DATA MODUL
DISPLAY AND SYSTEM SOLUTIONS

Specification

PG320240WRF-HE9-H-YU-Q

Doc.: PS320240WRF-HE9H03 (Ver.0)

Version September 2006

POWERTIP TECH. CORP.

SPECIFICATIONS

CUSTOMER	:	**CDE021**
SAMPLE CODE (Ver.)	:	**PS320240WRF-HE9H03 (Ver.0)**
MASS PRODUCTION CODE (Ver.)	:	**PG320240WRFHE9HYUQ (Ver.0)**
DRAWING NO. (Ver.)	:	**PG-03104-249 (Ver.0)**

Customer Approved

Date:

Approved	QC Confirmed	Designer

■ Approval For Specifications Only.

* This specification is subject to change without notice.

Please contact Powertip or it's representative before designing your product based on this specification.

□ Approval For Specifications and Sample.

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RECORDS OF REVISION

Date	Ver.	Description	Page	Design by
2006/07/18	0	**Switch to ROHS compliance version**		Vodka

Total 25 Page

Contents

Note For detailed information please refer to IC data sheet EPSON---S1D13700

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	85 g
Interface	8 bit parallel data input
Driver IC	Controller IC: S1D13700
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer web side : http://www.powertip.com.tw/news/LatestNews.asp

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	92.0 (L) * 71.7 (w) * 10.5 (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	V_{EE}-V_{SS}		-0.3	25	V
Input Voltage	V_{IN}		-0.3	V_{DD}+0.5	V
Operating Temperature	T_{OP}	Excluded T/P	-20	70	°C
Storage Temperature.	T_{ST}	Excluded T/P	-30	80	°C
Storage Humidity	H_D	Ta 40	20	90	%RH

1.4 DC Electrical Characteristics

V_{DD} = 5.0V±10% 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}		3.5			V
"L" Input Voltage	V_{IL}				1.0	V
"H" Output Voltage	V_{OH}	I_{OH} = -8mA	V_{DD}-0.4			V
"L" Output Voltage	V_{OL}	I_{OL} = 8mA			0.4	V
Supply current	I_{DD}	V_{DD} =5.0V , Vop =21.0V		17	56	mA
LCM driving voltage	V_{OP}	V_{C9} (Ta= -20°C)	21.0	21.2	21.4	V
		V_{C9} (Ta= 25°C)	20.7	21.0	21.3	
		V_{C9} (Ta= 70°C)	19.4	19.6	19.8	

Test condition : M : 36Hz FLM : 72Hz

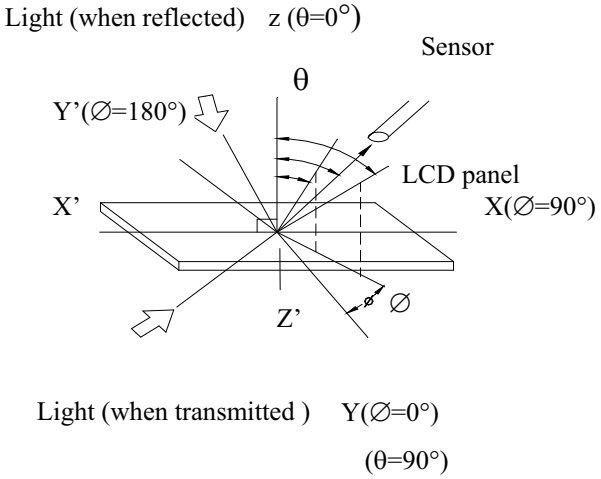
Note: Need to make sure that there is no flicker and ripper phenomenon when setting the frame frequency in your set .

1.5 Optical Characteristics

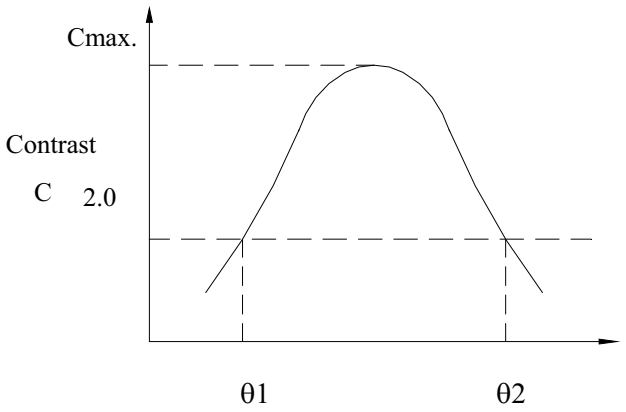
LCD Panel: 1/240 Duty, 1/15 Bias, V_{LCD} = 22.0 V, Ta = 25°C

Item	Symbol	Conditions	Min.	Typ.	Max.	Reference
View Angle	θ	C≥2.0, ∅ = 270°	-40°		+40°	Notes 1
Contrast Ratio	C	θ = 5°, ∅ = 0°	1.5			Note 3
Response Time(rise)	tr	θ = 5°, ∅ = 0°		110 ms	165 ms	Note 2
Response Time(fall)	tf	θ = 5°, ∅ = 0°		260 ms	390 ms	

Note 1: Definition of angles θ and ∅



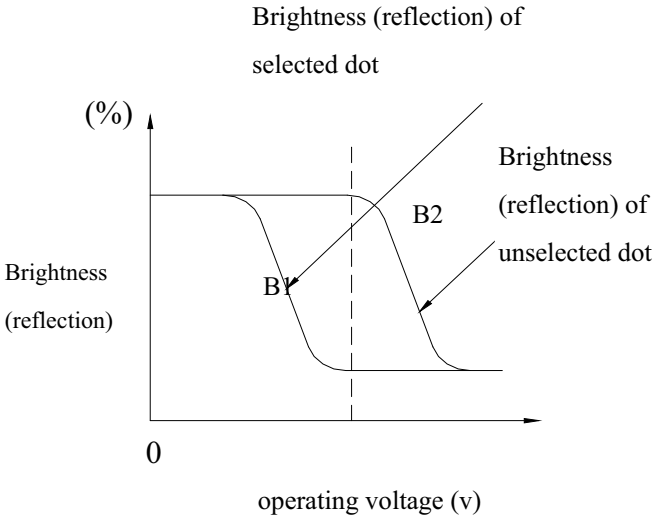
Note 2: Definition of viewing angles θ1 and θ2



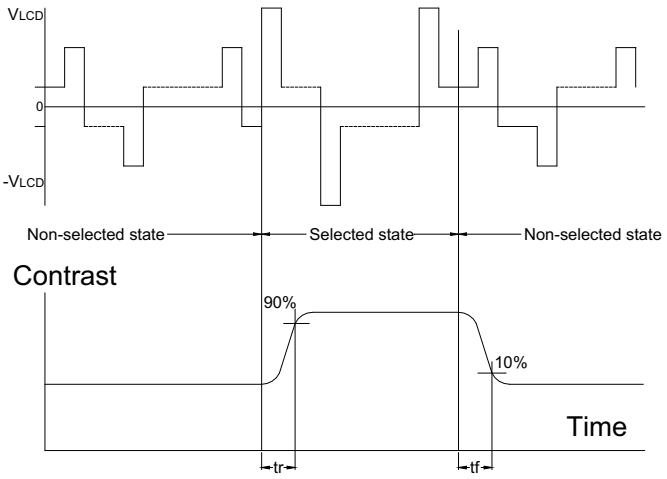
Note : Optimum viewing angle with the naked eye and viewing angle θ at Cmax. Above are not always the same

Note 3: Definition of contrast C

$$C = \frac{\text{Brightness (reflection) of unselected dot (B2)}}{\text{Brightness (reflection) of selected dot (B1)}}$$



Note 4: Definition of response time



Note: Measured with a transmissive LCD panel which is displayed 1 cm^2

V_{LCD} : Operating voltage f_{FRM} : Frame frequency

t_r : Response time (rise) t_f : Response time (fall)

1.6 Backlight Characteristics

LCD Module with LED Backlight

Maximum Ratings

Item	Symbol	Conditions	Min.	Max.	Unit
Forward Current	IF	Ta =25°C		120	mA
Reverse Voltage	VR	Ta =25°C		5	V
Power Dissipation	PO	Ta =25°C		0.51	W

Electrical / Optical Characteristics

Ta =25°C

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Current	IR	VR= 5 V			10	uA
Forward Voltage	VF	IF= 120 mA		3.7	4.2	V
Average Brightness With LCD and Touch Panel	IV		10	25		cd/m^2
CIE Color Coordinate With LCD and Touch Panel	X		0.24	0.30	0.36	-
	Y		0.25	0.31	0.37	
Uniformity *1	ΔB		70			%
Color	White					

*1 B=B(min) / B(max)%

1.7 Touch Screen Characteristic

1. Input Method and Activation Force

   Stylus 10~70 grams and Finger 20~80 grams

2. Typical Optical Characteristics

   Visible Light Transmission : >80%

   Haze : 5%±2% through hard coated PET only

3. Electrical Specifications

   1. Operating Voltage 5.5V or less

   2. Contact current 20mA(maximum)

   3. Circuit close resistance X : 400~1000Ω Y : 200~650Ω

4. Circuit open resistance > 20MΩ at 25V DC

5. Contact bounce < 15ms

6. Linear Test Specification : ± 1.5% (maximum)

4. Linearity Tolerance : ±1.5% (maximum)

5. Environment Specification

   Operating Temperature -10°C ~ +60°C (Humidity less than 90% RH)

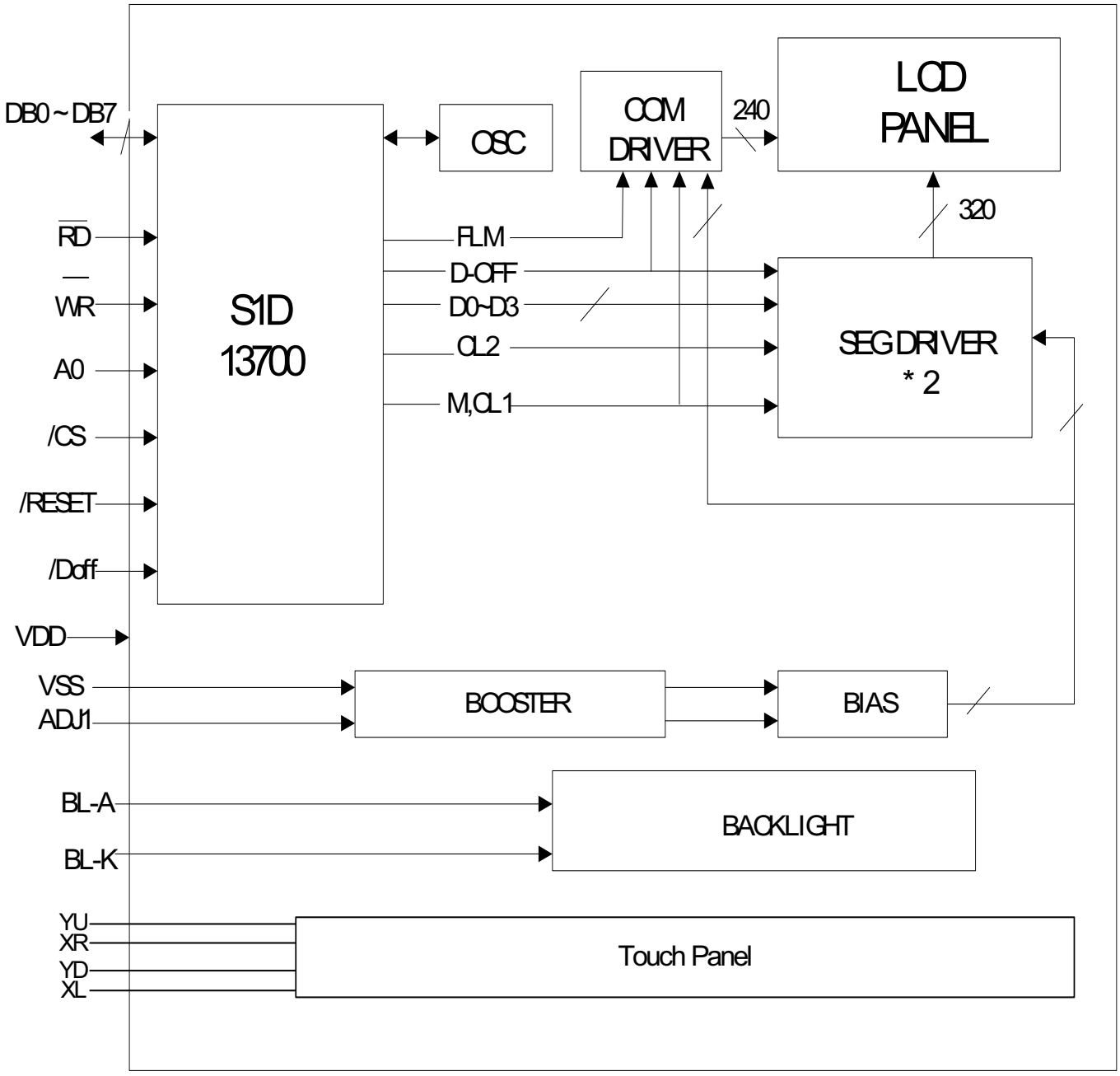
   Storage Temperature -20°C ~ +80°C (at ambient Humidity)

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

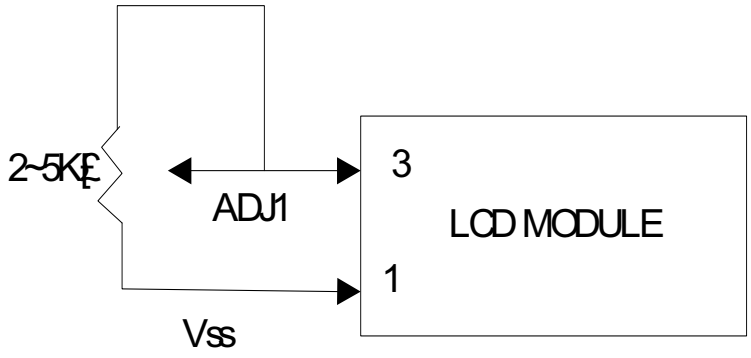
2.1.2 Block Diagram



2.2 Interface Pin Description

Pin No.	Symbol	Function
1	V_{SS}	Ground (V_{SS}=0V)
2	V_{DD}	Power supply (V_{DD}=5.0V)
3	Adj1	LCD Contrast Adjust
4	/RD	Data read (read data from the module at "L")
5	/WR	Data write (write data to the module at "L")
6	AO	S1D13700 command/data read or write select
7	DB0	Display data input pin bit0
8	DB1	Display data input pin bit1
9	DB2	Display data input pin bit2
10	DB3	Display data input pin bit3
11	DB4	Display data input pin bit4
12	DB5	Display data input pin bit5
13	DB6	Display data input pin bit6
14	DB7	Display data input pin bit7
15	/CS	S1D13700 chip select , active”L”
16	/RESET	S1D13700 reset input , active”L”
17	/Doff	Power Sleeping Control (Built in connect to S1D13700 YDIS) , active”L”
18	NC	Not connection,must be open
19	BL-A	Power supply for LED B/L. Anode
20	BL-K	Power supply for LED B/L. Cathode

˙Contrast Adjust

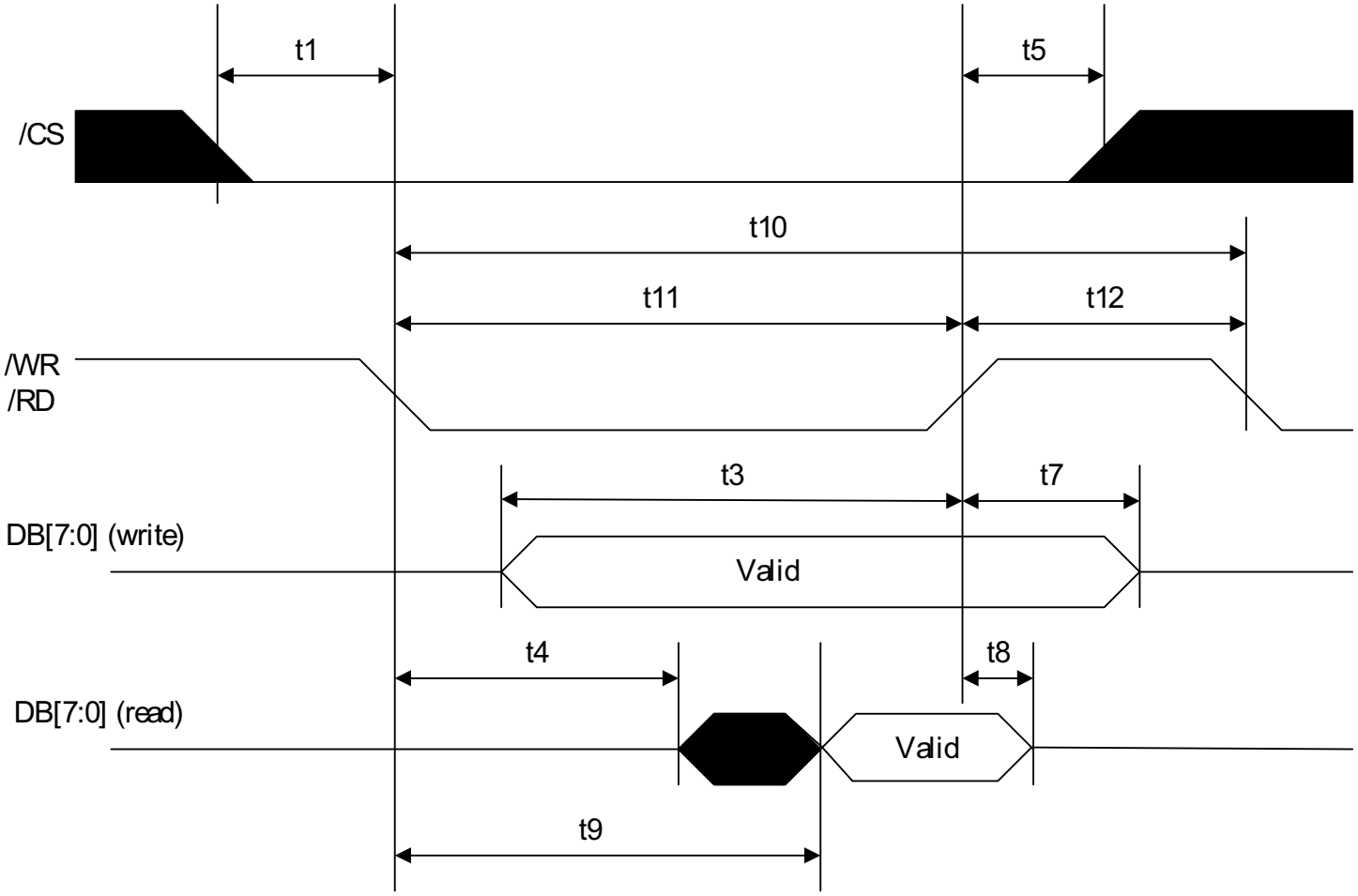


TOUCH PANEL

Pin No.	Symbol	Function
1	YU	Touch panel Y coordinate up
2	XR	Touch panel X coordinate right
3	YD	Touch panel Y coordinate down
4	XL	Touch panel X coordinate left

2.3 Timing Characteristics

For 8080 Interface



VDD= 4.5 ~ 5.5V , VSS= 0V , Ta=-20 ~ 70

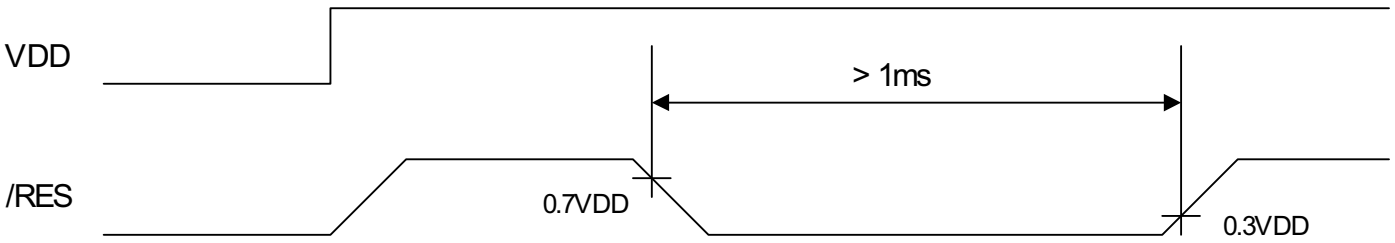
Symbol	Parameter	Min	Max	Unit
t1	/CS setup time	5		ns
t3	DB[7:0] setup time to /WR rising edge (write cycle)	Note2		ns
t4	/RD falling edge to DB[7:0] driven (read cycle)	3		ns
t5	/CS hold time	7		ns
t7	DB[7:0] hold time from /WR rising edge (write cycle)	5		ns
t8	DB[7:0] hold time from /RD rising edge (read cycle)	3	14	ns

Symbol	Parameter	Min	Max	Unit
t9	/RD falling edge to valid data (read cycle)		Note3	ns
t10	/RD, /WR cycle time	Note4		ns
t11	/RD, /WR pulse active time	5		Ts
t12	/RD, /WR pulse inactive time	Note5		ns

Note:

1. Ts = System clock period
2. t3min = 2Ts + 5
3. t9max = 4Ts + 20
4. t10min = 6TS (for a read cycle followed by a read or write cycle)
   = 7Ts + 2 (for a write cycle followed by a write cycle)
   = 10Ts + 2 (for a write cycle followed by a read cycle)
5. t12min = 1TS (for a read cycle followed by a read or write cycle)
   = 2Ts + 2 (for a write cycle followed by a write cycle)
   = 5Ts + 2 (for a write cycle followed by a read cycle)

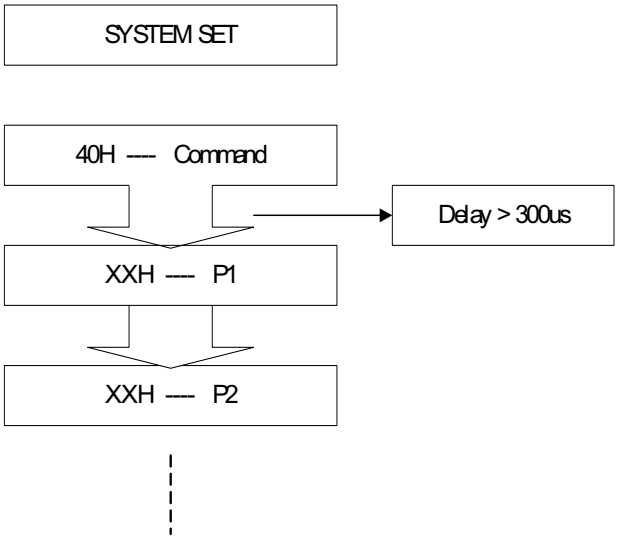
Reset Timing



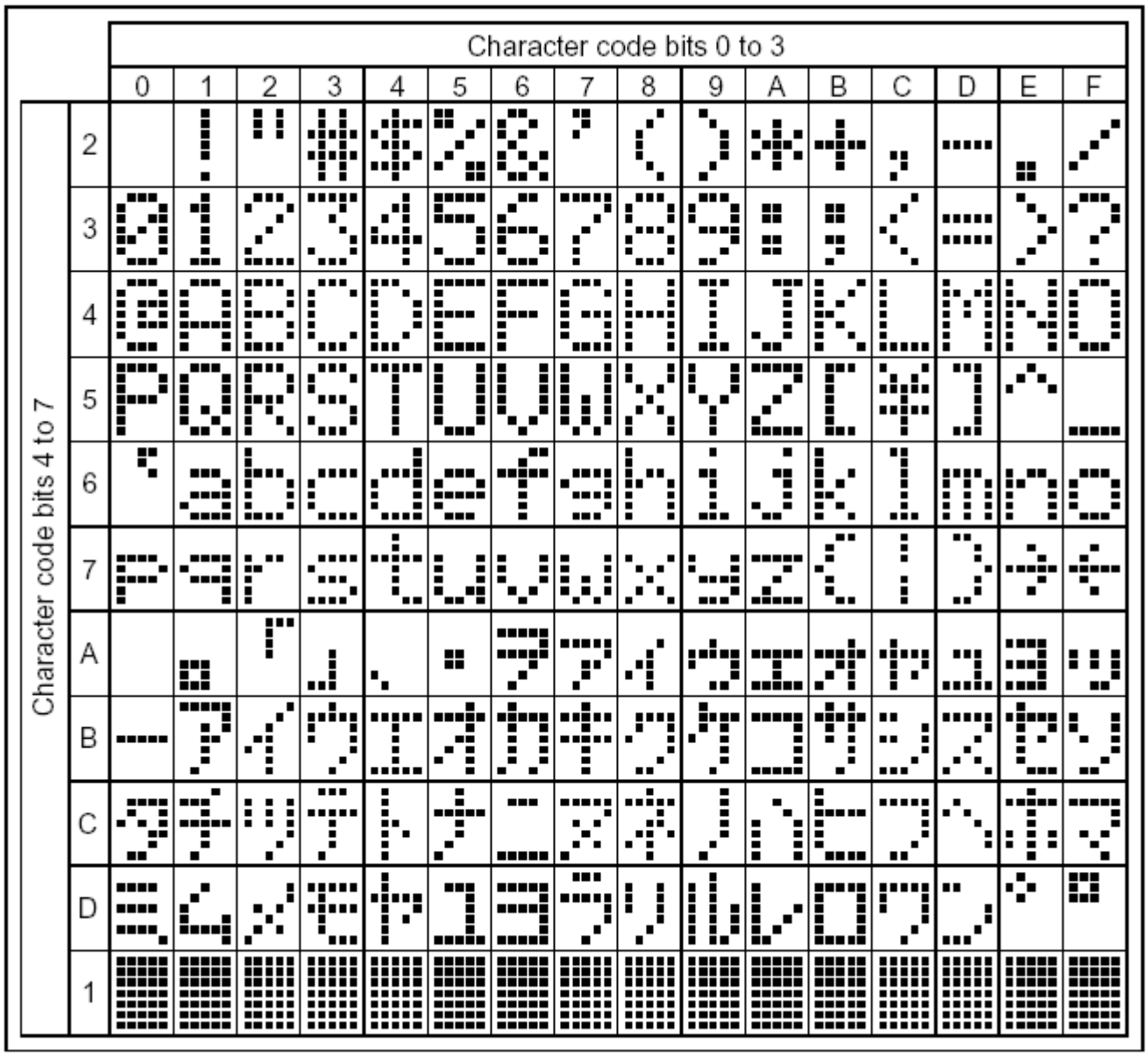
2.4 Display Command

Class	Command	Code											Hex	Command description	Command read Parameters
		/RD	/WR	A0	D7	D6	D5	D4	D3	D2	D1	D0			Number of bytes
System control	SYSTEM SET	1	0	1	0	1	0	0	0	0	0	0	40	Initialize device and display	8
	SLEEP IN	1	0	1	0	1	0	1	0	0	1	1	53	Enter standby mode	0
Display control	DISP ON/OFF	1	0	1	0	1	0	1	1	0	0	D	58 59	Enable and disable display and display flashing	1
	SCROLL	1	0	1	0	1	0	0	0	1	0	0	44	Set display start address and display regions	10
	CSRFORM	1	0	1	0	1	0	1	1	1	0	1	5D	Set cursor type	2
	CGRAM ADR	1	0	1	0	1	0	1	1	1	0	0	5C	Set start address of character generator RAM	2
	CSRDIR	1	0	1	0	1	0	0	1	1	CD 1	CD 0	4C to 4F	Set direction of cursor movement	0
	HDOT SCR	1	0	1	0	1	0	1	1	0	1	0	5A	Set horizontal scroll position	1
	OVLAY	1	0	1	0	1	0	1	1	0	1	1	5B	Set display overlay format	1
Drawing control	CSRW	1	0	1	0	1	0	0	0	1	1	0	46	Set cursor address	2
	CSRR	1	0	1	0	1	0	0	0	1	1	1	47	Read cursor address	2
--	Gray Scale	1	0	1	0	1	1	0	0	0	0	0	60	Set Grayscale depth	1
Memory control	MWRITE	1	0	1	0	1	0	0	0	0	1	0	42	Write to display memory	-
	MRAD	1	0	1	0	1	0	0	0	0	1	1	43	Read from display memory	-

Notes



2.5 Character Pattern

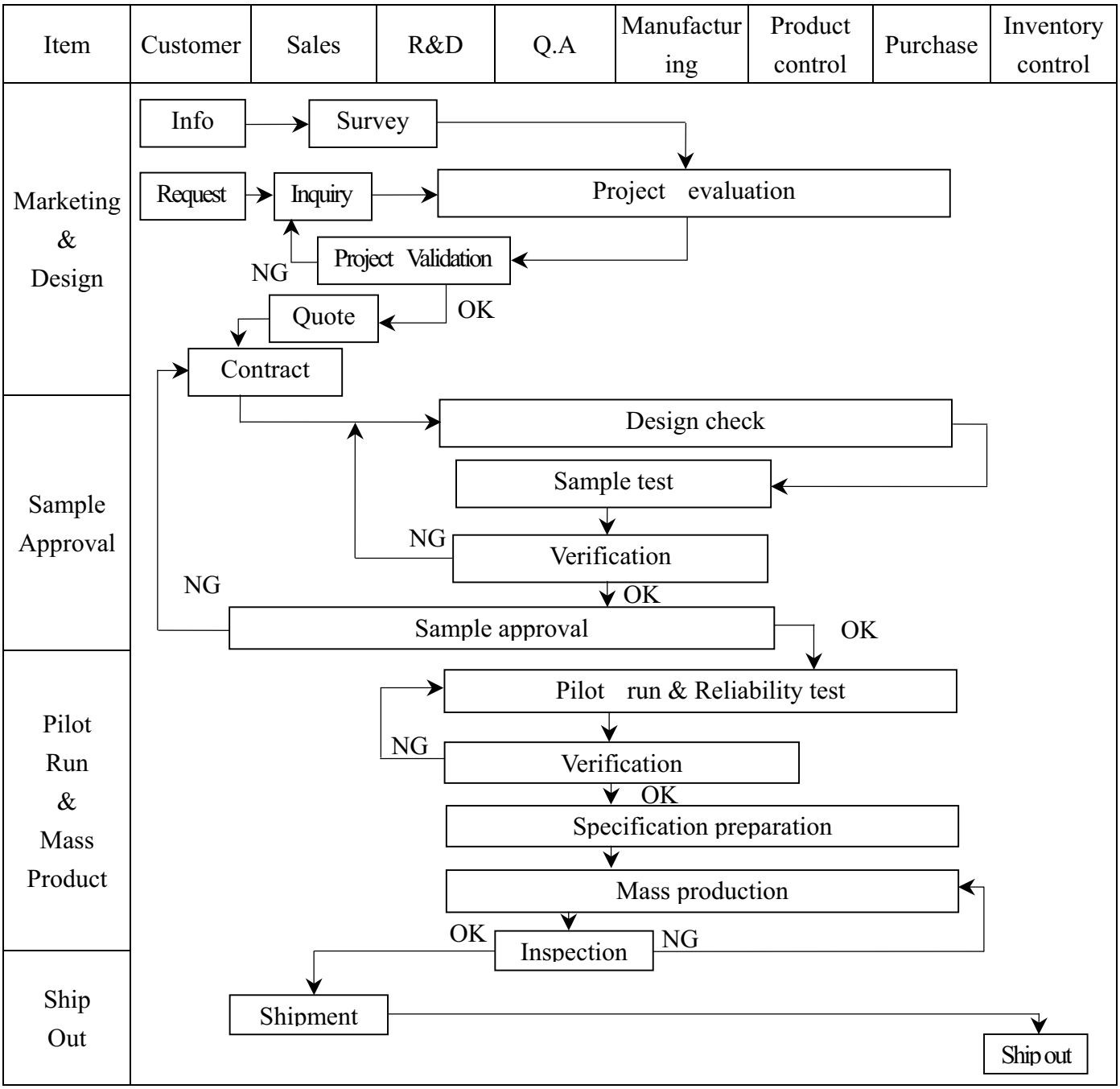


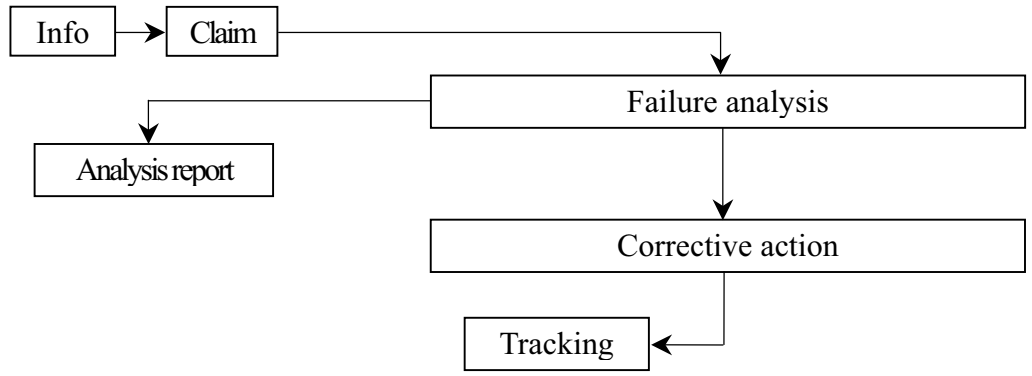
2.6 Jumper Setting

SHORT : JF,JDS-1,JMS-1,JCK-1

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 LCD Module for Monotype and Color STN(Ver. 01).

◆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)

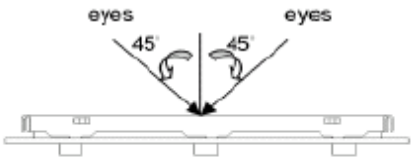


Fig.1

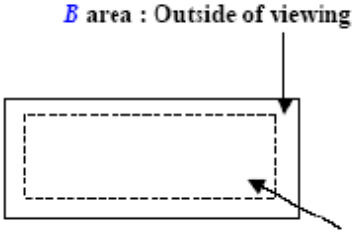


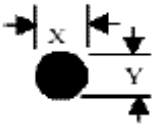
Fig. 2 A area : viewing area

◆ Specification:

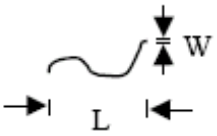
NO	Item	Criterion	level
01	Product condition	1.1 The part number is inconsistent with work order of Production.	Major
		1.2 Mixed production types.	Major
		1.3 Assembled in inverse direction.	Major
02	Quantity	2.1 The quantity is inconsistent with work order of production.	Major
03	Outline dimension	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.01)

<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

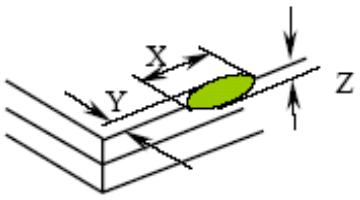
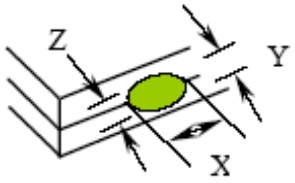
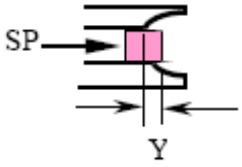
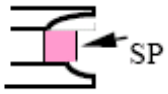
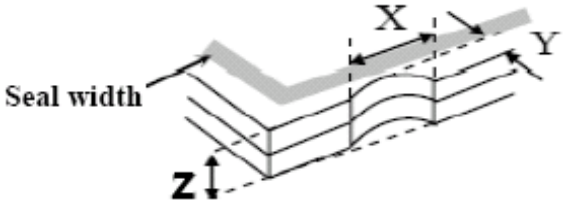
Round type
 

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. 01)

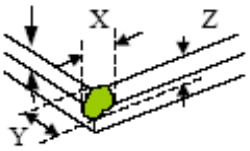
NO	Item	Criterion	Level
07	The crack of glass	Symbols： X : The length of crack　Y : The width of crack. Z : The thickness of crack　D : terminal length t : The thickness of glass　a : LCD side length 7.1 General glass chip： 7.1.1 Chip on panel surface and crack between panels:    【OK】  【NG】  	Minor

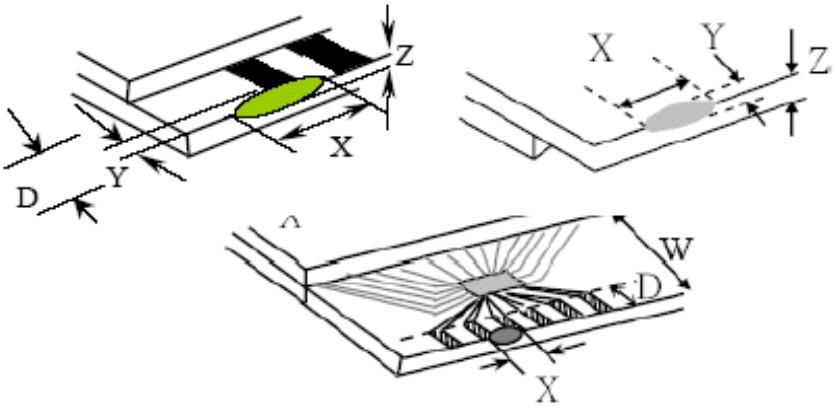
X	Y	Z
≦ a	Crack can't enter viewing area	≦1/2 t
≦ a	Crack can't exceed the half of SP width.	1/2 t < Z ≦2 t

◆Specification For Monotype and Color STN：　(Ver. 01)

<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td rowspan="2">07</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　　D : terminal length
t : The thickness of glass　　a : LCD side length

7.1.2 Corner crack：
 

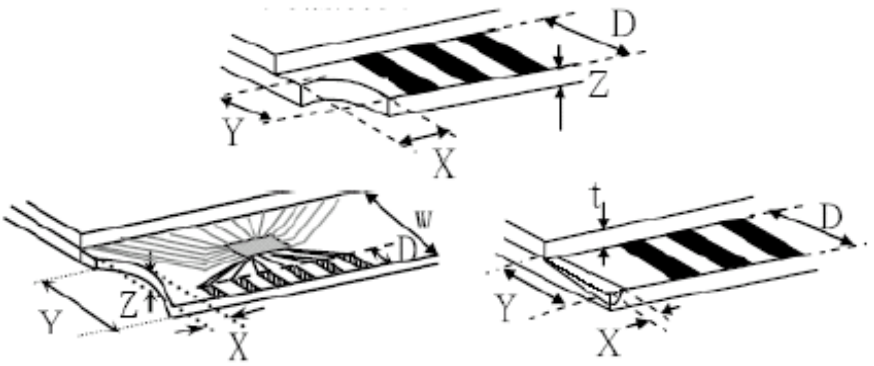
<table><tr><th>X</th><th>Y</th><th>Z</th></tr><tr><td>≦1/5 a</td><td>Crack can’t enter viewing area</td><td>Z ≦ 1/2 t</td></tr><tr><td>≦1/5 a</td><td>Crack can’t exceed the half of SP width.</td><td>1/2 t < Z ≦ 2 t</td></tr></table></td><td rowspan="2">Minor</td></tr>
<tr><td>7.2 Protrusion over terminal：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

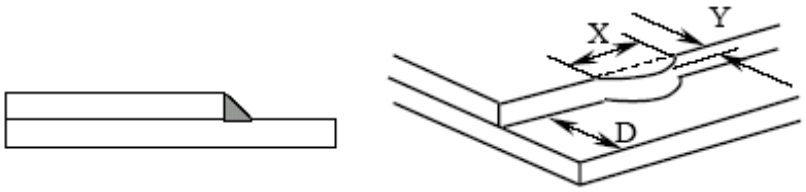
<table><tr><th></th><th>X</th><th>Y</th><th>Z</th></tr><tr><td>Front</td><td>≦ a</td><td>≦ 1/2 D</td><td>≦ t</td></tr><tr><td>Back</td><td colspan="3">Neglect</td></tr></table></td></tr>
</table>

◆Specification For Monotype and Color STN：　(Ver.01)

<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　　D : 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>≦D</td><td>≦t</td></tr>
</table>
7.2.3 Glass remain：


<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦ a</td><td>≦ 1/3 D</td><td>≦ t</td></tr>
</table>
</td><td>Minor</td></tr>
</table>

◆Specification For Monotype and Color STN：　(Ver. 01)

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. 01)

NO.	TEST ITEM	TEST CONDITION
1	High Temperature Storage Test	Keep in +80 ±2 96 hrs Surrounding temperature, then storage at normal condition 4hrs.
2	Low Temperature Storage Test	Keep in -30 ±2 96 hrs Surrounding temperature, then storage at normal condition 4hrs.
3	High Temperature / High Humidity Storage Test	Keep in +60 / 90% R.H duration for 96 hrs Surrounding temperature, then storage at normal condition 4hrs. (Excluding the polarizer)
4	ESD Test	Air Discharge: Apply 6 KV with 5 times Discharge for each polarity +/- | Contact Discharge: Apply 250V with 5 times discharge for each polarity +/- 1. Temperature ambinace: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 s) (Tolerance if the output voltage indication: ±5%)
5	Temperature Cycling Storage Test	-20 → +25 → +70 → +25 (30mins) (5mins) (30mins) (5mins) 10 Cycle Surrounding temperature, then storage at normal condition 4hrs.
6	Vibration Test (Packaged)	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
7	Drop Test (Packaged)	Packing Weight (Kg) | Drop Height (cm) 0 ~ 45.4 | 122 45.4 ~ 90.8 | 76 90.8 ~ 454 | 61 Over 454 | 46 Drop direction : 1 corner / 3 edges / 6 sides etch 1times

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 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.

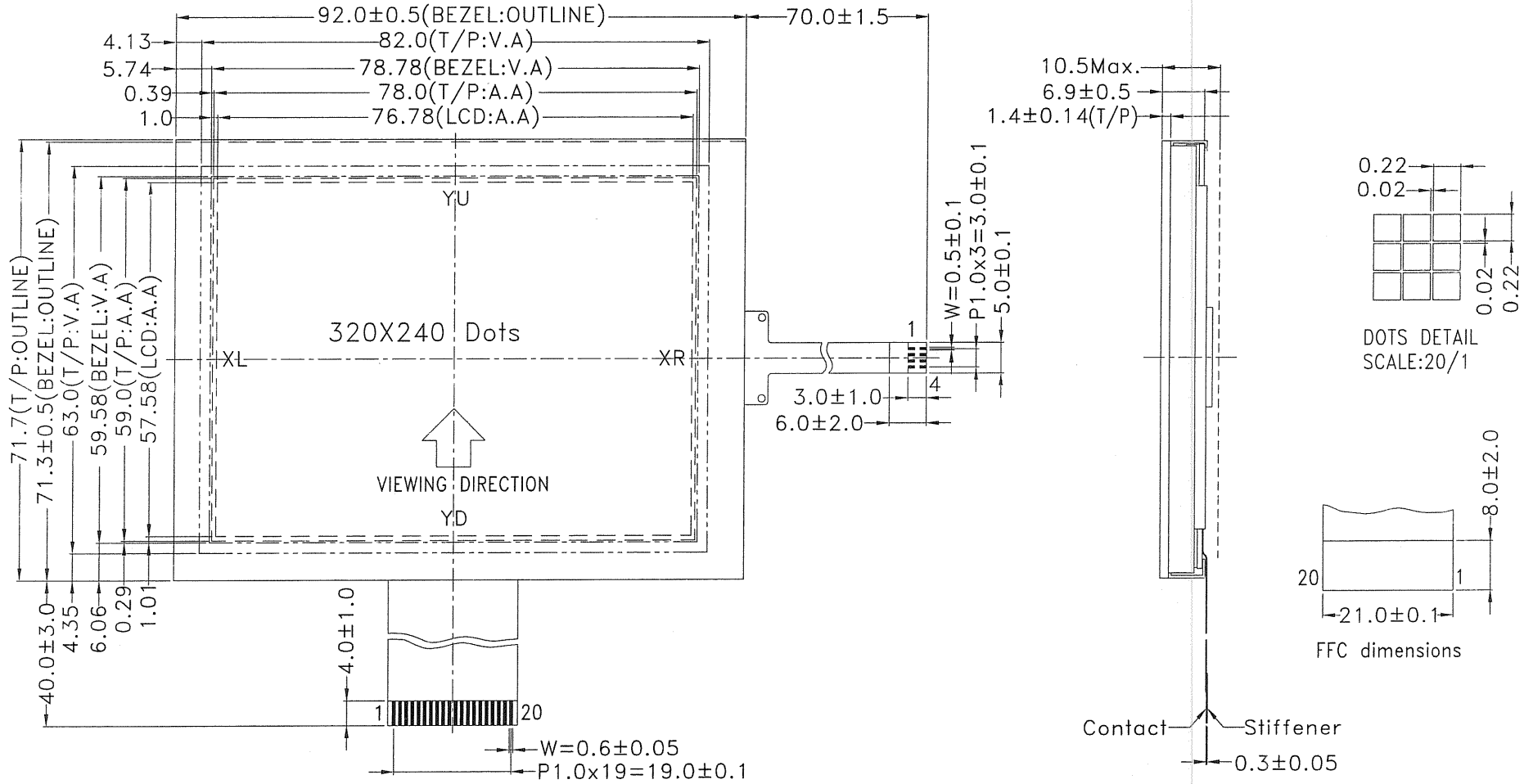
5.4 TERMS OF WARRANTY

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.



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

REV	DESCRIPTION	DATE

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

				APPROVED	CHECKER	DRAWN
SCALE:1/1	UNIT:mm	PAGE:1/1		研發 95.7.21 張慶源	研發 2005-7-7 李美倫	研發 2005-7-7 賴銘佶
圖面名稱	PG320240WRFHE9HYUQ					
圖面編號	PG-03104-249	EDI	0			

林忠聖

2-060-01-01

LCM Model	PG320240WRFHE9HYUQ
版次Ver.0	

LCM包裝規格書
LCM Packaging Specifications

研發 95.7.21 張慶源 | 研發 2005-7-7 李美倫 | 研發 2005-7-7 賴銘信

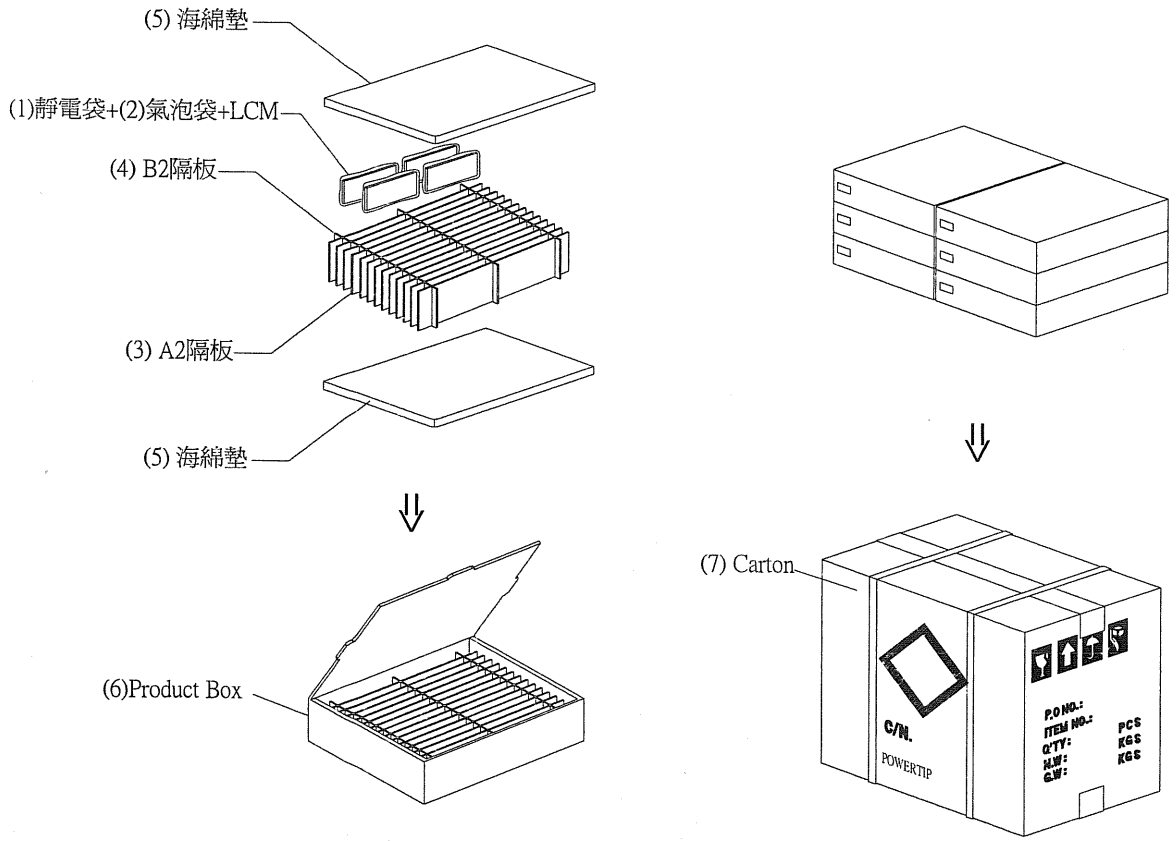
1.包裝材料規格表 (Packaging Material) : (per carton)

No.	Item	Model	Dimensions (mm)	Quantity
1	成品 (LCM)	PG320240WRFHE9HYUQ	92.0 X 71.3	96
2	靜電袋(1)	BAG150120ARA0A	150 X 120	96
3	氣泡袋(2)	BAG240100AWB0A	240 X 100	96
4	A2隔板(3)	BX29300070BM0A	293 X 70 X 2.5	66
5	B2隔板(4)	BX24500070BL0A	245 X 70 X 2.5	18
6	海綿墊(5)	OTFOAM00006ABA	290 X 240 X 10	12
7	C3內盒(6)Product Box	BX31025510AABA	310 X 255 X 100	6
8	外紙箱(7)Carton	BX52732536CCBA	527 X 325 X 360	1
9				

2.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



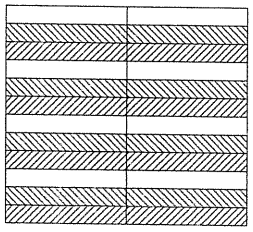
特 記 事 項 (REMARK)

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)

3.放置格示意圖:



1. ▨ 模組 2. □ 空格

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