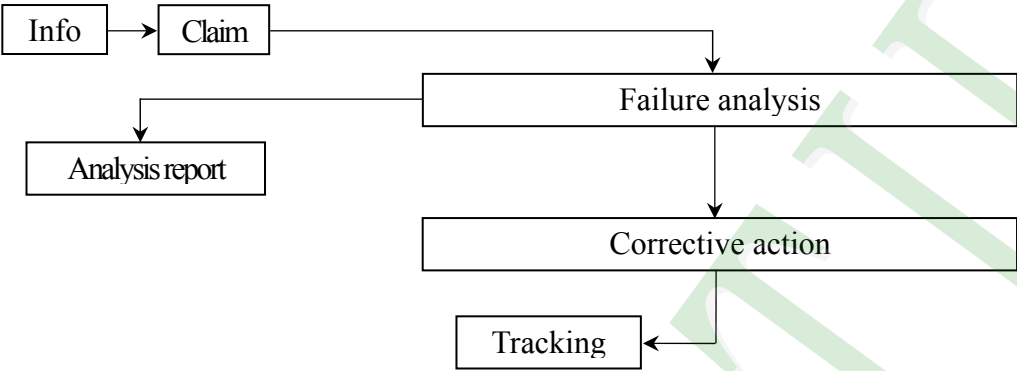
Note

(1) Power On Sequence: VCC-> AVDD -> VGL -> VGH -> Data -> B/L

(2) Power Off Sequence: B/L-> Data -> VGH -> VGL -> AVDD -> VCC

3. QUALITY ASSURANCE SYSTEM

3.1   Quality Assurance Flow Chart

Item	Customer	Sales	R&D	Q.A	Manufacturing	Product control	Purchase	Inventory control
Marketing & Design								
Sample Approval								
Pilot Run & Mass Product								
Ship Out								

Info → Survey → Project evaluation

Request → Inquiry → Project evaluation

Project Validation — OK → Quote

NG → Inquiry

Quote → Contract

Contract → Design check

Design check → Sample test

Sample test → Verification

NG → Contract

Verification — OK → Sample approval

Sample approval — NG

Sample approval — OK → Pilot run & Reliability test

Pilot run & Reliability test → Verification

NG

Verification — OK → Specification preparation

Specification preparation → Mass production

Mass production → Inspection

Inspection — OK → Shipment

Inspection — NG → Mass production

Shipment → Ship out

Item	Customer	Sales	R&D	Q.A	Manufacturing	Product control	Purchase	Inventory control
Sales Service	Info → Claim							
	Analysis report			Failure analysis → Corrective action → Tracking				
Q.A Activity	1. ISO 9001 Maintenance Activities 2. Process improvement proposal 3. Equipment calibration 4. Education And Training Activities 5. Standardization Management							

3.2. Inspection Specification

Scope　The document shall be applied to TFT-LCD Module for 3.5 ~12.1 (Ver.B01).

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

Equipment　Gauge　MIL-STD　Powertip 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.
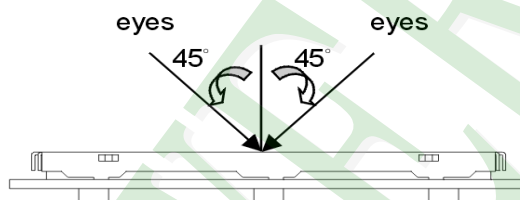
　(3). Definition of area.
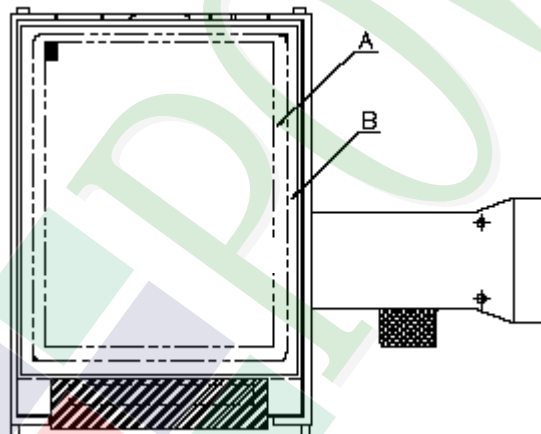
A area : viewing area

B area : Outside of viewing area

　(4). Standard of inspection　(Unit　mm)
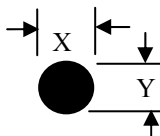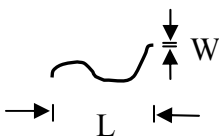
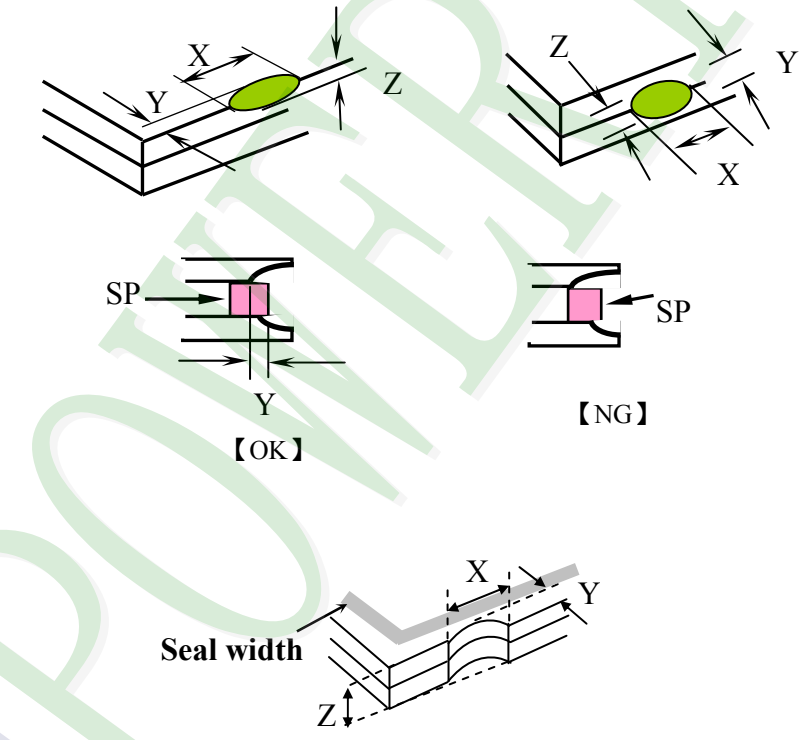| NO	Item	Criterion	Level
01	Product condition	1.1 The part number is inconsistent with work order of production.	Major
		1.2 Mixed product types.	Major
		1.3 Assembled in inverse direction.	Major
02	Quantity	2.1 The quantity is inconsistent with work order of production.	Major
03	Outline dimension	3.1 Product dimension and structure must conform to structure diagram.	Major
04	Electrical Testing	4.1 Missing line character and icon.	Major
		4.2 No function or no display.	Major
		4.3 Display malfunction.	Major
		4.4 LCD viewing angle defect.	Major
		4.5 Current consumption exceeds product specifications.	Major
05	Dot defect (Bright dot Dark dot) On -display	<table><tr><td rowspan="4">Dot Defect</td><td>Item</td><td>Acceptance (Q'ty)</td></tr><tr><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></td><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 8% ND filter.	Minor

NO	Item	Criterion	Level
06	**Black or white dot scratch contamination** **Round type** Φ＝(x＋y)/2 **Line type** 	**6.1 Round type (Non-display or display)** **6.2 Line type(Non-display or display)**	**Minor**
07	**Polarizer Bubble**		**Minor**

6.1 Round type (Non-display or display)

Dimension (diameter Φ)	Acceptance (Q'ty)	
	A area	B area
Φ ≦ 0.25	Ignore	Ignore
0.25 ＜ Φ ≦ 0.50	5	
Φ ＞ 0.50	0	
Total	**5**	

6.2 Line type(Non-display or display)

Length (L)	Width (W)	Acceptance (Q'ty)	
		A area	B area
---	W ≦ 0.03	Ignore	Ignore
L ≦ 10.0	0.03 ＜ W ≦ 0.05	4	
L ≦ 5.0	0.05 ＜ W ≦ 0.10	2	
---	W ＞ 0.10	As round type	
Total		**5**	

Dimension (diameter Φ)	Acceptance (Q'ty)	
	A area	B area
Φ ≦ 0.25	Ignore	Ignore
0.25 ＜ Φ ≦ 0.50	4	
0.50 ＜ Φ ≦ 0.80	1	
Φ ＞ 0.80	0	
Total	**5**	
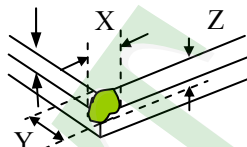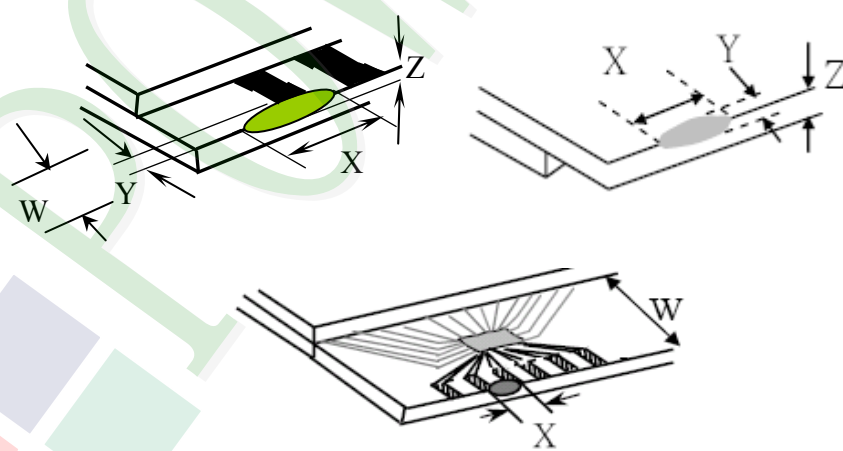
NO	Item	Criterion	Level
08	**The crack of glass**	**Symbols** **X : The length of crack** **Y : The width of crack.** **Z : The thickness of crack** **W : terminal length** **t : The thickness of glass** **a : LCD side length** -------- **8.1 General glass chip** **8.1.1 Chip on panel surface and crack between panels:** OK NG **Seal width** *(see table below)*	**Minor**

X	Y	Z
a	**Crack can't enter viewing area**	1/2t
a	**Crack can't exceed the half of SP width.**	1/2 t Z 2 t
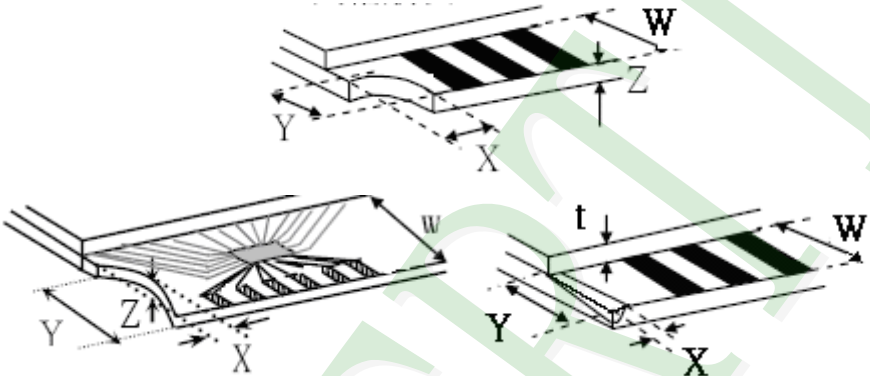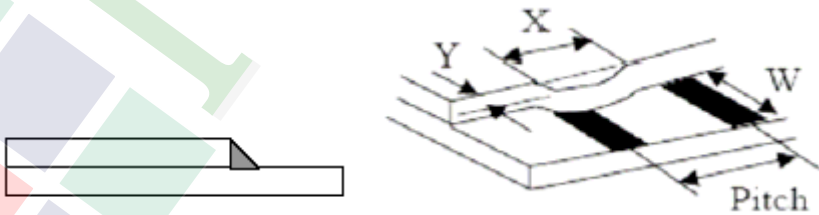
NO	Item	Criterion	Level
08	The crack of glass	Symbols X : The length of crack Y : The width of crack. Z : The thickness of crack W : terminal length t : The thickness of glass a : LCD side length 8.1.2 Corner crack 8.2 Protrusion over terminal 8.2.1 Chip on electrode pad 	Minor

8.1.2 Corner crack table:

X	Y	Z
1/5 a	Crack can't enter viewing area	Z 1/2t
1/5 a	Crack can't exceed the half of SP width.	1/2 t Z 2 t

8.2.1 Chip on electrode pad table:

	X	Y	Z
Front	a	1/2W	t
Back	a	W	1/2t

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 8.2.2 Non-conductive portion If the chipped area touches the ITO terminal, over 2/3 of 1. the ITO must remain and be inspected according to electrode terminal specifications. 8.2.3 Glass remain :	Minor

8.2.2 Non-conductive portion

X	Y	Z
1/3 a	W	t

If the chipped area touches the ITO terminal, over 2/3 of

1.   the ITO must remain and be inspected

according to electrode terminal specifications.

8.2.3 Glass remain :

X	Y	Z
a	1/3 W	t

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)

NO.	TEST ITEM	TEST CONDITION
1	**High Temperature Storage Test**	**Keep in +80 ±2 96 hrs** **Surrounding temperature, then storage at normal condition 4 hrs.**
2	**Low Temperature Storage Test**	**Keep in - 30 ±2 96 hrs** **Surrounding temperature, then storage at normal condition 4 hrs.**
3	**High Temperature / High Humidity Storage Test**	**Keep in +60 / 90% R.H duration for 96 hrs** **Surrounding temperature, then storage at normal condition 4 hrs.** **(Excluding the polarizer)**
4	**Temperature Cycling Storage Test**	**- 30 +25 +80 +25** **(30 mins) (5 mins) (30 mins) (5 mins)** **10 Cycle** **Surrounding temperature, then storage at normal condition 4 hrs.**
5	**ESD Test**	**Air Discharge:** / **Contact Discharge:** **Apply 2 KV with 5 times** / **Apply 250 V with 5 times** **Discharge for each polarity +/-** / **discharge for each polarity +/-** **1. Temperature ambiance : 15 35** **2. Humidity relative : 30% 60%** **3. Energy Storage Capacitance(Cs+Cd) : 150 pF±10%** **4. Discharge Resistance(Rd) : 330 ±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)**	(see table below) **Drop Direction : 1 corner / 3 edges / 6 sides each 1 time**

Packing Weight (Kg)	Drop Height (cm)
0 ~ 45. 4	122
45. 4 ~ 90. 8	76
90. 8 ~ 454	61
Over 454	46

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 $320 \pm 10°C$ 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 $25°C \pm 5°C$ 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 MSB24042OHE
5.CN2: STM MSB24038P5A

Drawing dimensions and labels:

- 9.0 Max.
- 6.0±0.3
- 2.7±0.3
- 209.0±0.5
- 185.8±0.3
- 185.0±0.3
- (97.0)
- 9.0±0.3
- 4.0±0.3
- φ3.4±0.15
- φ3.4±0.15
- 3.0±0.3
- 4.3
- R1.7
- 1.0
- 272.0±0.5
- 270.3±0.5
- 250.8±0.3(BEZEL OPENING)
- 245.76(LCD A.A)
- ACTIVE AREA CENTER
- 1024X3(RGB)X768 DOTS
- (136.5)
- 1.0±0.3
- 4.0±0.3
- 270.3±0.5
- 272.0±0.5
- 276.0±0.5
- 279.0±0.5
- 4.6
- 14.0±0.3
- 23.0±0.3
- 161.0±0.3
- 180.0±0.3
- 184.32(LCD A.A)
- 189.4±0.3(BEZEL OPENING)
- CN2
- 1
- 5
- 5.0±0.5
- 65.95±0.5
- 20
- 1
- CN1
- 56.7±0.5
- LCM LABEL
- BL LABEL

007					
006					
005					
004					
003					
002	ADD LABEL	Stone		2015/01/13	
001	NEW DRAWING	Stone		2014/08/05	
REV	REV BY	REVISER		DATE	

PART NO.: PH102768T001-ZAA

DRAWING NAME: LMD-PH102768T001-ZAA

TITLE: LCD MODULE DRAWING

POWERTIP TECHNOLOGY CORPORATION
大正光電股份有限公司

	Design	Check	Approve
	Stone	Sam	Oliver

Unit	Scale	Page	Surface	Material	Thickness	Quantity
MM	1:1	1/1				

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

PT-A-054-01

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)	PH102768T001-ZAA	279.0 X 209.0	0.442	20	8.84
2	靜電袋(1)Antistatic Bag	--	--	--	20	--
3	上蓋(2)EPE(Cover)	FOAM000000147	520 X 315 X 65	0.16	1	0.16
4	下座(3)EPE(Bottom)	FOAM000000148	520 X 315 X 105	0.335	1	0.335
5	外紙箱(4)Carton	BX52732536CCBA	527 X 325 X 360	1.092	1	1.092
6						

2.一 整箱總重量 (Total LCD Weight in carton) :　　10.43　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

(2)上蓋
EPE(Cover)

(1)靜電袋+LCM
Antistatic Bag+LCM

(3)下座
EPE(Bottom)

(4)外紙箱
Carton
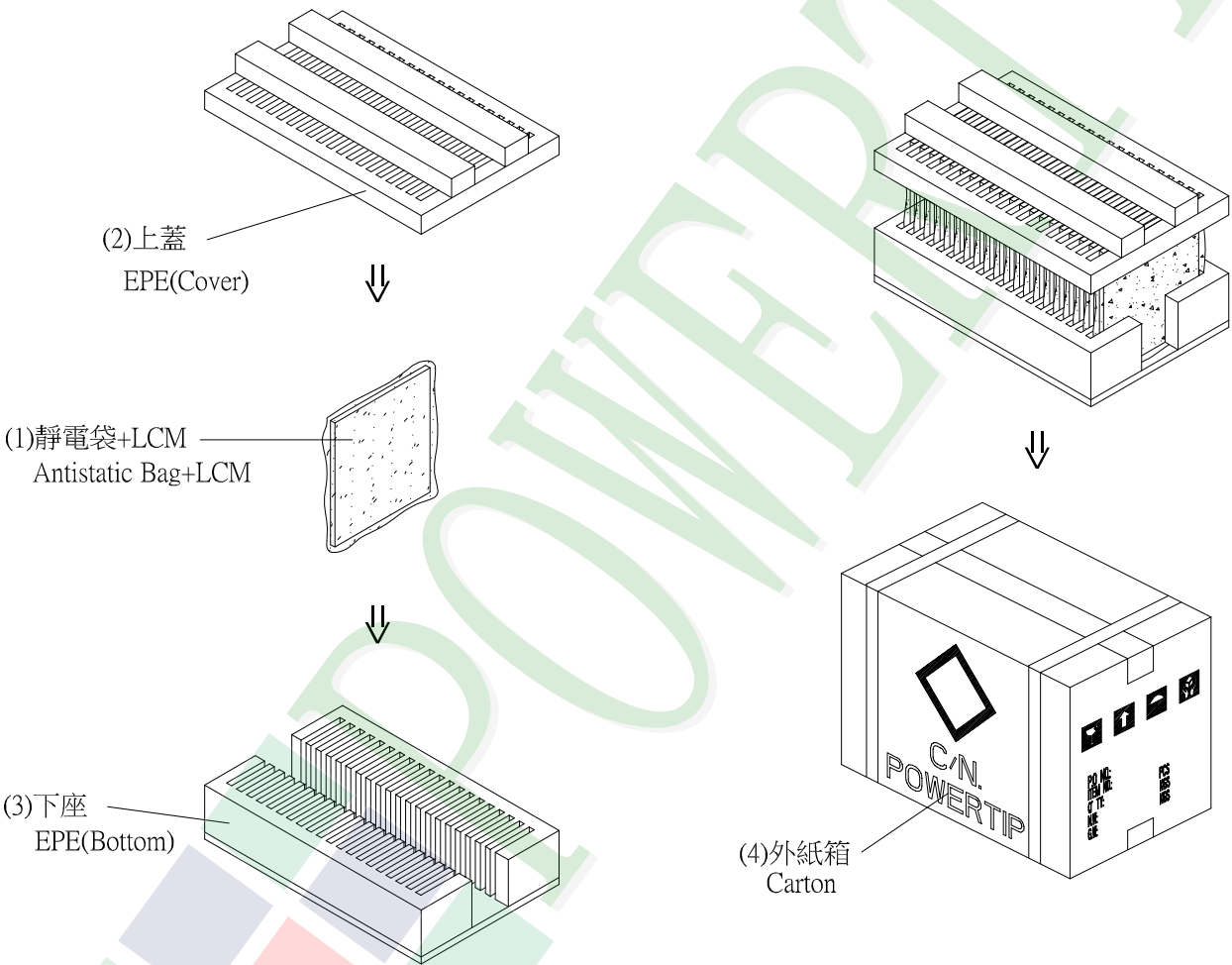
特 記 事 項 (REMARK)

4.使用供應商原包裝靜電袋。

POWERTIP TECH. CORP.