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Note : For detailed information please refer to IC data sheet : SOLOMON --- SSD1963

1. SPECIFICATIONS

1.1 Features

Item	Standard Value
Display Type	480 * 3 (RGB) * 272 Dots
LCD Type	a-Si TFT , Normally white , Transmissive type
Screen size (inch)	4.3 inch
Viewing Direction	6 O'clock
Color configuration	RGB-Strip
Backlight Type	LED B/L
Weight	70 g
Interface	Support 16-bit Parallel interface with 8080 or 6800 series MCU
Other (controller/driver IC)	SSD1963 / HX8257-A (Or Compatible IC)
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer web side : http://www.powertip.com.tw/news.php?area_id_view=1085560481/

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	105.5(W) x 67.2 (L) x 8.0(H)	mm

LCD panel

Item	Standard Value	Unit
Viewing Area	96.64 (W) x 55.456 (H)	mm
Active Area	95.04 (W) x 53.856 (L)	mm

Note : For detailed information please refer to LCM drawing

1.3 Absolute Maximum Ratings

Module

Item	Symbol	Condition	Min.	Max.	Unit
System Power Supply Voltage	VDDIO	VSS=0	-0.5	4.6	V
Input Voltage	VI	—	-0.5	4.6	V
Operating Temperature	T _{OP}	—	-20	70	°C
Storage Temperature	T _{ST}	—	-30	80	°C

1.4 DC Electrical Characteristics

Module

VSS = 0V, Ta = 25°C

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Power Supply Voltage	VDDIO	—	3.0	3.3	3.6	V
Input H/L Level Voltage	VIH	—	0.8VDDIO	—	—	V
	VIL	—	—	—	0.2VDDIO	V
Output H/L Level Voltage	VOH	—	0.8VDDIO	—	—	V
	VOL	—	—	—	0.2VDDIO	V
Supply Current	I _{DDIO}	VDDIO = 3.3 V Pattern= full display*1	—	250	350	mA

Note1 : Maximum current display

1.5 Optical Characteristics

TFT LCD Module

VDDIO= 3.3 V, Ta=25°C

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	—
Response time	Tr+Tf	25°C	—	—	36	54	ms	—
Viewing angle	Top	$\theta Y+$	CR \geq 10	—	60	—	Deg.	Note 4
	Bottom	$\theta Y-$		—	50	—		
	Left	$\theta X-$		—	60	—		
	Right	$\theta X+$		—	60	—		
Contrast ratio		CR		200	250	—	—	Note 3
Color of CIE Coordinate (With B/L)	White	X	Ta = 25°C $\theta X, \theta Y = 0^\circ$	0.28	0.33	0.38	—	Note1
		Y		0.32	0.37	0.42		
	Red	X		0.57	0.62	0.67		
		Y		0.31	0.36	0.41		
	Green	X		0.29	0.34	0.39		
		Y		0.53	0.58	0.63		
	Blue	X		0.09	0.14	0.19		
		Y		0.08	0.13	0.18		
Average Brightness Pattern=white display (With LCD)*1		IV	IF= 20 mA	340	420	—	cd/m ²	Note1
Uniformity (With LCD)*2		ΔB	IF= 20 mA	70	—	—	%	Note1

Note 1:

*1 : $\Delta B = B(\min) / B(\max) * 100\%$

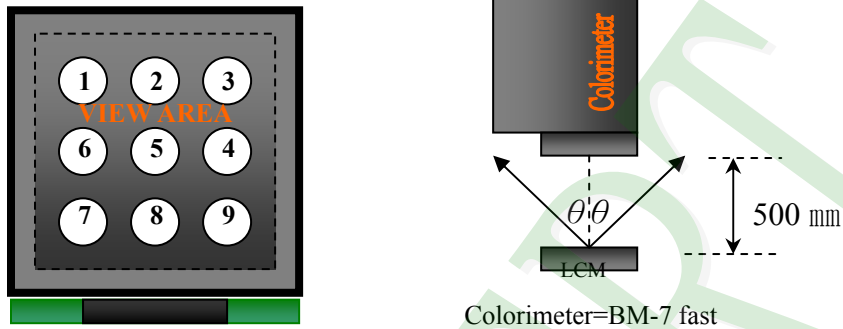
*2 : Measurement Condition for Optical Characteristics:

a : Environment: $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ / $60 \pm 20\%$ R.H , no wind , dark room below 10 Lux at typical lamp current and typical operating frequency.

b : Measurement Distance: 500 ± 50 mm , ($\theta = 0^{\circ}$)

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 $\pm 4\%$



To be measured at the center area of panel with a viewing cone of 1° by Topcon luminance meter BM-7, after 10 minutes operation (module)

Note2: Definition of response time:

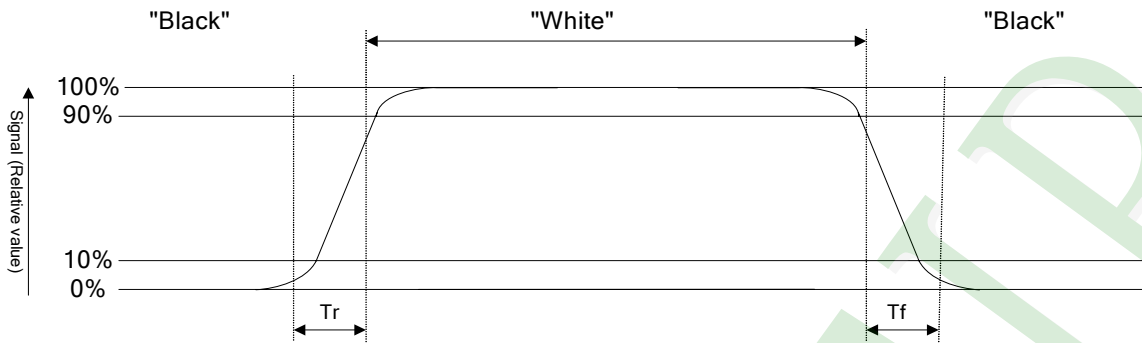
The output signals of photo detector are measured when the input signals are changed from "black" to "white"(falling time) and from "white" to "black"(rising time), respectively. The response time is defined as the time interval between the 10% and 90% of Amplitudes.

Refer to figure as below:

Normally White



Normally Black



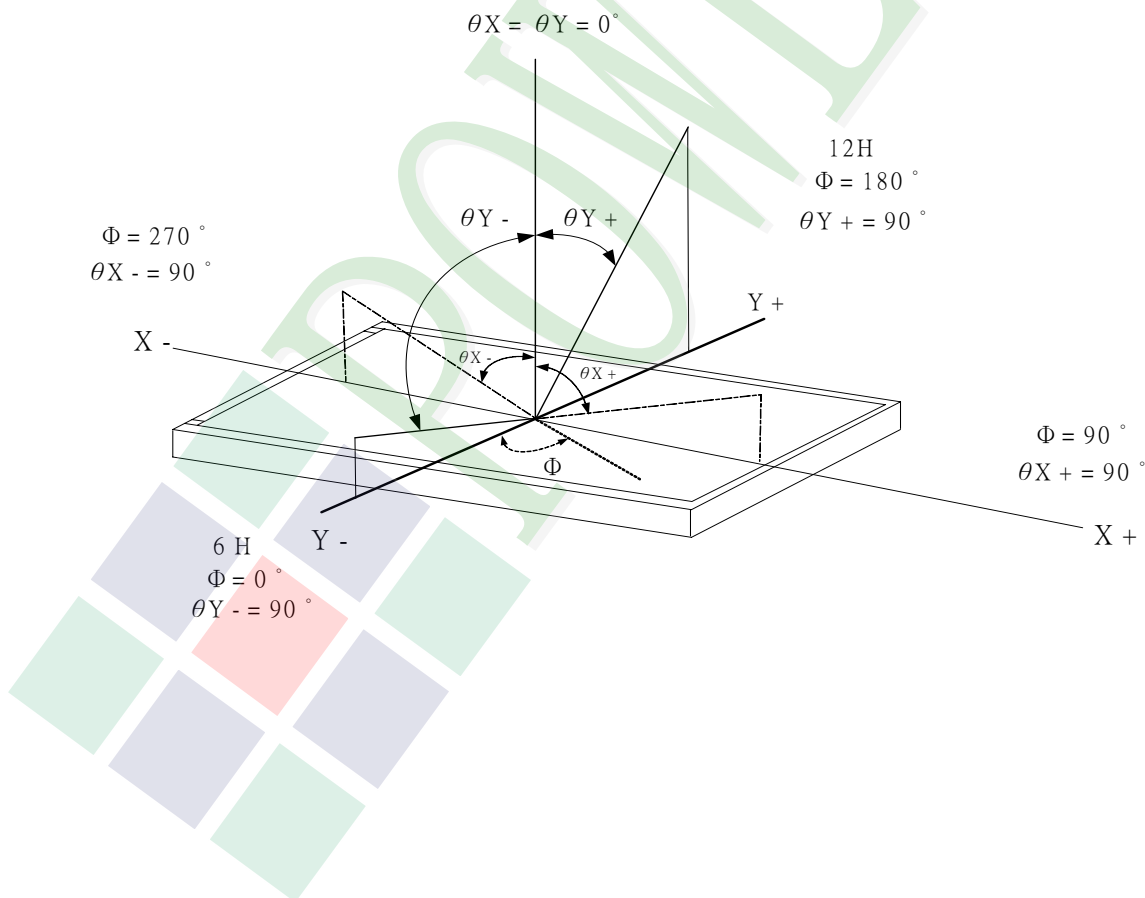
Note3: Definition of contrast ratio:

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

Maximum Ratings

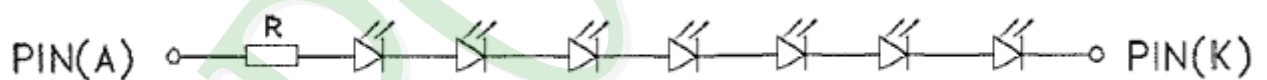
Item	Symbol	Conditions	Min.	Max.	Unit
Forward Current	IF	Ta =25°C	—	25	mA
Reverse Voltage	VR	Ta =25°C	—	5	V
Power Dissipation	Pd	Ta =25°C	—	525	mW

Backlight Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF= 20 mA	—	22.8	—	V
Average Brightness (Without LCD) *1	IV		3850	4250	—	cd/m ²
CIE Color Coordinate*1 (Without LCD)	X		0.285	0.315	0.345	—
	Y		0.282	0.312	0.342	—
Uniformity *1	△B		80	—	—	%*2
Color	White					

*1 : This value will be changed while mass production.

*2 : $\Delta B = B(\min) / B(\max)\%$



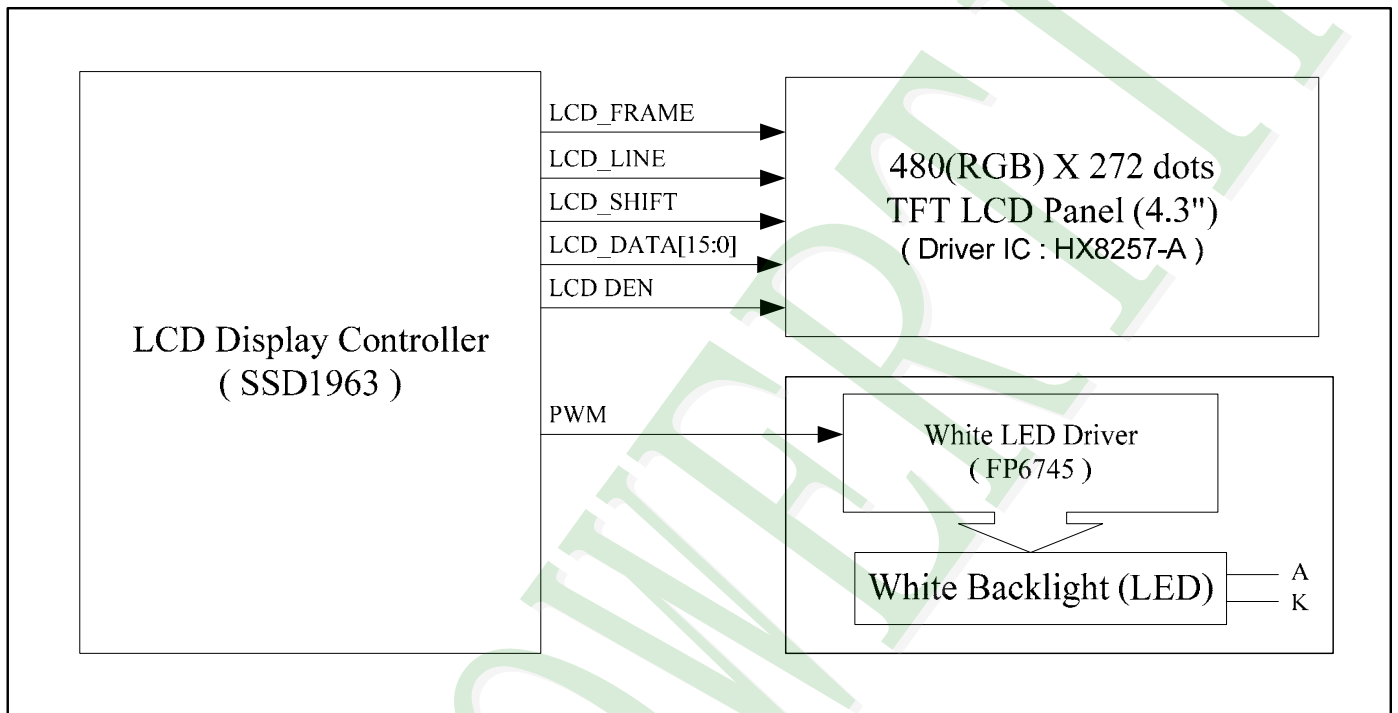
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

2.1.2 Block Diagram



INTERFACE PIN

40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0	R/W(w/R)	E(RD)	D/C	CS	REST	CONF	VDDIO	VDDIO	VSS	VSS	NC	NC

2.2 Interface Pin Description

Pin No.	Symbol	Function
1	NC	Not Connect
2	NC	Not Connect
3	VSS	Ground
4	VSS	Ground
5	VDDIO	Power Supply Voltage.
6	VDDIO	Power Supply Voltage.
7	CONF	MCU interface configuration 0: 6800 Interface 1: 8080 Interface
8	RESET	Master synchronize reset.
9	CS	Chip select.
10	D/C	Data/Command select.
11	E (RD)	6800 mode: E (enable signal) 8080 mode: RD (read strobe signal)
12	R/W (W/R)	6800 mode: R/W 0: Write cycle 1: Read cycle 8080 mode: WR (write strobe signal)
13	D0	Data bus.
14	D1	Data bus.
15	D2	Data bus.
16	D3	Data bus.
17	D4	Data bus.
18	D5	Data bus.
19	D6	Data bus.
20	D7	Data bus.
21	D8	Data bus.
22	D9	Data bus.
23	D10	Data bus.



Pin No.	Symbol	Function
24	D11	Data bus.
25	D12	Data bus.
26	D13	Data bus.
27	D14	Data bus.
28	D15	Data bus.
29	NC	Not Connect
30	NC	Not Connect
31	NC	Not Connect
32	NC	Not Connect
33	NC	Not Connect
34	NC	Not Connect
35	NC	Not Connect
36	NC	Not Connect
37	NC	Not Connect
38	NC	Not Connect
39	NC	Not Connect
40	NC	Not Connect

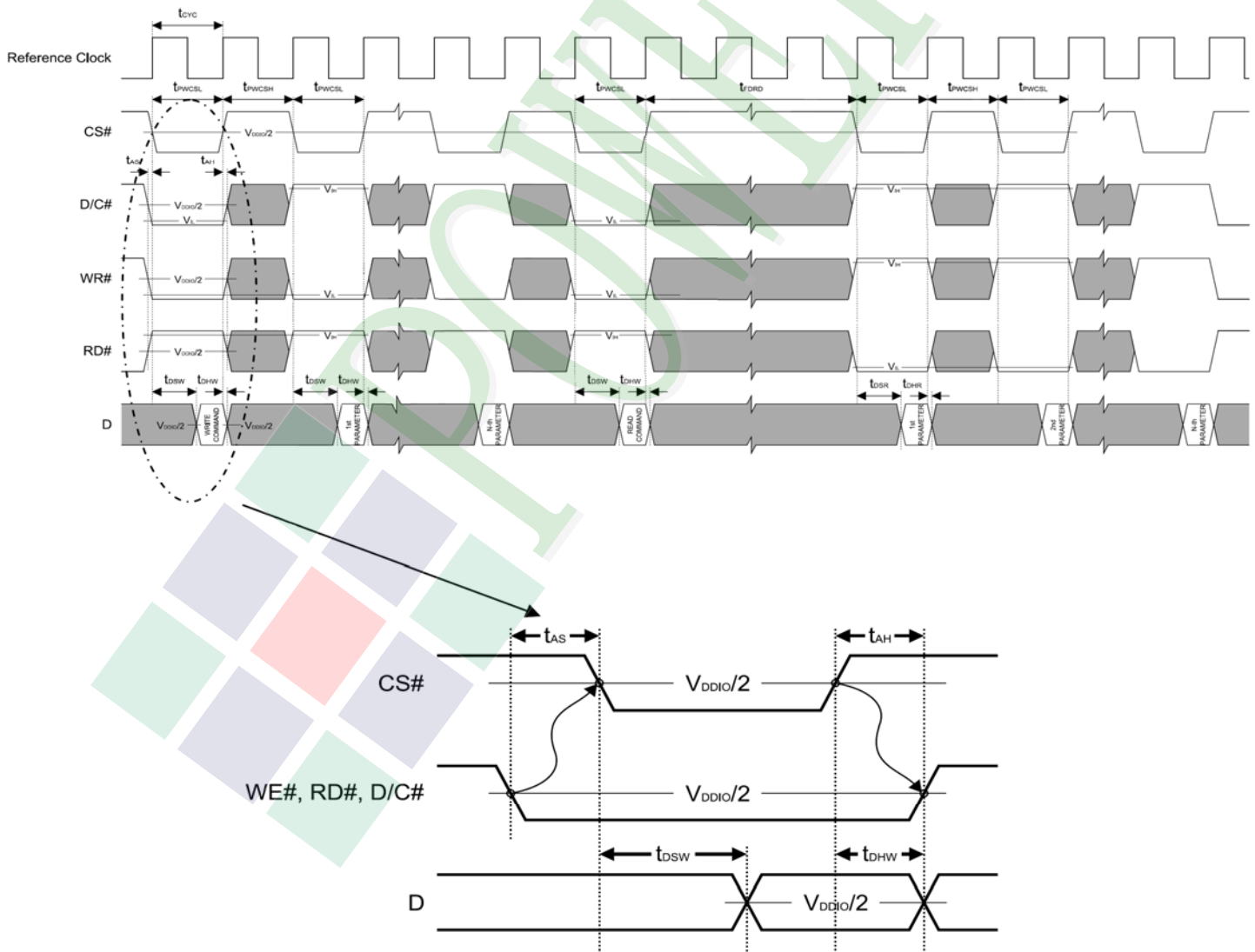
2.3 Timing Characteristics

2.3.1 8080 Mode

8080 Mode Timing

Symbol	Parameter	Min	Typ	Max	Unit
t_{cyc}	Reference Clock Cycle Time	9	-	-	ns
t_{PWCSL}	Pulse width CS# low	1	-	-	t_{cyc}
t_{PWCSH}	Pulse width CS# high	1	-	-	t_{cyc}
t_{FDRD}	First Read Data Delay	5	-	-	t_{cyc}
t_{AS}	Address Setup Time	1	-	-	ns
t_{AH}	Address Hold Time	1	-	-	ns
t_{DSW}	Data Setup Time	4	-	-	ns
t_{DHW}	Data Hold Time	1	-	-	ns
t_{DSR}	Data Access Time	-	-	5	ns
t_{DHR}	Output Hold time	1	-	-	ns

8080 Mode Timing Diagram

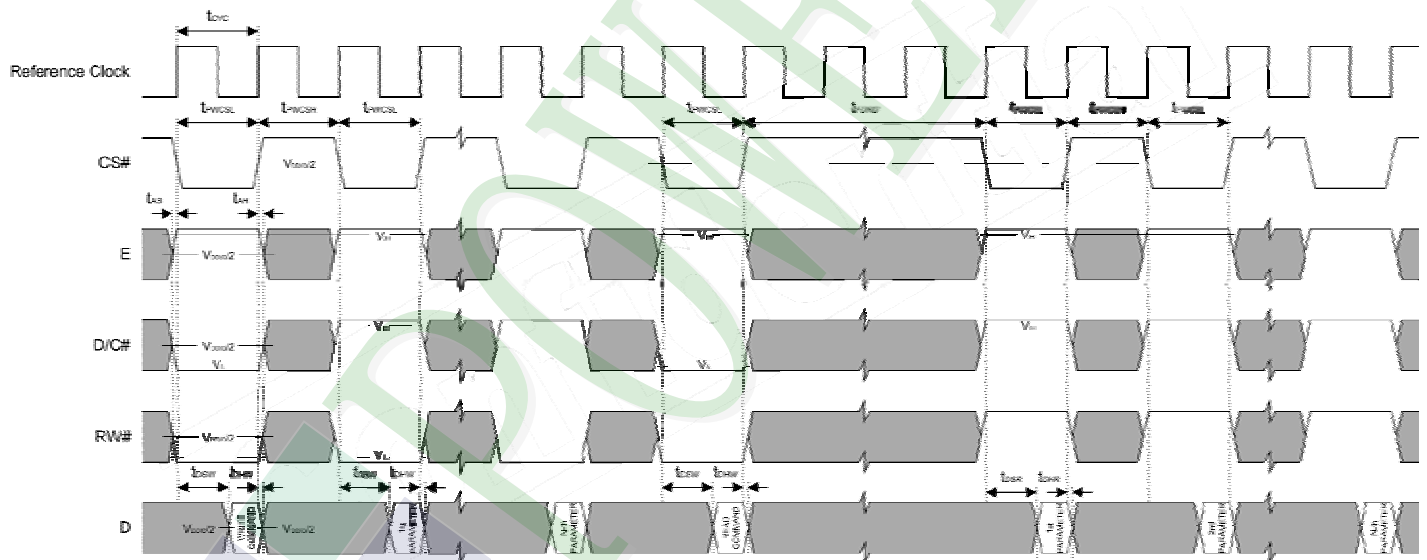


2.3.1 6800 Mode

6800 Mode Timing

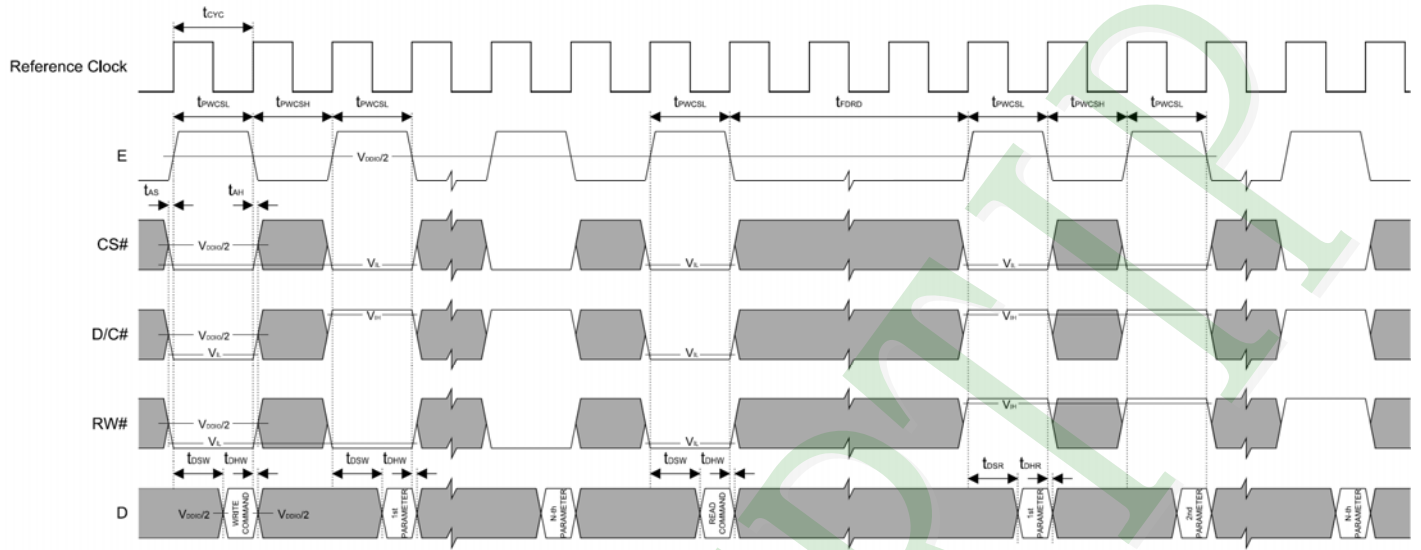
Symbol	Parameter	Min	Typ	Max	Unit
t_{cyc}	Reference Clock Cycle Time	9	-	-	ns
t_{PWCSL}	Pulse width CS# or E low	1	-	-	t_{cyc}
t_{PWCSH}	Pulse width CS# or E high	1	-	-	t_{cyc}
t_{FDRD}	First Data Read Delay	5	-	-	t_{cyc}
t_{AS}	Address Setup Time	1	-	-	ns
t_{AH}	Address Hold Time	1	-	-	ns
t_{DSW}	Data Setup Time	4	-	-	ns
t_{DHW}	Data Hold Time	1	-	-	ns
t_{DSR}	Data Access Time	-	-	5	ns
t_{DHR}	Output Hold time	1	-	-	ns

6800 Mode Timing Diagram (Use CS# as Clock)



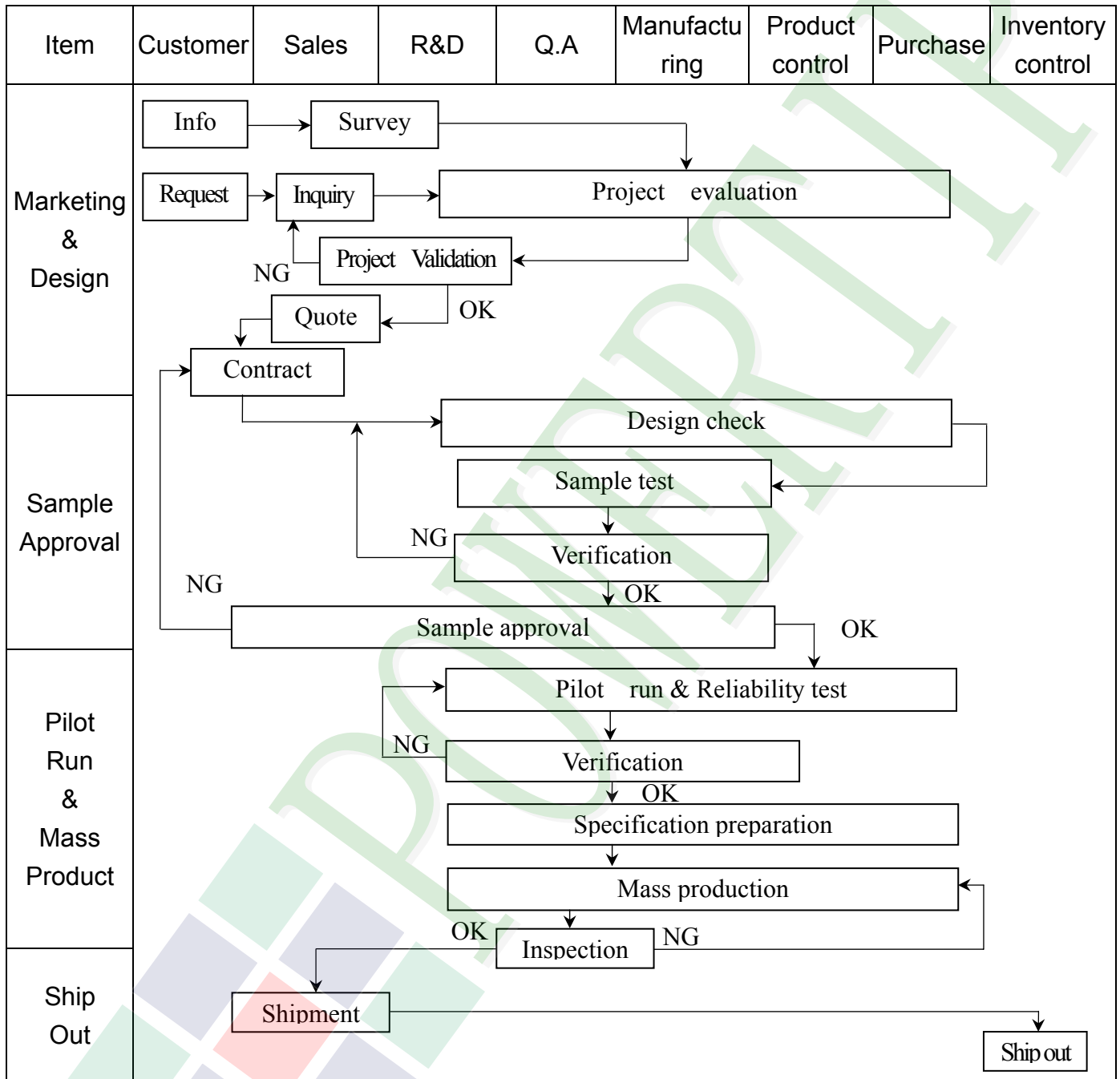


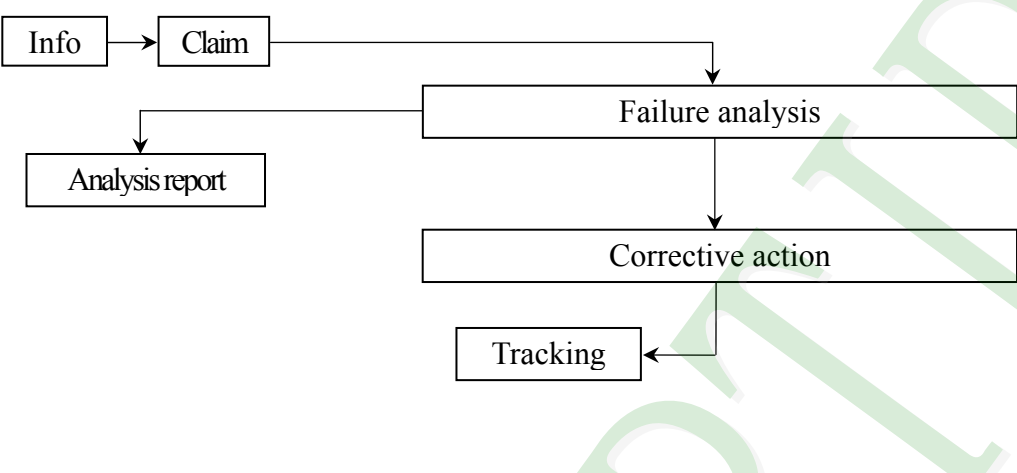
6800 Mode Timing Diagram (Use E as Clock)



3. QUALITY ASSURANCE SYSTEM

3.1 Quality Assurance Flow Chart



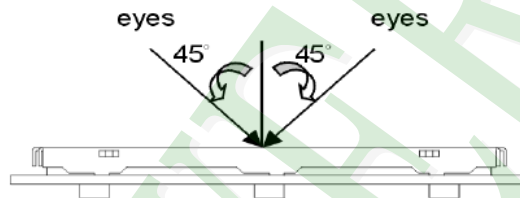
Item	Customer	Sales	R&D	Q.A	Manufacturing	Product control	Purchase	Inventory control
Sales Service	 <pre> graph TD Info[Info] --> Claim[Claim] Claim --> Failure[Failure analysis] Failure --> Analysis[Analysis report] Failure --> Corrective[Corrective action] Corrective --> Tracking[Tracking] </pre>							
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

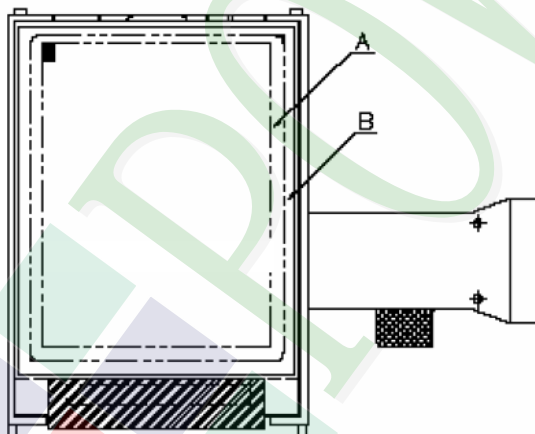
- ◆Scope : The document shall be applied to TFT-LCD Module for 3.5" ~10" (Ver.B01).
- ◆Inspection Standard : MIL-STD-105E Table Normal Inspection Single Sampling Level II.
- ◆Equipment : Gauge 、MIL-STD 、Powertip Tester 、Sample
- ◆Defect Level : Major Defect AQL : 0.4 ; Minor Defect AQL : 1.5
- ◆OUT Going 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)

◆ Specification For TFT-LCD Module 3.5" ~10" :

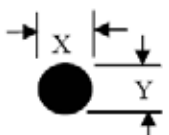
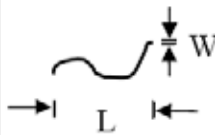
(Ver.B01)

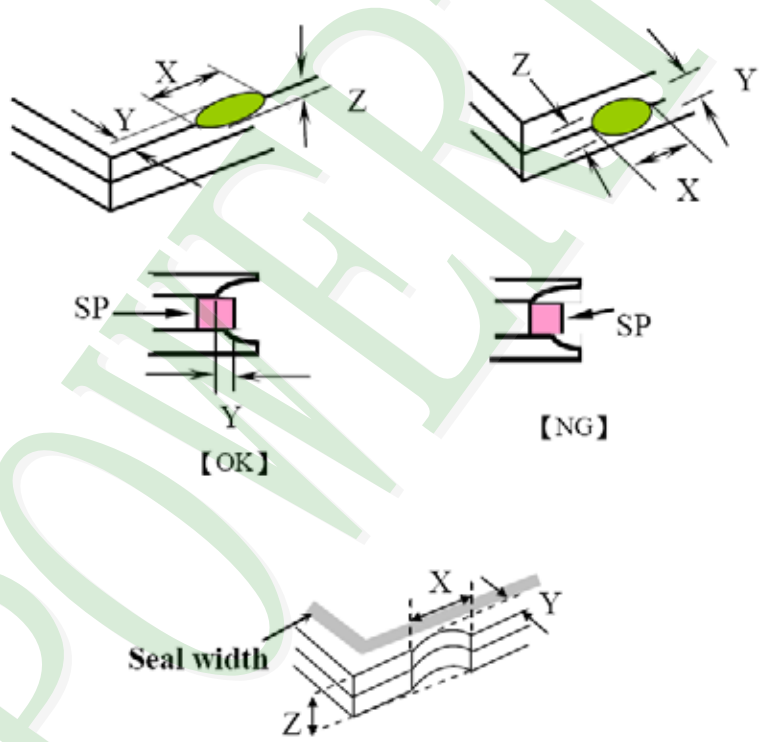
NO	Item	Criterion	Level										
01	Product condition	1. 1 The part number is inconsistent with work order of production.	Major										
		1. 2 Mixed product types.	Major										
		1. 3 Assembled in inverse direction.	Major										
02	Quantity	2. 1 The quantity is inconsistent with work order of 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 border="1"> <thead> <tr> <th>Item</th> <th>Acceptance (Q'ty)</th> </tr> </thead> <tbody> <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>Total</td> <td>≤ 7</td> </tr> </tbody> </table>	Item	Acceptance (Q'ty)	Bright Dot	≤ 4	Dark Dot	≤ 5	Joint Dot	≤ 3	Total	≤ 7	Minor
		Item	Acceptance (Q'ty)										
		Bright Dot	≤ 4										
		Dark Dot	≤ 5										
		Joint Dot	≤ 3										
Total	≤ 7												
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.													



◆ Specification For TFT-LCD Module 3.5" ~10" :

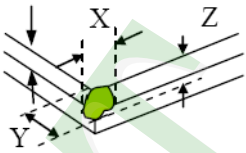
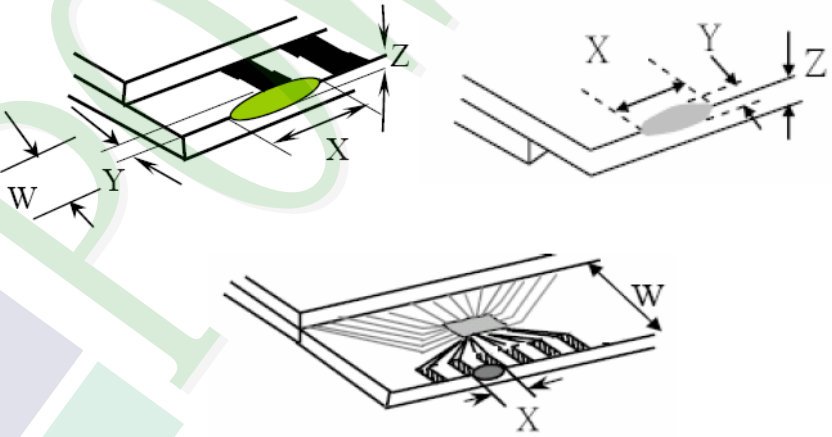
(Ver.B01)

NO	Item	Criterion	Level																																					
06	<p>Black or white dot、scratch、contamination</p> <p>Round type</p>  <p>$\Phi = (x + y) / 2$</p> <p>Line type</p> 	<p>6.1 Round type (Non-display or display) :</p> <table border="1"> <thead> <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> </thead> <tbody> <tr> <td>$\Phi \leq 0.25$</td> <td colspan="2">Ignore</td> </tr> <tr> <td>$0.25 < \Phi \leq 0.50$</td> <td>5</td> <td rowspan="3">Ignore</td> </tr> <tr> <td>$\Phi > 0.50$</td> <td>0</td> </tr> <tr> <td>Total</td> <td>5</td> </tr> </tbody> </table> <p>6.2 Line type(Non-display or display) :</p> <table border="1"> <thead> <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> </thead> <tbody> <tr> <td>---</td> <td>$W \leq 0.03$</td> <td>Ignore</td> <td rowspan="5">Ignore</td> </tr> <tr> <td>$L \leq 10.0$</td> <td>$0.03 < W \leq 0.05$</td> <td>4</td> </tr> <tr> <td>$L \leq 5.0$</td> <td>$0.05 < W \leq 0.10$</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> </tbody> </table>	Dimension (diameter : Φ)	Acceptance (Q'ty)		A area	B area	$\Phi \leq 0.25$	Ignore		$0.25 < \Phi \leq 0.50$	5	Ignore	$\Phi > 0.50$	0	Total	5	Length (L)	Width (W)	Acceptance (Q'ty)		A area	B area	---	$W \leq 0.03$	Ignore	Ignore	$L \leq 10.0$	$0.03 < W \leq 0.05$	4	$L \leq 5.0$	$0.05 < W \leq 0.10$	2	---	$W > 0.10$	As round type	Total		5	Minor
Dimension (diameter : Φ)	Acceptance (Q'ty)																																							
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Total		5																																						
07	<p>Polarizer Bubble</p>	<table border="1"> <thead> <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> </thead> <tbody> <tr> <td>$\Phi \leq 0.25$</td> <td>Ignore</td> <td rowspan="5">Ignore</td> </tr> <tr> <td>$0.25 < \Phi \leq 0.50$</td> <td>4</td> </tr> <tr> <td>$0.50 < \Phi \leq 0.80$</td> <td>1</td> </tr> <tr> <td>$\Phi > 0.80$</td> <td>0</td> </tr> <tr> <td>Total</td> <td>5</td> </tr> </tbody> </table>	Dimension (diameter : Φ)	Acceptance (Q'ty)		A area	B area	$\Phi \leq 0.25$	Ignore	Ignore	$0.25 < \Phi \leq 0.50$	4	$0.50 < \Phi \leq 0.80$	1	$\Phi > 0.80$	0	Total	5	Minor																					
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$0.50 < \Phi \leq 0.80$	1																																							
$\Phi > 0.80$	0																																							
Total	5																																							

NO	Item	Criterion	Level						
08	The crack of glass	<p>Symbols :</p> <p>X : The length of crack Z : The thickness of crack t : The thickness of glass</p> <p>Y : The width of crack. W : terminal length a : LCD side length</p>	Minor						
		<p>8.1 General glass chip :</p> <p>8.1.1 Chip on panel surface and crack between panels:</p>  <table border="1" data-bbox="542 1545 1340 1836"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq a$</td> <td>Crack can't enter viewing area</td> <td>$\leq 1/2 t$</td> </tr> <tr> <td>$\leq a$</td> <td>Crack can't exceed the half of SP width.</td> <td>$1/2 t < Z \leq 2 t$</td> </tr> </tbody> </table>		X	Y	Z	$\leq a$	Crack can't enter viewing area	$\leq 1/2 t$
X	Y	Z							
$\leq a$	Crack can't enter viewing area	$\leq 1/2 t$							
$\leq a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$							

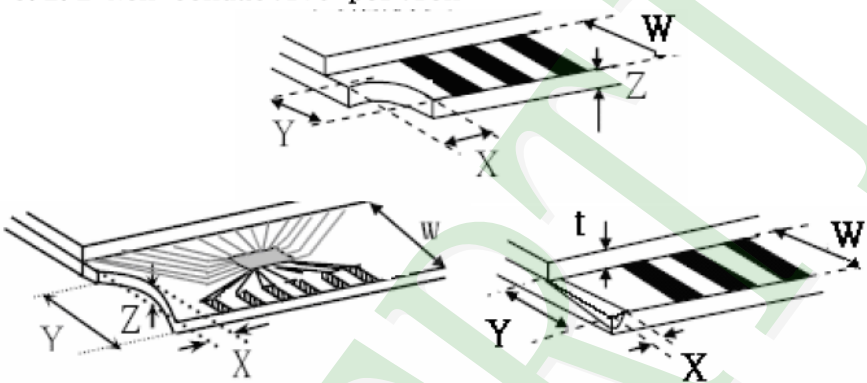
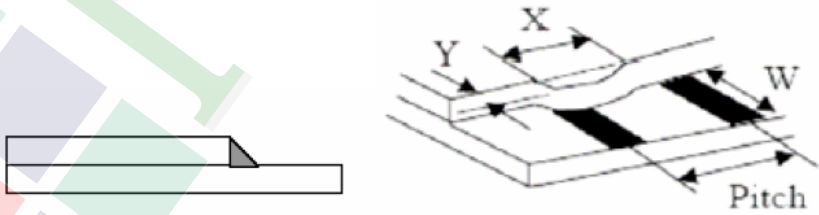
◆ Specification For TFT-LCD Module 3.5" ~10" :

(Ver.B01)

NO	Item	Criterion	Level												
08	The crack of glass	<p>Symbols :</p> <p>X : The length of crack Z : The thickness of crack t : The thickness of glass</p> <p>Y : The width of crack. W : terminal length a : LCD side length</p> <hr/> <p>8.1.2 Corner crack :</p>  <table border="1" data-bbox="525 757 1334 1048"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq 1/5 a$</td> <td>Crack can't enter viewing area</td> <td>$Z \leq 1/2 t$</td> </tr> <tr> <td>$\leq 1/5 a$</td> <td>Crack can't exceed the half of SP width.</td> <td>$1/2 t < Z \leq 2 t$</td> </tr> </tbody> </table>	X	Y	Z	$\leq 1/5 a$	Crack can't enter viewing area	$Z \leq 1/2 t$	$\leq 1/5 a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$				
		X	Y	Z											
$\leq 1/5 a$	Crack can't enter viewing area	$Z \leq 1/2 t$													
$\leq 1/5 a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$													
		<p>8.2 Protrusion over terminal :</p> <p>8.2.1 Chip on electrode pad :</p>  <table border="1" data-bbox="563 1680 1343 1850"> <thead> <tr> <th></th> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>Front</td> <td>$\leq a$</td> <td>$\leq 1/2 W$</td> <td>$\leq t$</td> </tr> <tr> <td>Back</td> <td>$\leq a$</td> <td>$\leq W$</td> <td>$\leq 1/2 t$</td> </tr> </tbody> </table>		X	Y	Z	Front	$\leq a$	$\leq 1/2 W$	$\leq t$	Back	$\leq a$	$\leq W$	$\leq 1/2 t$	Minor
	X	Y	Z												
Front	$\leq a$	$\leq 1/2 W$	$\leq t$												
Back	$\leq a$	$\leq W$	$\leq 1/2 t$												

◆ Specification For TFT-LCD Module 3.5" ~10" :

(Ver.B01)

NO	Item	Criterion	Level												
08	The crack of glass	<p>Symbols :</p> <p>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</p> <hr/> <p>8.2.2 Non-conductive portion :</p>  <table border="1" data-bbox="630 963 1260 1120"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq 1/3 a$</td> <td>$\leq W$</td> <td>$\leq t$</td> </tr> </tbody> </table> <p>⊙ If the chipped area touches the ITO terminal, over 2/3 of the ITO must remain and be inspected according to electrode terminal specifications.</p> <p>8.2.3 Glass remain :</p>  <table border="1" data-bbox="550 1736 1244 1881"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq a$</td> <td>$\leq 1/3 W$</td> <td>$\leq t$</td> </tr> </tbody> </table>	X	Y	Z	$\leq 1/3 a$	$\leq W$	$\leq t$	X	Y	Z	$\leq a$	$\leq 1/3 W$	$\leq t$	Minor
		X	Y	Z											
$\leq 1/3 a$	$\leq W$	$\leq t$													
X	Y	Z													
$\leq a$	$\leq 1/3 W$	$\leq t$													

◆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

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 $320\pm 10^{\circ}\text{C}$ 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 $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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.

Approve	Check	Contact
Linda	Stone	Mag

Documents NO. PKG-PH480272T-005-I09Q

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

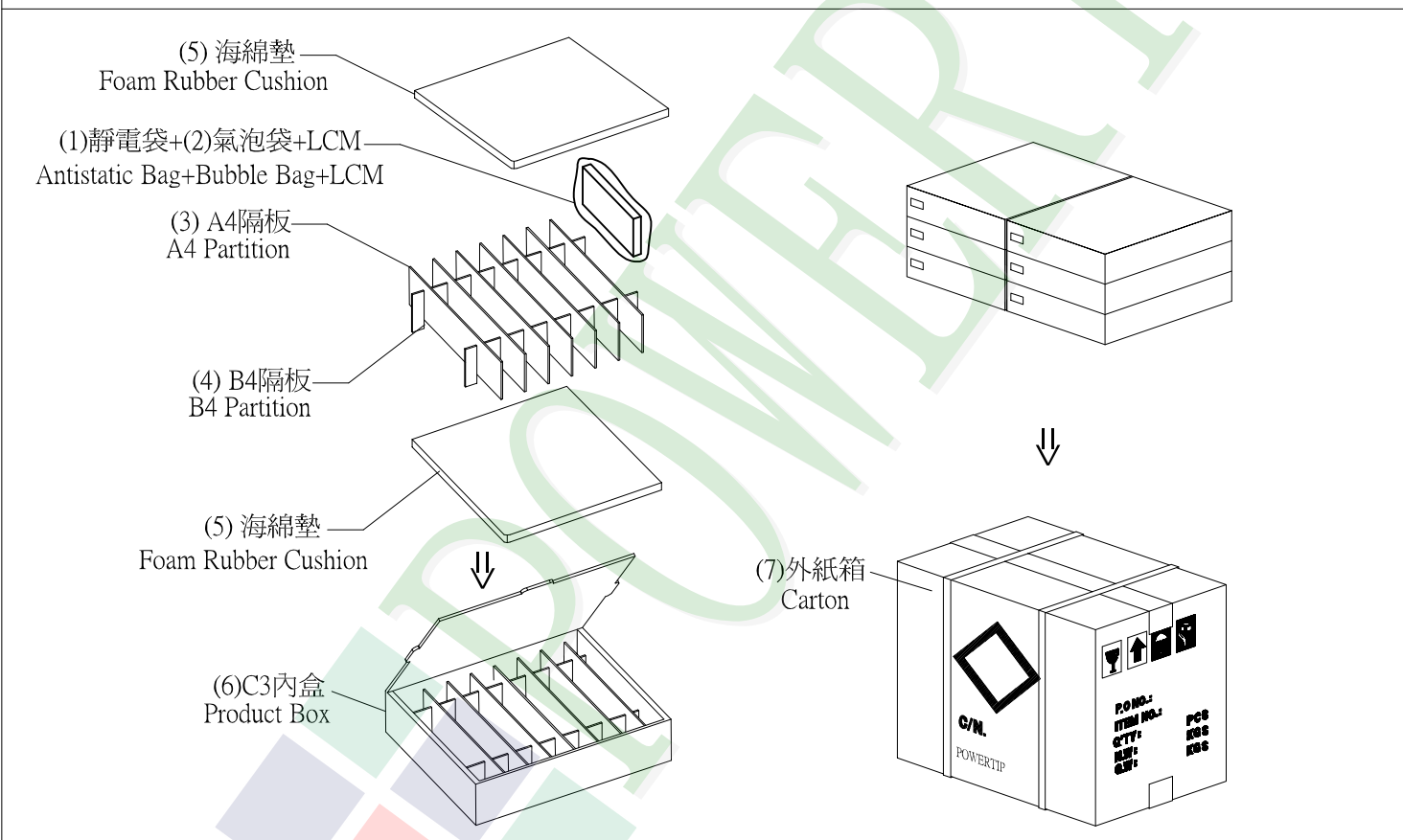
No.	Item	Model	Dimensions (mm)	1Pcs Weight	Quantity	Total Weight
1	成品 (LCM)	PH480272T-005-I09Q	105.5 X 67.2	0.07	84	5.88
2	氣泡袋(1)Bubble Bag	BAG170150BRABA	170 X 150	0.0045	84	0.378
3	A4隔板(2)A4 Partition	BX24500070BNBA	245 X 70 X 2.5	0.014	42	1.092
4	B4隔板(3)B4 Partition	BX29300070BLBA	293 X 70 X 2.5	0.012	12	0.144
5	海綿墊(4)Foam Rubber Cushion	OTFOAM00006ABA	290 X 240 X 10	0.02	12	0.24
6	C3內盒(5)Product Box	BX31025510AABA	310 X 255 X 100	0.263	6	1.578
7	外紙箱(6)Carton	BX52732536CCBA	527 X 325 X 360	1.092	1	1.092
8						
9						

2. 一整箱總重量 (Total LCD Weight in carton) : 10.4 Kg±10%

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

(1) Quantity Of Spacer : A4隔板 X 7 , B4隔板 X 2

(2) Total LCM quantity in carton : quantity per box 14 x no of boxes 6 = 84



特 記 事 項 (REMARK)

1. Label Specifications :

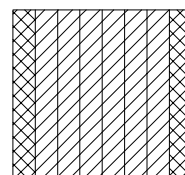
MODEL:
LOT NO:
QUANTITY:
CHECK:

2. 每隔放兩片模組,前後隔各放一片模組。
(如3.放置格示意圖)

2. 2 LCM are placed on every. The first and the last slot should be one pcs
(See remarks 3 on packaging specifications)

3. 放置格示意圖:

3. Each divider is placed inside a product Box



▨ 模組(LCMx2PCS)

▩ 模組(LCMx1PCS)