POWERTIP TECH. CORP.

SPECIFICATIONS

CUSTOMER	:	CUS999
SAMPLE CODE	:	PS320240WRF-HNNH42
MASS PRODUCTION CODE	:	PG320240WRFHNNHS1Q
SAMPLE VERSION	:	01
SPECIFICATIONS EDITION	:	001
DRAWING NO. (Ver.)	:	LMD-PG320240WRFHNNHS1Q (Ver:001)
PACKAGING NO. (Ver.)	:	PKG-PG320240WRFHNNHS1Q (Ver:001)

Customer Approved

Date:

Approved	Checked	Designer
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POWERTIP 2008.07.15 TW RD APR

☐ Preliminary specification for design input

■ Specification for sample approval

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History of Version

Date (mm / dd / yyyy)	Ver.	Edi.	Description	Page	Design by
02/03/2006	0	0	Mass production.	-	Peter
07/01/2008	01	001	Modify LCD. Modify 1.4 DC Electrical Characteristics. Modify 1.5 Optical Characteristics. Modify 1.6 Backlight Characteristics. Modify 3.2 Inspection Specification. Modify 4.1 Reliability Test Condition	- 5 6 11 20~25 26	Louis

Total：27 Page

Contents

Note：For detailed information please refer to IC data sheet：SITRONIX---ST8016-F3
SITRONIX---ST8024-F4

1. SPECIFICATIONS

1.1 Features

Item	Standard Value
Display Type	320 * 240 Dots
LCD Type	FSTN , Positive Transflective
Driver Condition	LCD Module: 1/240 Duty, 1/14 Bias
Viewing Direction	6 O'clock
Backlight	White LED
Weight	65 g
Interface	4 bit parallel data input
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer web side : http://www.powertip.com.tw/news/LatestNews.asp
Driver IC	SITRONIX ST8016-F3, ST8024-F4

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	92.0 (L) * 71.3 (w) * 9.0 (H)(Max)	mm
Viewing Area	78.78 (L) * 59.58 (w)	mm
Active Area	76.78 (L) * 57.58 (w)	mm
Dot Size	0.22 (L) * 0.22 (w)	mm
Dot Pitch	0.24 (L) * 0.24 (w)	mm

Note：For detailed information please refer to LCM drawing

1.3 Absolute Maximum Ratings

Item	Symbol	Condition	Min.	Max.	Unit
Power Supply Voltage	V_{DD}	—	-0.3	7.0	V
LCD Driver Supply Voltage	VLCD-VSS	—	-0.3	+25	V
Input Voltage	V_{IN}	—	-0.3	V_{DD}+0.3	V
Operating Temperature	T_{OP}	—	-20	70	°C
Storage Temperature.	T_{ST}	—	-30	80	°C
Storage Humidity	H_D	Ta＜40 ℃	20	90	%RH

1.4 DC Electrical Characteristics

V_{DD} = 4.5~5.5V，V_{SS} = 0V，Ta = 25°C

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Logic Supply Voltage	V_{DD}	—	4.5	5.0	5.5	V
“H” Input Voltage	V_{IH}	—	0.8 V_{DD}	-	-	V
“L” Input Voltage	V_{IL}	—	-	-	0.2 V_{DD}	V
“H” Output Voltage	V_{OH}	—	V_{DD} -0.4	-	-	V
“L” Output Voltage	V_{OL}	—	-	-	0.4	V
Supply current	I_{DD}	V_{DD} =5.0V , Vop =20.8V Pattern= Full display	-	10	-	mA
		V_{DD} =5.0V , Vop =20.8V Pattern= Horizontal line*1	-	30	45	mA
LCM driving voltage	V_{OP} *2	-20°C	20.6	20.8	21.0	V
		25°C	20.6	20.8	21.0	
		70°C	19.6	19.8	20.0	

Test :Need to make sure that there is no flicker and ripper phenomenon when setting the frame frequency in your set.

NOTE: *1 The Maximum current display;

*2 The VOP test point is VOUT-GND.

1.5 Optical Characteristics

LCD Panel: 1/240 Duty, 1/14 Bias, V_{LCD} = 20.8 V, Ta = 25°C

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit	Reference
Response Time	Rise	tr	C≥2.0, ∅ =270°,	-	150	225	ms	Note2
	Fall	tf		-	290	435		
Viewing angle range	Top	ΘY+		-	45		Deg.	Note 1
	Bottom	ΘY-		-	40	-		
	Left	ΘX-		-	45	-		
	Right	ΘX+		-	45	-		
Contrast Ratio		CR	θ = 0°, ∅ =270°,	-	5	-	-	Note 3
Average Brightness (with B/L) *2		IV	IF =120mA	15	20	-	cd/m^2	-
CIE Color Coprdinate (with B/L) *2		X		0.25	0.31	0.37	-	Note 4
		Y		0.29	0.35	0.41		
Uniformity *1		△B		70	-	-	%	-

Note 4:

1：△B=B(min) / B(max)*100%

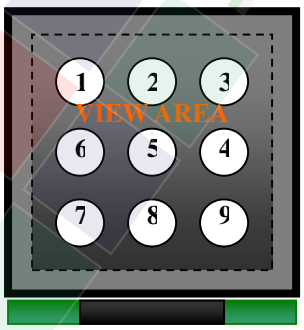
2：Measurement Condition for Optical Characteristics:

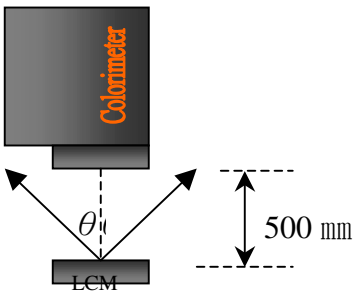
a：Environment: 25℃±5℃ / 60±20%R.H，no wind，dark room below 10 Lux at typical lamp current and typical operating frequency.

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%



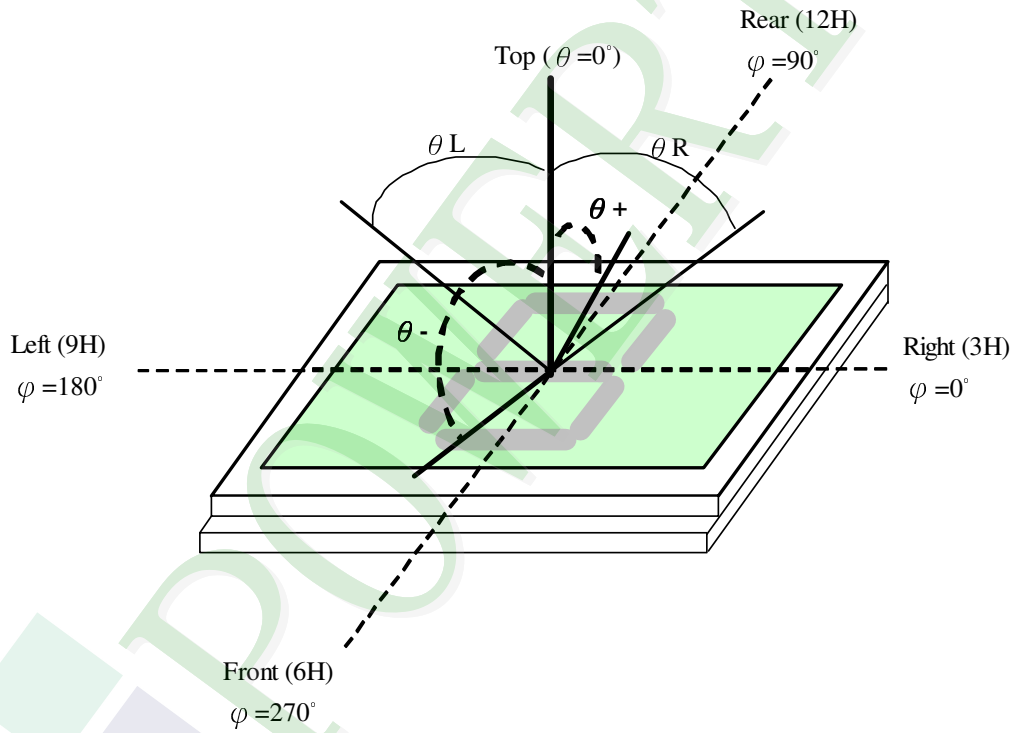


Colorimeter=BM-7 fast

Note 1.

Optical characteristics-2

Viewing angle

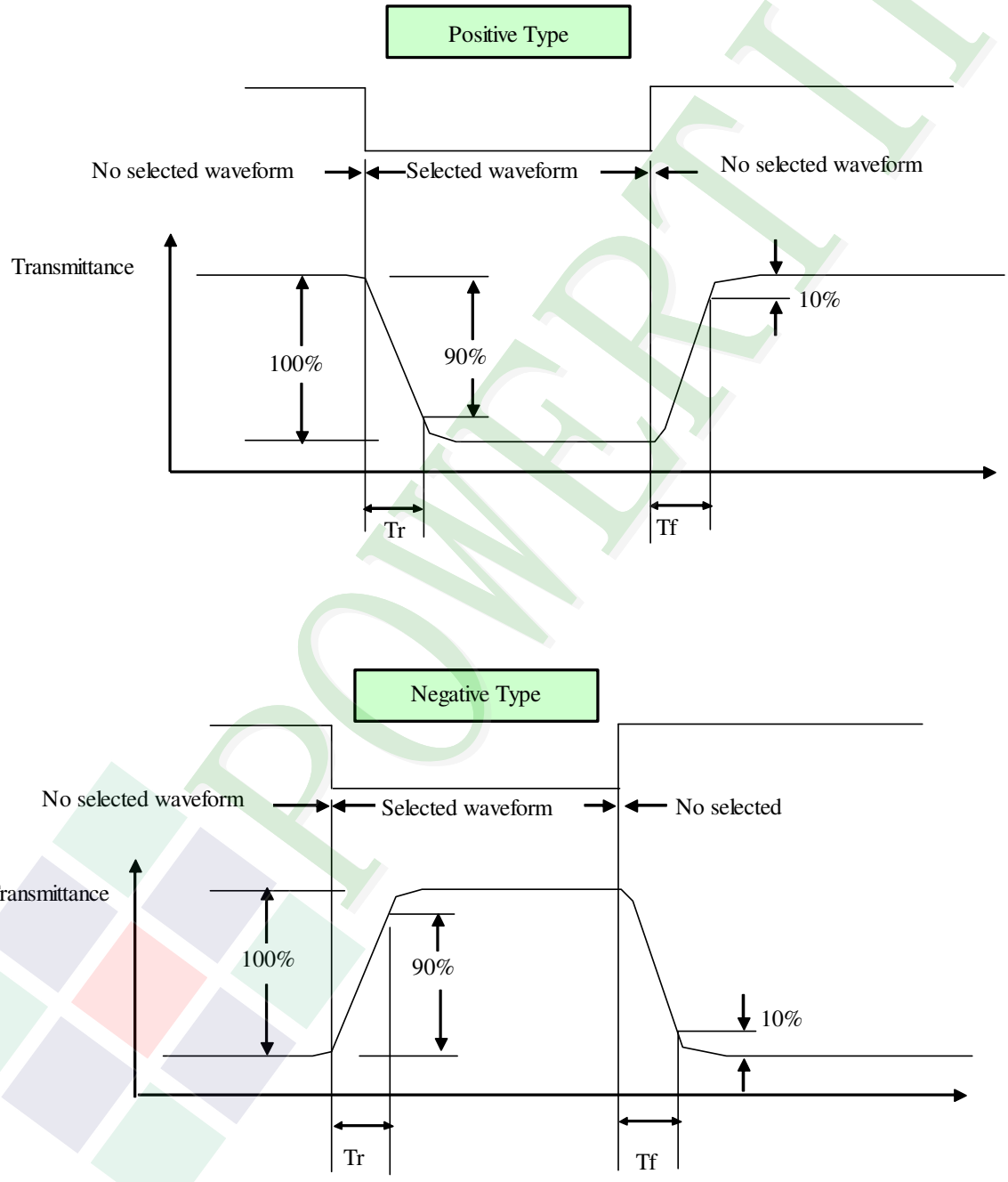


Viewing angle

Note 2.

Optical characteristics-3

Fig.2 Definition of response time



Electrical characteristics-2

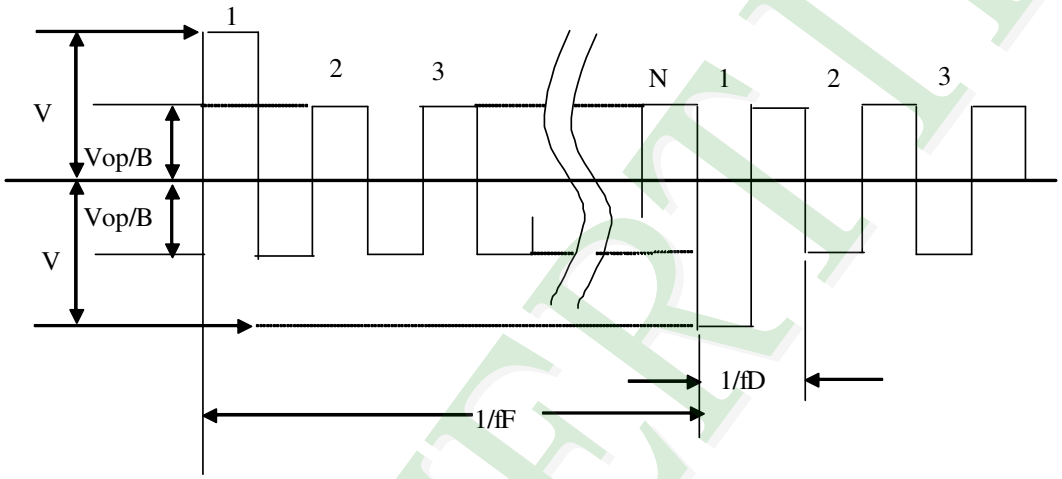
※2 Drive waveform

Vop: Drive voltage　　fF: Frame frequency

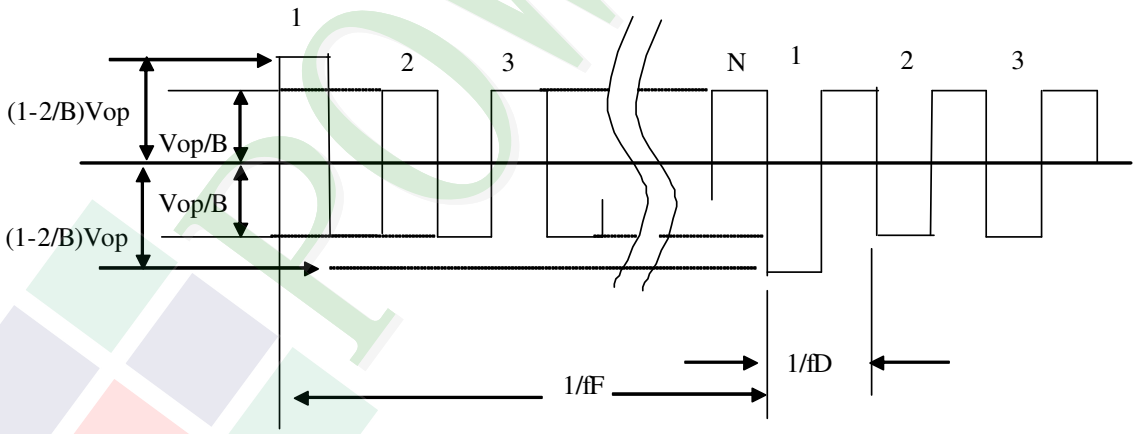
1/B: Bias　　fD: Drive frequency

N: Duty

(1) Selected waveform



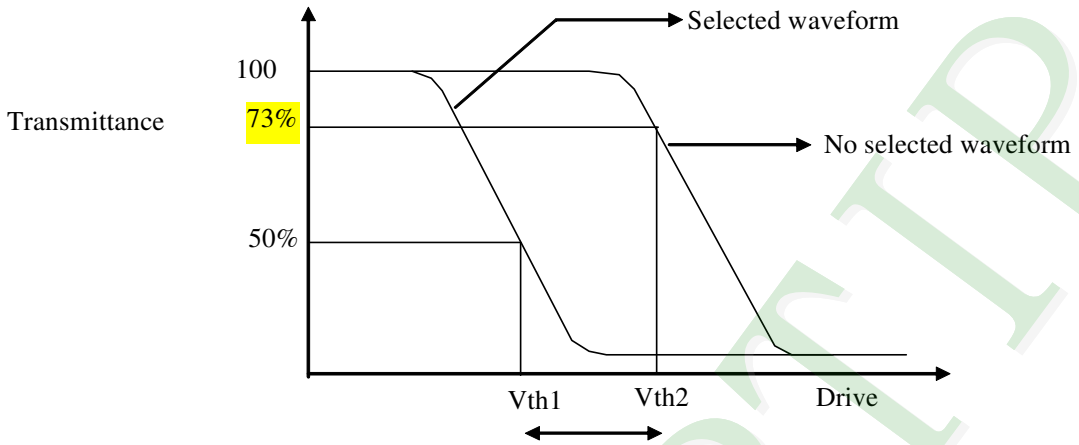
(2) Non- Selected wave form



Note:

Frame frequency is defined as follows: Common side supply voltage peak - to - peak /2 = 1 period

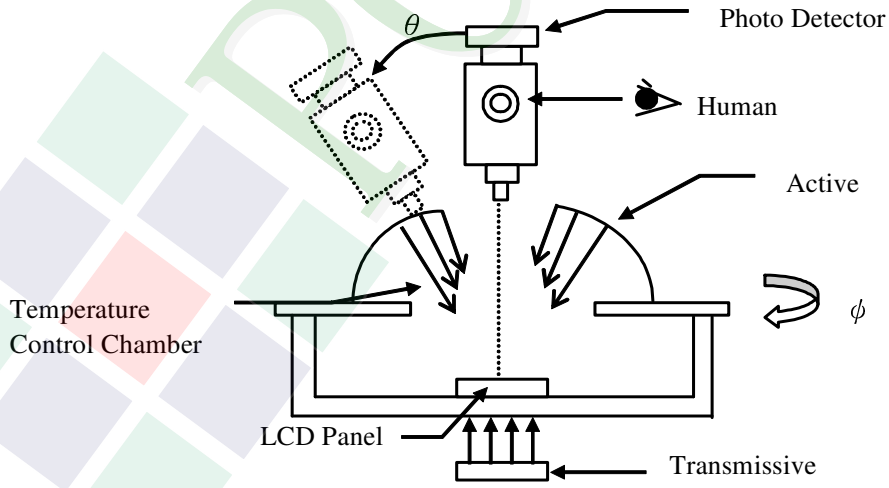
Note 3. : Definition of Vth



	Vth1	Vth2
View direction	10°	40°
Drive waveform	(Selected waveform)	(No selected waveform)
Transmittance	50%	73%

※1 Contrast ratio
= (Brightness in OFF state) / (Brightness in ON state)

Outline of Electro-Optical Characteristics Measuring System



Measuring System: Autronic DMS-803

1.6 Backlight Characteristics

LCD Module with LED Backlight

Maximum Ratings

Item	Symbol	Conditions	Min.	Max.	Unit
Forward Current	IF	Ta =25℃	-	150	mA
Reverse Voltage	VR	Ta =25℃	-	1	V
Power Dissipation	Pd	Ta =25℃	-	0.45	W

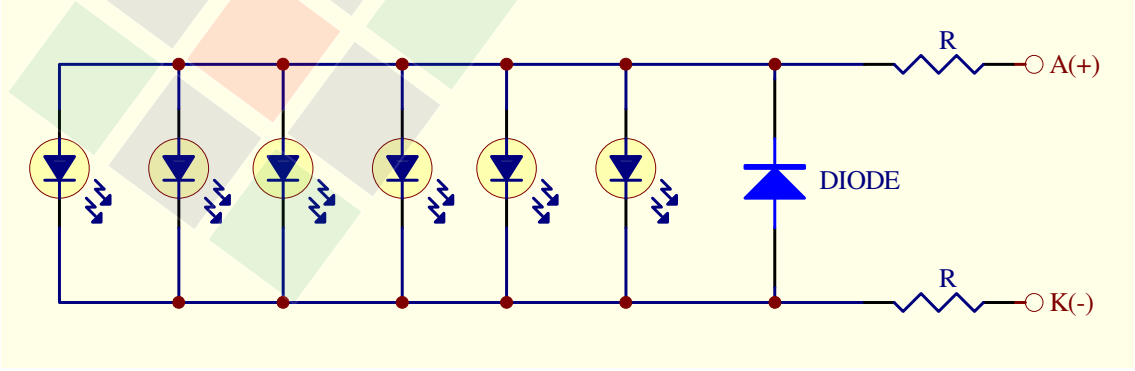
Electrical / Optical Characteristics

Ta =25℃

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF =120mA	-	3.7	4.0	V
Reverse Current	IR	VR = 0.8V	-	30	-	mA
Average Brightness (without LCD)	IV	IF =120mA	280	360	-	cd/m^2
Uniformity (Without LCD) *1	△B		70	-	-	%
CIE Color Coordinate (Without LCD)	X		0.287	0.300	0.330	-
	Y		0.276	0.310	0.339	
Color	White					

*1 : △B=B(min) / B(max) *100%

Internal Circuit Diagram:



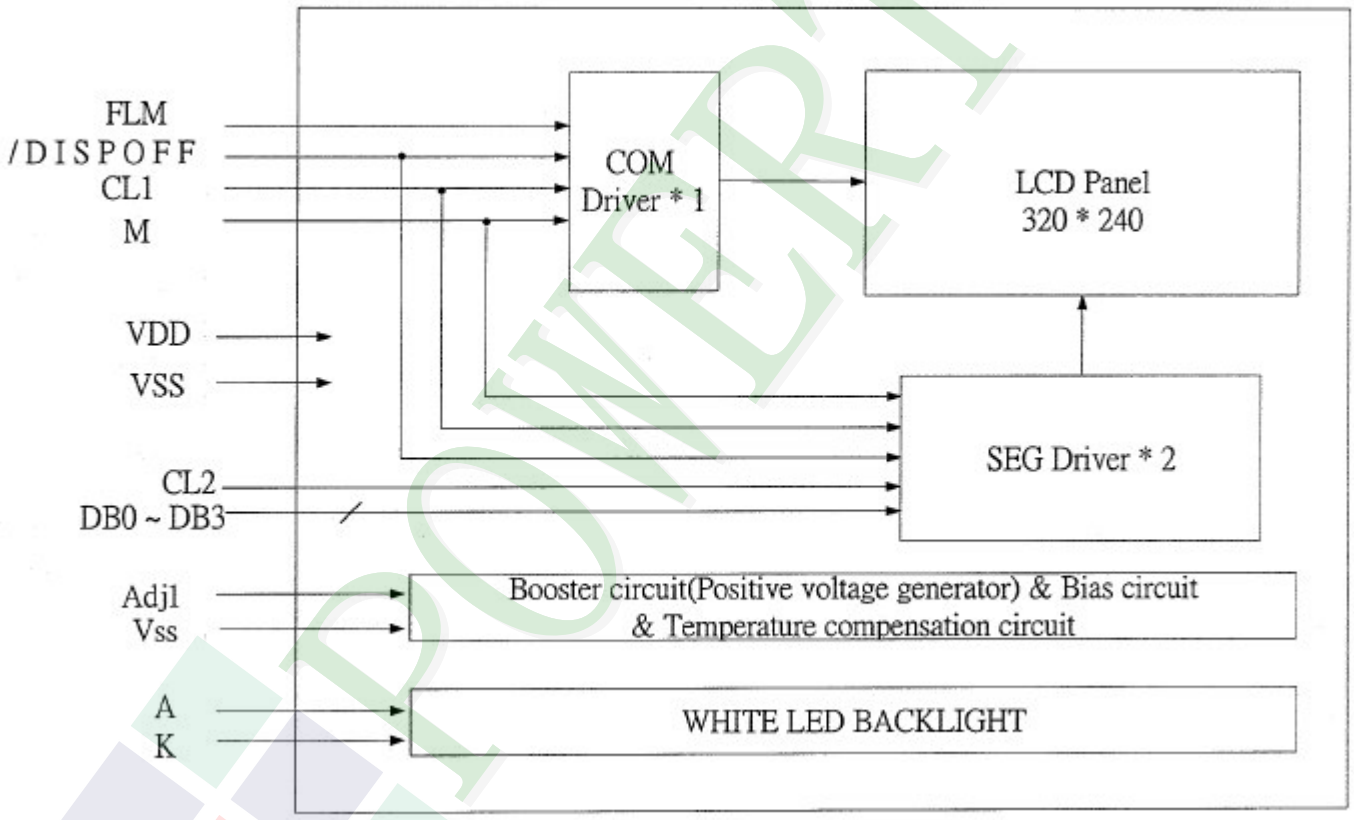
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

2.1.2 Block Diagram

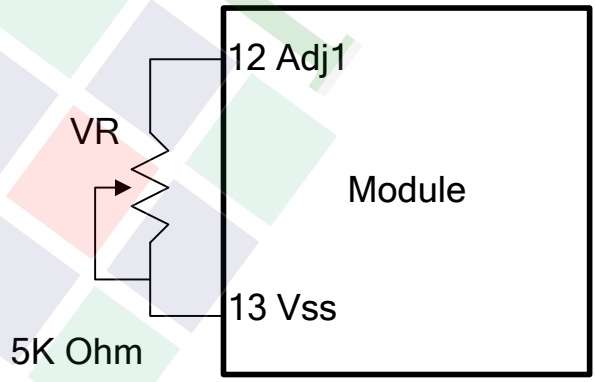


2.2 Interface Pin Description

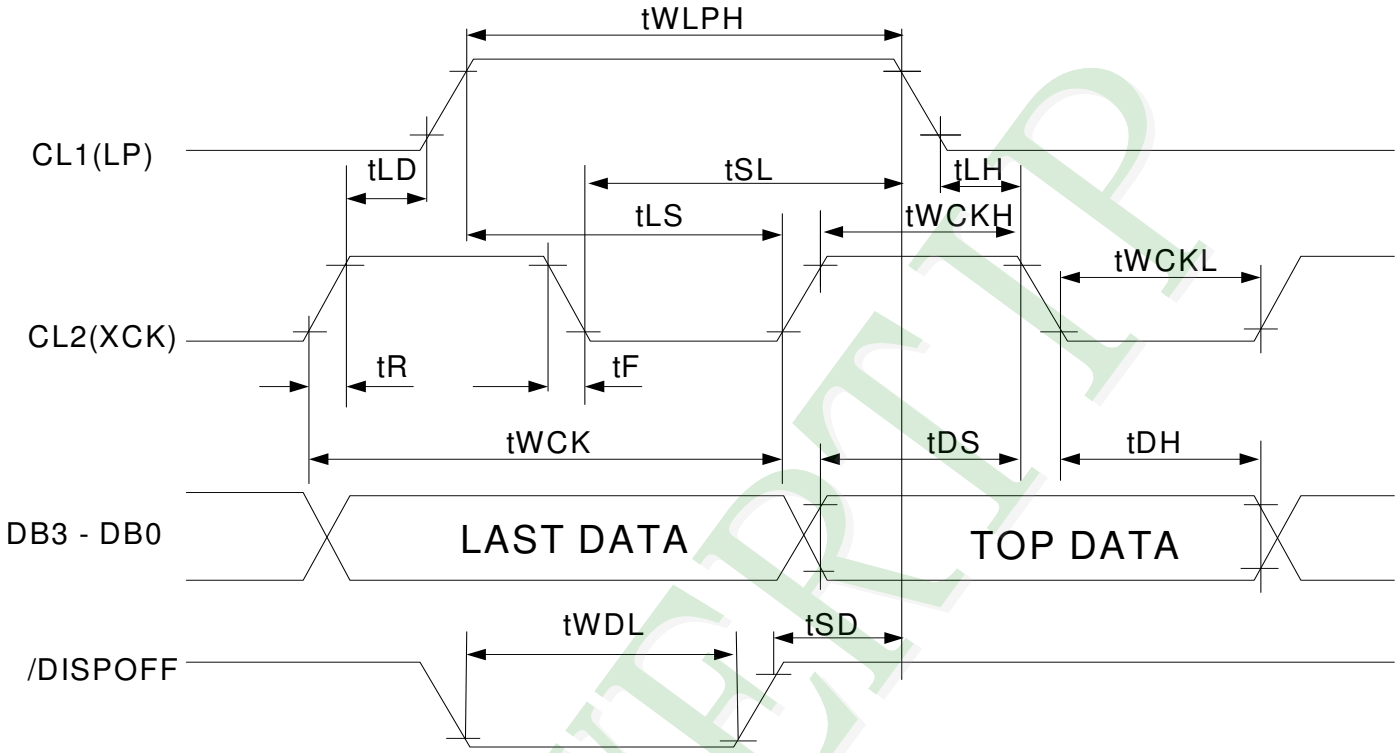
PIN	Symbol	DESCRIPTION
1	FLM	Indicates the beginning of each display cycle.
2	M	AC signal input for LC driving waveform
3	CL1	Shift clock pulse input pin.
4	CL2	Clock input pin for taking display data
5	/D-OFF	Control input pin for output deselect level, active “L”
6	DB0	Display data input pin
7	DB1	Display data input pin
8	DB2	Display data input pin
9	DB3	Display data input pin
10	V_{DD}	Logic system power supply pin
11	Vss	Ground pin
12	ADJ1	LCD Operator Voltage
13	Vss	Ground pin
14	NC	Must be open.
15	A	Power supply for LED B/L.（Anode）
16	K	Power supply for LED B/L.（Cathode）

Note : FLM Recommended 55Hz ~ 75Hz
M Recommended 200Hz ~ 400Hz

- **Contrast Adjust**



2.3 Timing Characteristics



Vss=0V, V_{DD}=4.5V to 5.5V, Ta=25°C

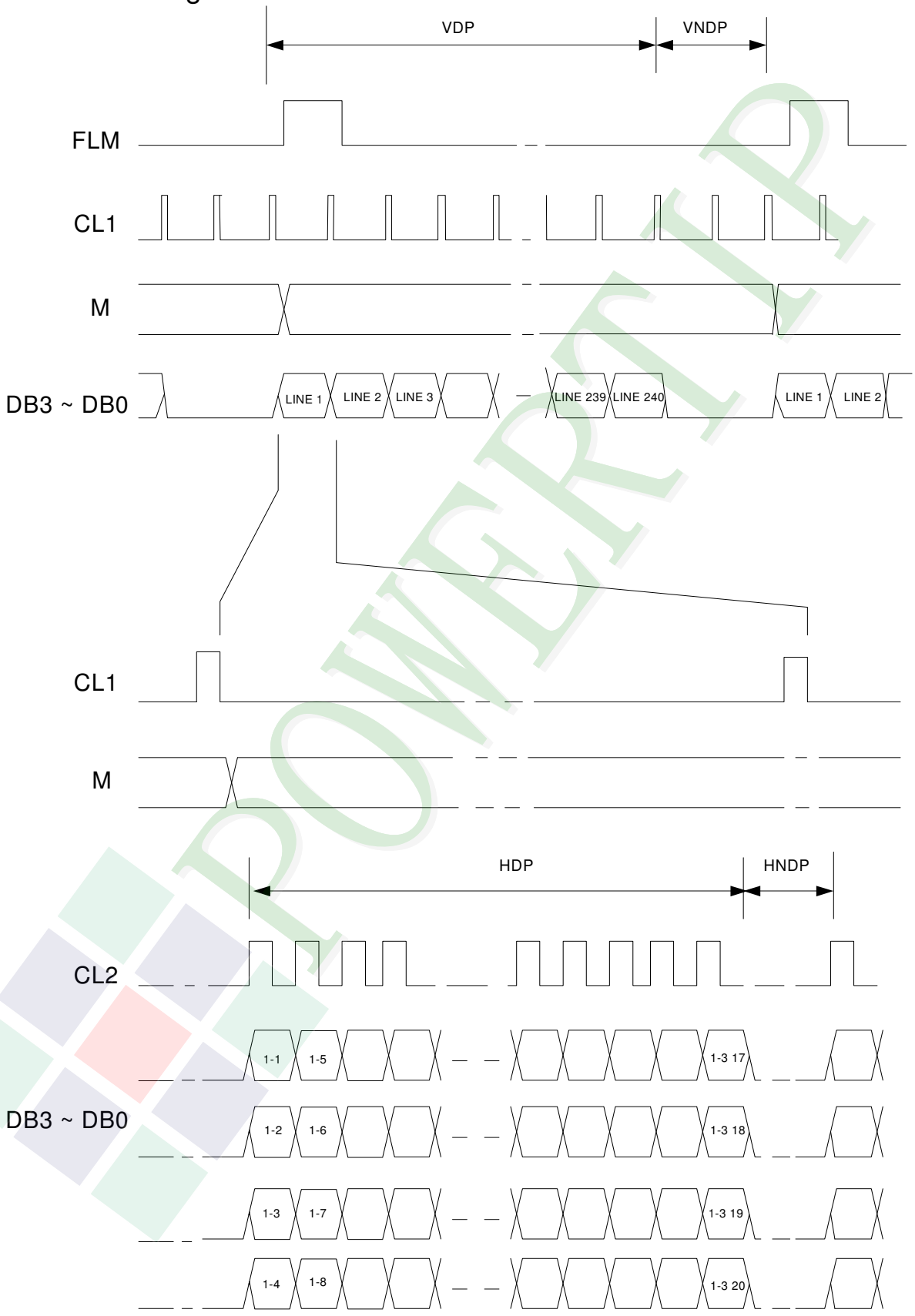
Parameter	Symbol	Condition	Min	TYP	Max	Unit
Shift clock period	t_{WCK}	t_R, t_F = 10ns	50			ns
Shift clock “H” pulse width	t_{WCKH}		15			ns
Shift clock “L” pulse width	t_{WCKL}		15			ns
Data setup time	t_{DS}		10			ns
Data hold time	t_{DH}		12			ns
Latch pulse “H” pulse width	t_{WLPH}		15			ns
Shift clock rise to latch pulse rise time	t_{LD}		0			ns
Shift clock fall to latch pulse fall time	t_{SL}		30			ns
Latch pulse rise to shift clock rise time	t_{LS}		25			ns
Latch pulse fall to shift clock fall time	t_{LH}		25			ns
Latch pulse fall to shift clock rise time	t_{LSW}		50			ns
Enable setup time	t_S		10			ns
Input signal rise time	t_R				50	ns

Parameter	Symbol	Condition	Min	TYP	Max	Unit
Input signal fall time	t_F				50	ns
/DISPOFF removal time	t_{SD}		100			ns
/DISPOFF “L” pulse width	t_{WDL}		1.2			ns

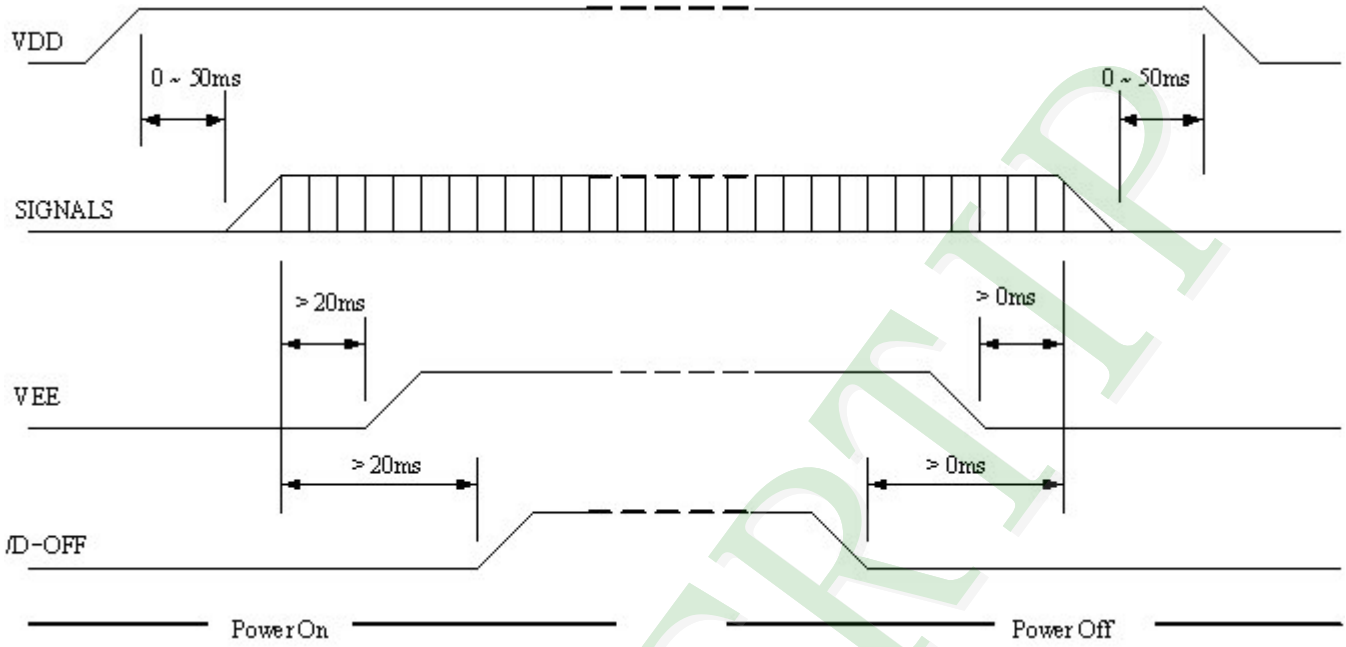
NOTES :

1. Takes the cascade connection into consideration.
2. (t_{WCK} - t_{WCKH} - t_{WCKL}) / 2 is maximum in the case of high speed operation.

4 Bits Panel Timing



Timming of power supply for graphic modules

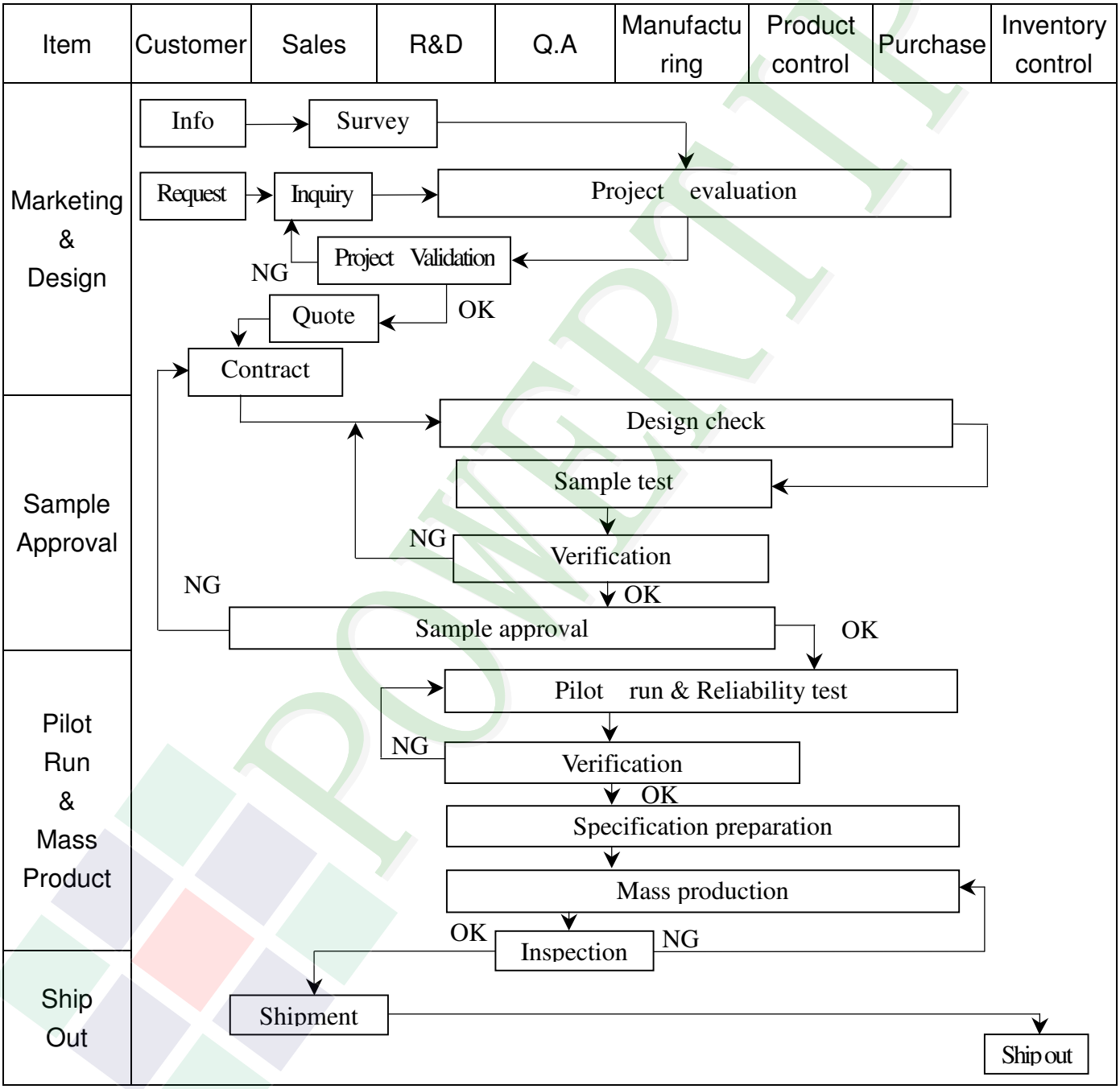


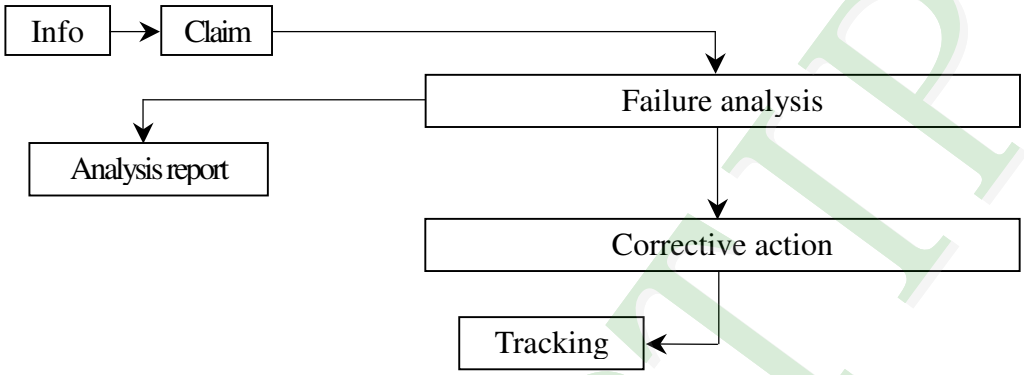
2.4 Jumper Setting

Short:JF

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								
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 LCD Module for Monotype and Color STN(Ver. 02).

◆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 .

◆Manner of appearance test :

(1). The test be under 20W×2 fluorescent light ' and distance of view must be at 30 cm.

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

(3). The test direction is base on about around 45° of vertical line. (Fig. 1)

(4). Definition of area . (Fig. 2)

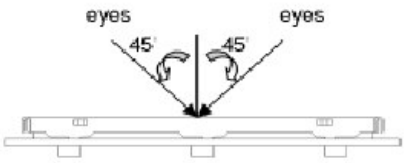


Fig.1

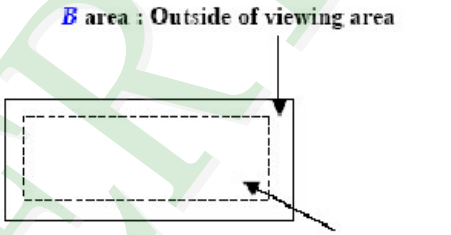


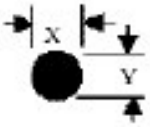
Fig. 2

◆ Specification:

NO	Item	Criterion	level
01	Product condition	1.1 The part number is inconsistent with work order of Production.	Major
		1.2 Mixed production 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 Output data is error.	Major
		4.4 LCD viewing angle defect.	Major
		4.5 Current consumption exceeds product specifications.	Major

◆Specification For Monotype and Color STN :　(Ver. 02)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>level</th></tr>
<tr><td>05</td><td>Black or white dot、scratch、contamination

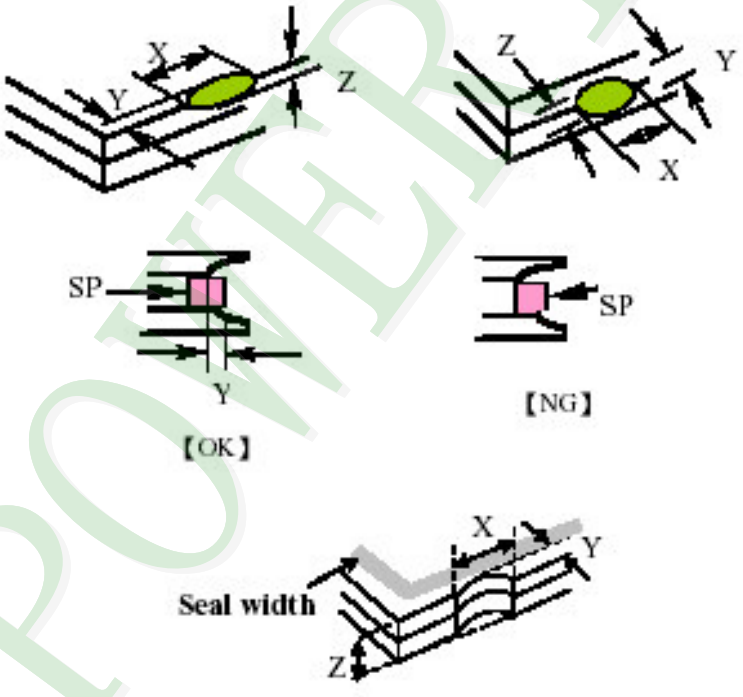
Round type
 

Φ=(x+y)/2

Line type
 
</td><td>5. 1 Round type:
5. 1. 1 display only :
• White and black spots on display ≦ 0. 30 mm , no more than 4 white or black spots present.
• Densely spaced : NO more than two spots or lines within 3 mm.

5. 1. 2 Non-display :
<table>
<tr><th>Dimension (diameter : Φ)</th><th>Acceptance (Q'ty)</th></tr>
<tr><td>Φ≦0. 10</td><td>Accept no dense</td></tr>
<tr><td>0. 10 ＜ Φ ≦ 0. 20</td><td>3</td></tr>
<tr><td>0. 20 ＜ Φ ≦ 0. 30</td><td>2</td></tr>
<tr><td>Total quantity</td><td>4</td></tr>
</table>
5. 1. 3 Line type:
<table>
<tr><th colspan="2">Dimension</th><th colspan="2">Acceptance (Q'ty)</th></tr>
<tr><th>Length (L)</th><th>Width (W)</th><th>A area</th><th>B area</th></tr>
<tr><td>---</td><td>W ≦ 0. 03</td><td>Accept no dense</td><td>Don't count</td></tr>
<tr><td>L ≦ 3. 0</td><td>0. 03 ＜ W ≦ 0. 05</td><td rowspan="2">4</td><td>Don't count</td></tr>
<tr><td>L ≦ 2. 5</td><td>0. 05 ＜ W ≦ 0. 075</td><td>Don't count</td></tr>
<tr><td>---</td><td>W ＞0. 075</td><td colspan="2">As round type</td></tr>
</table></td><td>Minor</td></tr>
<tr><td>06</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. 20</td><td>Accept no dense</td><td>Don't count</td></tr>
<tr><td>0. 20 ＜Φ ≦ 0. 50</td><td>3</td><td>Don't count</td></tr>
<tr><td>0. 50 ＜Φ ≦ 1. 00</td><td>2</td><td>Don't count</td></tr>
<tr><td>Φ ＞ 1. 00</td><td>0</td><td>Don't count</td></tr>
<tr><td>Total quantity</td><td>4</td><td>Don't count</td></tr>
</table></td><td>Minor</td></tr>
</table>

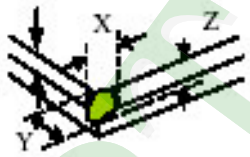
◆Specification For Monotype and Color STN：　(Ver. 02)

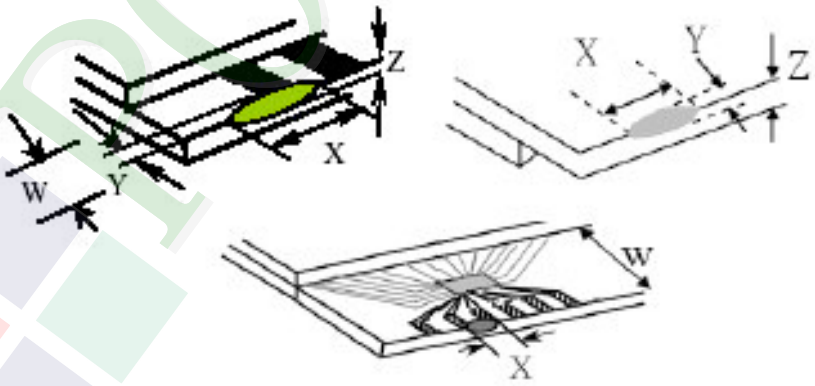
NO	Item	Criterion	Level
07	The crack of glass	Symbols： X : The length of crack　Y : The width of crack. Z : The thickness of crack　W : terminal length t : The thickness of glass　a : LCD side length 7.1 General glass chip： 7.1.1 Chip on panel surface and crack between panels: 	Minor

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 Monotype and Color STN：　(Ver. 02)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="3">07</td><td rowspan="3">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="3">Minor</td></tr>
<tr><td>7.1.2 Corner crack：
 

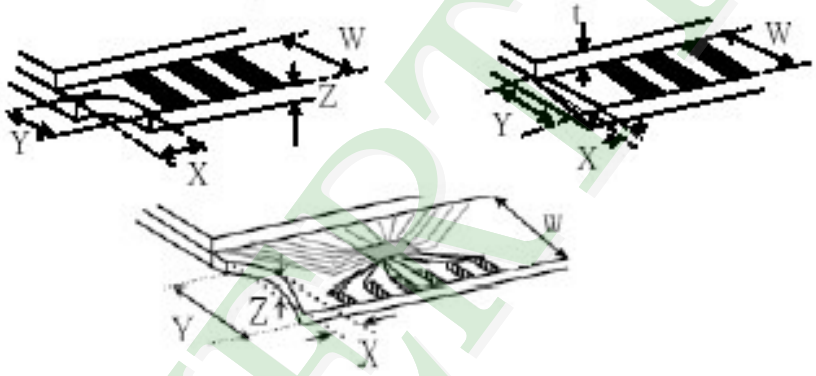
<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦1/5 a</td><td>Crack can't enter viewing area</td><td>Z ≦ 1/2 t</td></tr>
<tr><td>≦1/5 a</td><td>Crack can't exceed the half of SP width.</td><td>1/2 t < Z ≦ 2 t</td></tr>
</table></td></tr>
<tr><td>7.2 Protrusion over terminal：
7.2.1 Chip on electrode 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 colspan="3">Neglect</td></tr>
</table></td></tr>
</table>

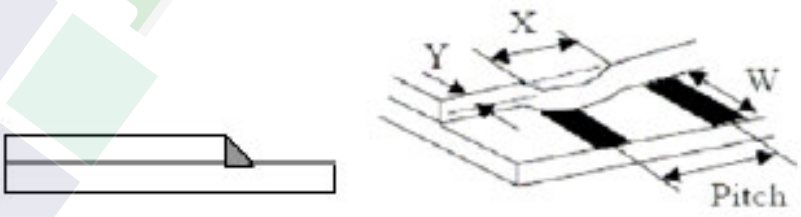
◆Specification For Monotype and Color STN：　(Ver. 02)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td>07</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

7.2.2 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.

7.2.3 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 Monotype and Color STN：　(Ver. 02)

NO	Item	Criterion	Level
08	Backlight elements	8. 1 Backlight can't work normally.	Major
		8. 2 Backlight doesn't light or color is wrong.	Major
		8. 3 Illumination source flickers when lit.	Major
09	General appearance	9. 1 Pin type must match type in specification sheet.	Major
		9. 2 No short circuits in components on PCB or FPC.	Major
		9. 3 Product packaging must the same as specified on packaging specification sheet.	Minor
		9. 4 The folding and peeled off in polarizer are not acceptable.	Minor
		9. 5 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.02)

<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>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 +/-
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>5</td><td>Temperature Cycling
Storage Test</td><td>-20℃ → +25℃ → +70℃ → +25℃
(30mins) (5mins) (30mins) (5mins)
10 Cycle
Surrounding temperature, then storage at normal condition 4hrs.</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>Over 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 280 ± 10℃ 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℃ ± 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.

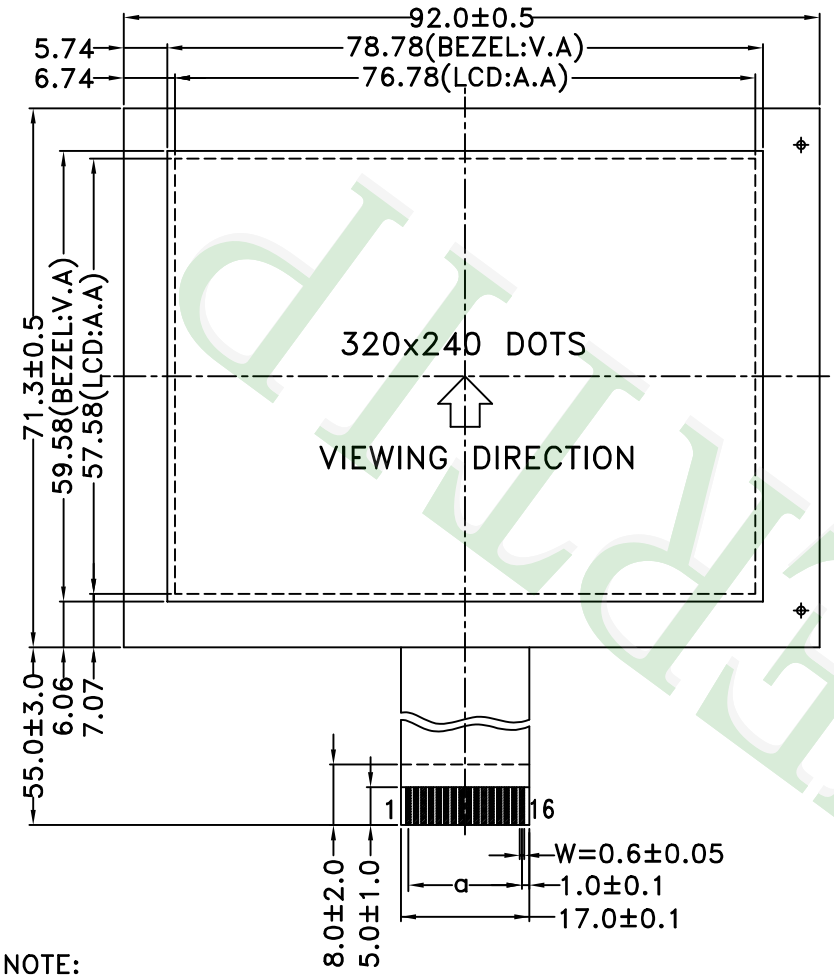
5.4 TERMS OF WARRANTY

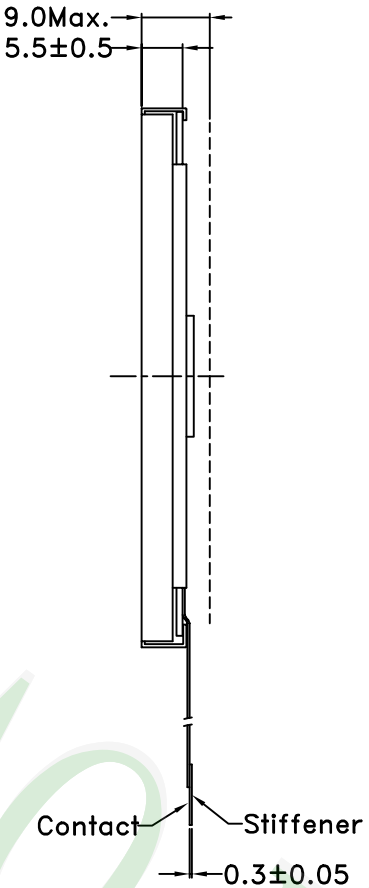
5.4.1 Applicable warrant period

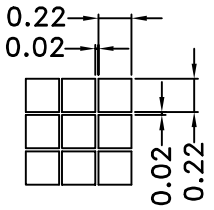
The period is within thirteen months since the date of shipping out under normal using and storage conditions.

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. and where extremely high levels of reliability are required.







DOTS DETAIL
SCALE : 20/1

NOTE:
1.The tolerance unless classified ±0.3mm
2.a=(P1.0x15=15.0±0.1)
3.LCD type : FSTN
4.LCD mode : Positive / Transflective
5.T_{op}:−20°C~70°C , T_{st}:−30°C~80°C
6.Viewing Direction : 6 O'clock

REV	REV BY	REVISER	DATE
006			
005			
004			
003			
002			
001	Modify LCD	Mag	2008/07/01
0	NEW DRAWING	Mag	2006/01/27

PART NO: PG320240WRFHNNHS1Q

DRAWING NAME : LMD-PG320240WRFHNNHS1Q

TITLE: LCD MODULE DRAWING

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

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

最小長度 (mm) \ 精度等級	精級
1 ~ 4	-
4 ~ 16	-
16 ~ 63	-
63 ~ 250	-
250 ~ 1000	-

Ver.001	
Documents NO.	PKG-PG320240WRFHNNHS1Q

LCM包裝規格書
LCM Packaging Specifications

Approve	Check	Contact
Oliver	Stone	Mag

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

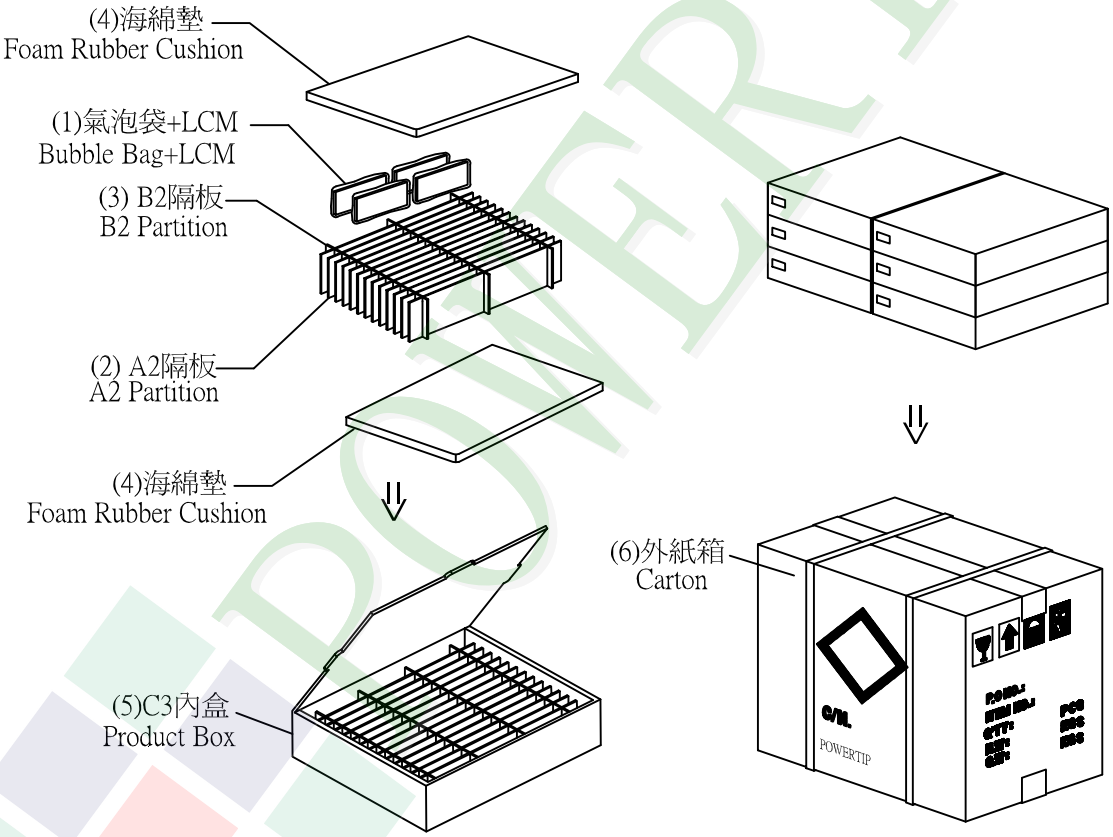
No.	Item	Model	Dimensions (mm)	1Pcs Weight	Quantity	Total Weight
1	成品 (LCM)	PG320240WRFHNNHS1Q	92.0 X 71.3	0.065	96	6.24
2	氣泡袋(1)Bubble Bag	BAG170150BRABA	170 X 150	0.0045	96	0.432
3	A2隔板(2)A2 Partition	BX29300070BMBA	293 X 70 X 2.5	0.011	66	0.726
4	B2隔板(3)B2 Partition	BX24500070BLBA	245 X 70 X 2.5	0.01	18	0.18
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) : 10.49 Kg±10%

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

(1)Quantity Of Spacer : A2隔板 X 11 , B2隔板 X 3

(2)Total LCM quantity in carton : quantity per box 16 x no of boxes 6 = 96



特 記 事 項 (REMARK)

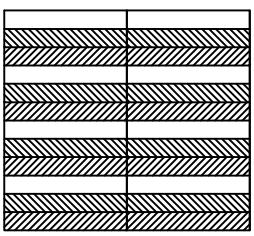
1. Label Specifications :

MODEL:
LOT NO:
QUANTITY:
CHECK:

2. 每放兩片模組空一格放置格。
(如放置格示意圖)

2. place every 2 LCMs with an interval of emapty cell.
(See remarks 3 on packaging specifications)

3.放置格示意圖:
3.Each divider is placed inside a product Box



1. 模組 2. 空格