POWERTIP TECH. CORP.

SPECIFICATIONS

CUSTOMER	:	CKR001
SAMPLE CODE	:	SE9665WRF-002-I08Q
MASS PRODUCTION CODE	:	PE9665WRF-002-I08Q
SAMPLE VERSION	:	01
SPECIFICATIONS EDITION	:	002
DRAWING NO. (Ver.)	:	JLMD- PE9665WRF-002-I08Q _ 001
PACKAGING NO. (Ver.)	:	JPKG- PE9665WRF-002-I08Q _ 001

Customer Approved

Date:

POWERTIP
2014.03.10
JS RD APPROVED

Approved	Checked	Designer
閆偉	劉進	徐明菲

□ Preliminary specification for design input

■ Specification for sample approval

POWERTIP TECH. CORP.

Headquarters:

No.8, 6th Road, Taichung Industrial Park,
Taichung, Taiwan
台中市 407 工業區六路 8 號

TEL: 886-4-2355-8168
FAX: 886-4-2355-8166

E-mail: sales@powertip.com.tw
Http://www.powertip.com.tw

History of Version

Date (mm / dd / yyyy)	Ver.	Edi.	Description	Page	Design by
01/22/2014	01	001	New Drawing	-	徐明菲
03/07/2014	01	002	New Sample	-	徐明菲

Total : 26 Pages

Contents

Note：For detailed information please refer to IC data sheet：SITRONIX –ST7579-G2

1. SPECIFICATIONS

1.1 Features

Item	Standard Value
Display Type	96 * 65 Dots
LCD Type	FSTN, Positive, White,Transmissive,Extended Temp.
Driver Condition	LCD Module :1/68 Duty, 1/9 Bias
Viewing Direction	6 O'clock
Weight	-
Interface	3-line SPI (serial peripheral interface)
Driver IC	SITRONIX – ST7579-G2
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer web site : http://www.powertip.com.tw/news.php?area_id_view=1085560481/

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	34.0 (W) * 30.4 (L) * 3.1 (H)	mm
Viewing Area	27.8 (W) * 18.9 (L)	mm
Active Area	25.42 (W) * 16.88 (L)	mm
Dot Size	0.245 (W) * 0.24 (H)	mm
Dot Pitch	0.265 (W) * 0.26 (H)	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	+3.6	V
LCD Driver Supply Voltage	V0–XV0	-	-0.3	+15	V
LCD Power driving voltage	VG,VM	-	-0.3	V_{DD}	V
Operating Temperature	T_{OP}	-	-20	70	°C
Storage Temperature.	T_{ST}	-	-30	80	°C
Storage Humidity	H_D	Ta＜60 ℃	20	90	%RH

1.4 DC Electrical Characteristics

V_{DD} = 2.8±0.2V, V_{SS} = 0V, Ta = 25℃

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Logic Supply Voltage	V_{DD}	-	2.6	2.8	3.0	V
"H" Input Voltage	V_{IH}	-	0.7V_{DD}	-	V_{DD}	V
"L" Input Voltage	V_{IL}	-	V_{SS}	-	0.3V_{DD}	V
"H" Output Voltage	V_{OH}	I_{OUT}=1mA	0.8V_{DD}	-	V_{DD}	V
"L" Output Voltage	V_{OL}	I_{OUT}=-1mA	V_{SS}	-	0.2V_{DD}	V
Supply Current	I_{DD}	V_{DD}= 2.8V;V_{OP}= 8.5V; Pattern= Horizontal *1	-	0.3	0.5	mA
LCM Driver Voltage	V_{OP}*2	-20℃	8.7	8.8	9.0	V
		25℃	8.3	8.5	8.7	
		70℃	7.9	8.0	8.1	

NOTE: *1 The Maximum current display;

*2 The V_{OP} test point is V0~XV0.

1.5 Optical Characteristics

LCD Panel: 1/68 Duty, 1/9 Bias, V_{LCD} = 8.5 V, Ta = 25°C

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit	Reference
Response Time	Rise	tr	-	-	120	180	ms	Note 2
	Fall	tf		-	200	300		
Viewing angle range	Top	θ+	C≥2.0	-	20	-	-	Note 1
	Bottom	θ-		-	30	-		
	Left	θL		-	20	-		
	Right	θR		-	25	-		
Contrast Ratio		C	θ = 0°	-	3	-	-	Note 3
Average Brightness (with LCD) *2		IV	IF= 20 mA	85	110	-	cd/m^2	Note 4
CIE Color Coordinate (With LCD) *2		X		0.23	0.28	0.33	-	
		Y		0.23	0.28	0.33	-	
Uniformity *1		△B		70	-	-	%	

Note 4:

1：△B=B(min) / B(max) * 100%

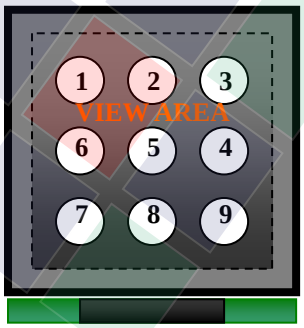
2：Measurement Condition for Optical Characteristics:

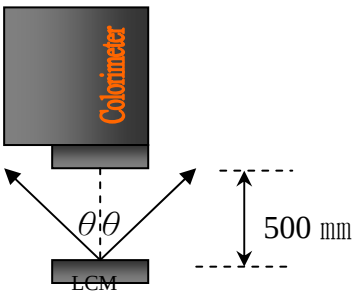
a：Environment: 25℃±5℃ / 60±20%R.H，no wind，dark room below 10 Lux at typical lamp current and typical operating frequency.

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%



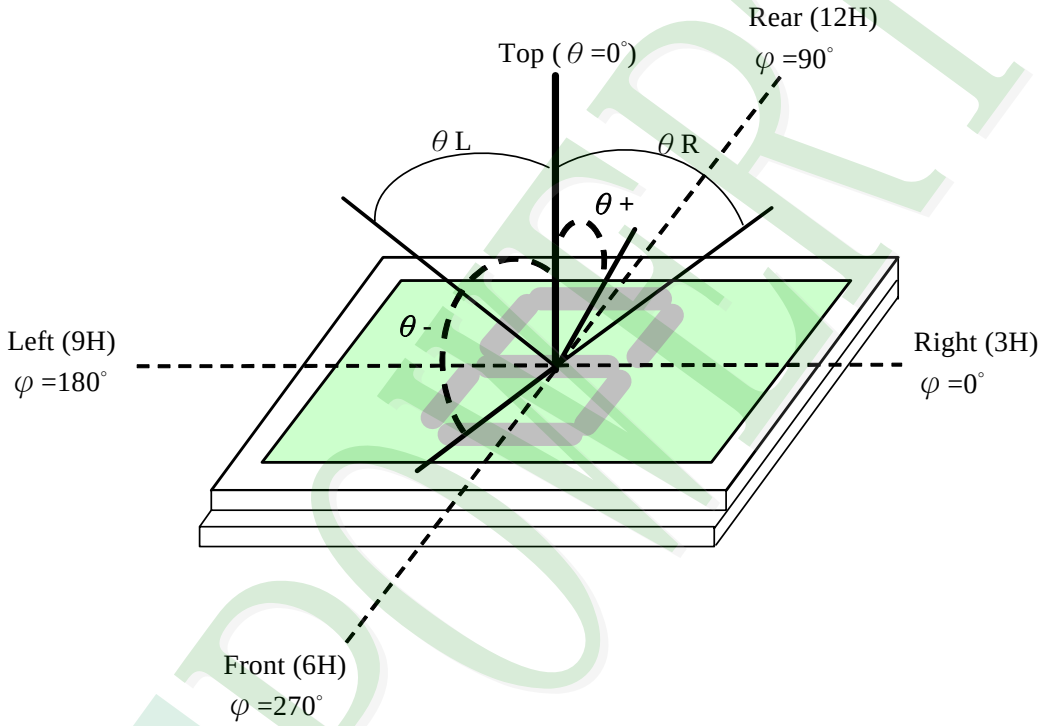


Colorimeter=BM-7 fast

Note 1.

Optical characteristics-2

Viewing angle

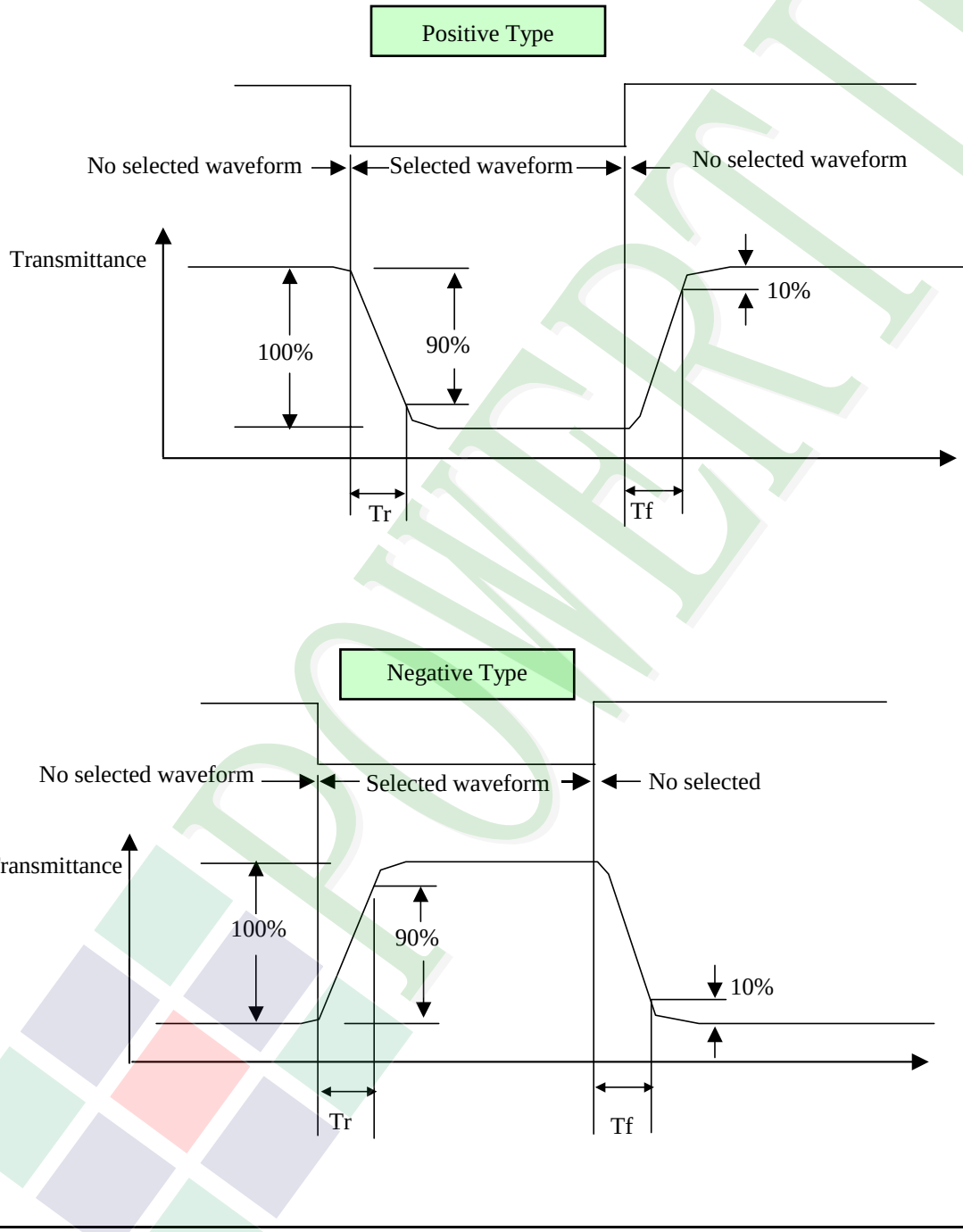


Viewing angle

Note 2.

Optical characteristics-3

Fig.2 Definition of response time



Electrical characteristics-2

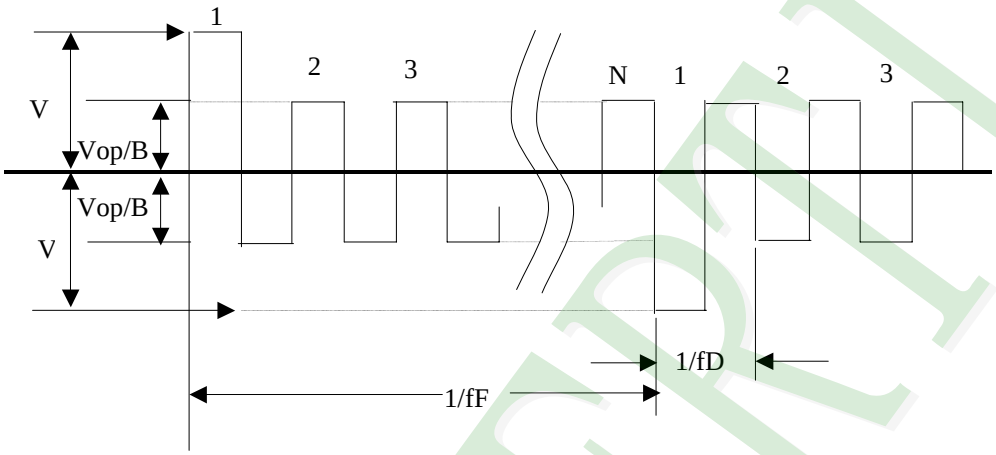
※2 Drive waveform

Vop: Drive voltage fF: Frame frequency

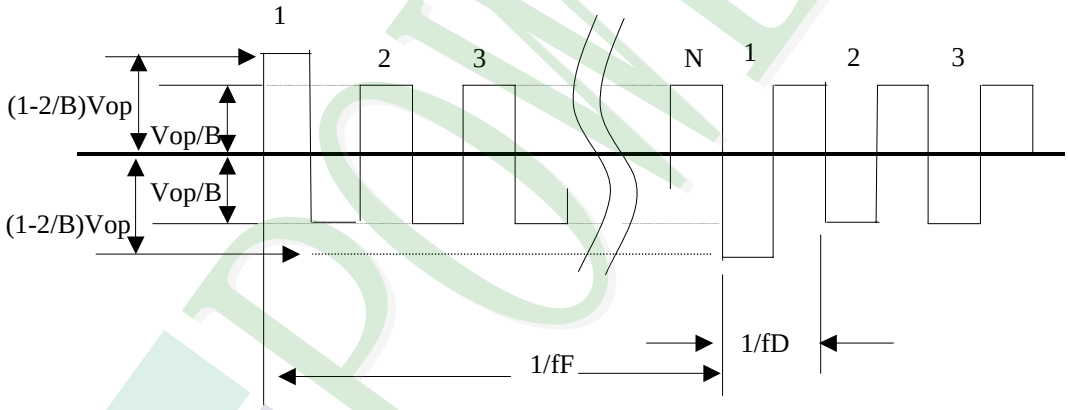
1/B: Bias fD: Drive frequency

N: Duty

(1) Selected waveform



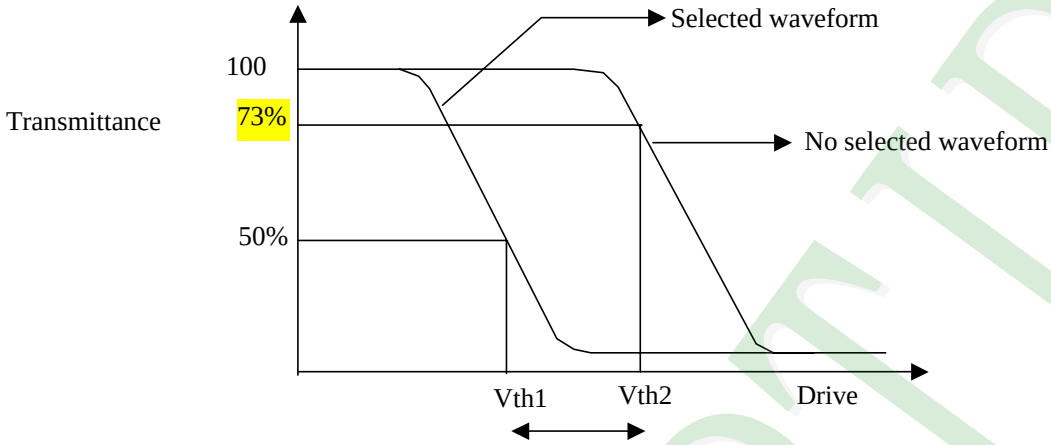
(2) Non- Selected wave form



Note:

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

Note 3. : Definition of Vth

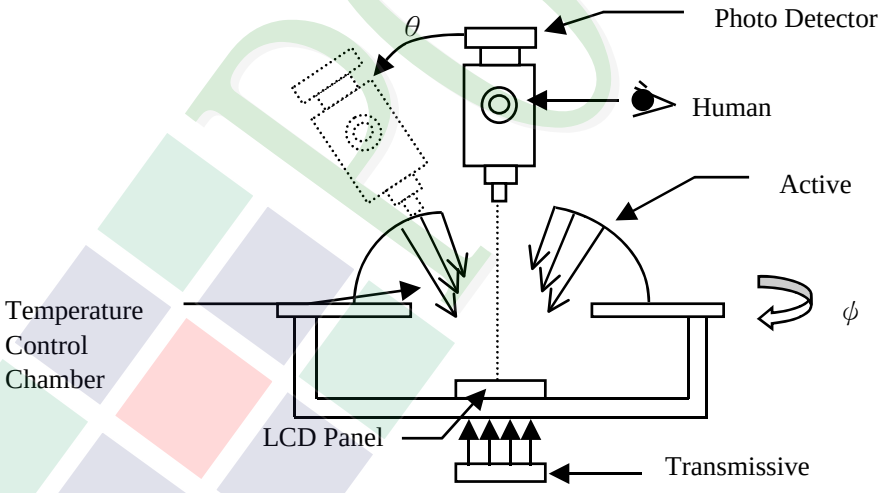


Active voltage range

	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

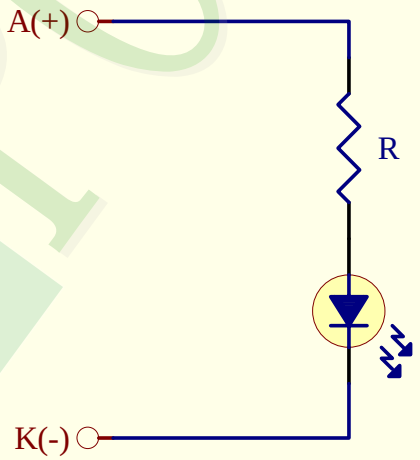
Maximum Ratings

Item	Symbol	Conditions	Min.	Max.	Unit
Forward Current	IF	Ta =25°C	-	30	mA
Reverse Voltage	VR	Ta =25°C	-	5	V
Power Dissipation	PD	Ta =25℃	-	105	mW

Electrical / Optical Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF= 20mA	3.1	3.3	3.5	V
Reverse Current	IR	VR=5V	-	-	0.05	mA
Average Brightness (without LCD)	IV	IF= 20mA	400	500	600	cd/m^2
CIE Color Coordinate (without LCD)	X	IF= 20mA	0.25	0.28	0.31	-
	Y		0.25	0.28	0.31	-
Color	White					

Internal Circuit Diagram:



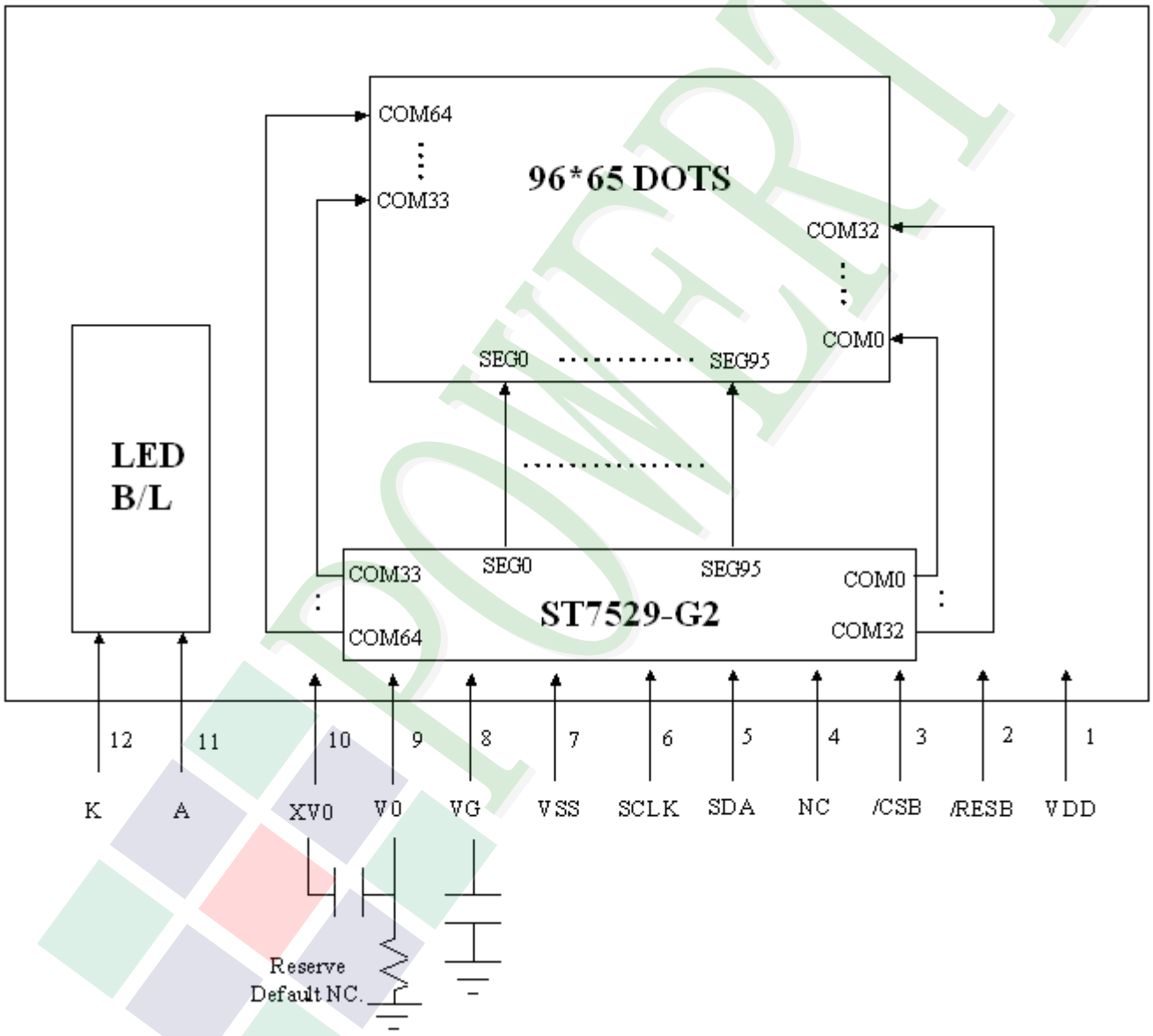
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

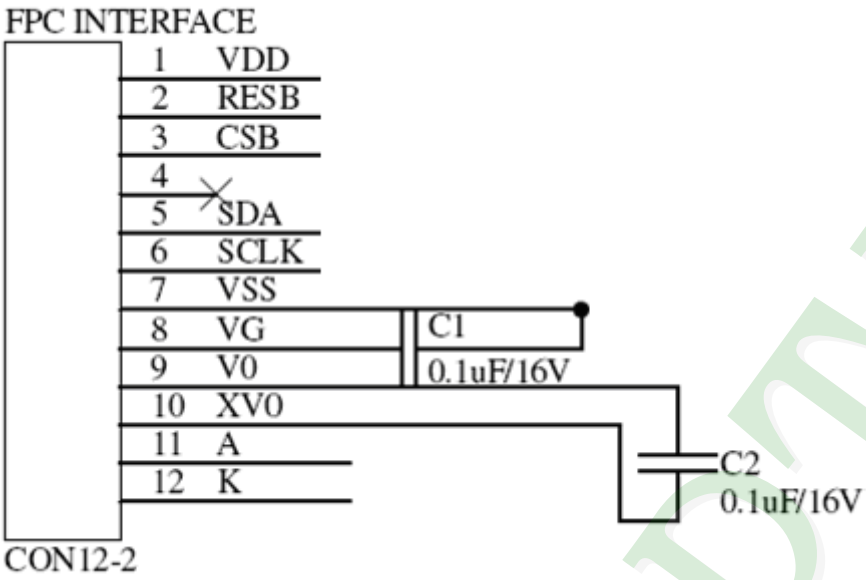
2.1.2 Block Diagram



2.2 Interface Pin Description

Pin No.	Symbol	Function
1	VDD	Power supply.
2	/RESB	Reset input pin. When RESB is“L”, internal initialization is executed.
3	/CSB	Chip select input pin. Interface access is enabled when CSB is“L”.
4	NC	Not connection.
5	SDA	Serial data input,
6	SCLK	Serial clock input.
7	VSS	Ground.
8	VG	LCD driving voltage for segments. Connect a capacitor 0.1uF between this terminal and VSS.
9	V0	LCD driving voltage for commons at negative frame. Connect a capacitor 0.1uF between this terminal and the XV0 terminal.
10	XV0	LCD driving voltage for commons at positive frame. Connect a capacitor 0.1uF between this terminal and the V0 terminal.
11	A	Backlight LED anode input pin.
12	K	Backlight LED cathode input pin.

2.2.1 Application Notes:

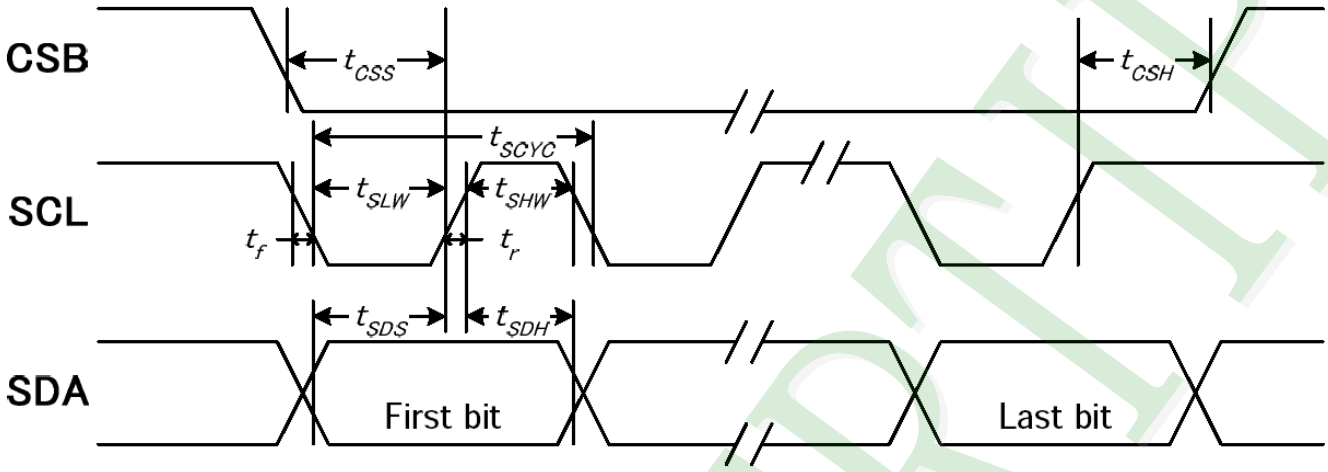


2.2.2 Refer Initial code:

```
void initial ()
{
    WriteCom(0x2b);        //FUNCTION SET H[1:0]=11
    WriteCom(0x0c);        //FRAME RATE:73HZ
    WriteCom(0x9b);        //BOOSTER SET 5X
    WriteCom(0x28);        //FUNCTION SET H[1:0]=00
    WriteCom(0x05);        //PRS=0 V0 programming range LOW
    WriteCom(0x29);        //FUNCTION SET H[1:0]=01
    WriteCom(0xbb);        //SET V0
    WriteCom(0x12);        //SET BIAS: 1/9
    WriteCom(0x28);        //FUNCTION SET H[1:0]=00
    WriteCom(0x80);        //SET X ADDRESS
    WriteCom(0x40);        //SET Y ADDRESS
    WriteCom(0x0c);        //DISPLAY CONTROL
}
```

2.3 Timing Characteristics

SERIAL INTERFACE (3-Line Interface)

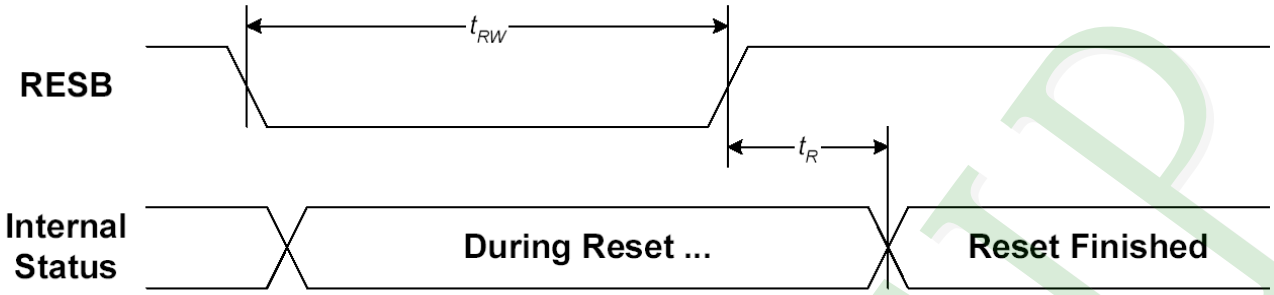


Item	Signal	Symbol	Condition	Min.	Max.	Unit
Serial clock period	SCLK	tSCYC		180	—	ns
SCLK “H” pulse width		tSHW		90	—	
SCLK “L” pulse width		tSLW		90	—	
Data setup time	SDA	tSDS		30	—	
Data hold time		tSDH		20	—	
CSB-SCLK time	CSB	tCSS		30	—	
CSB-SCLK time		tCSH		160	—	

*1 The input signal rise and fall time (tr, tf) are specified at 15 ns or less.

*2 All timing is specified using 20% and 80% of VDD1 as the standard.

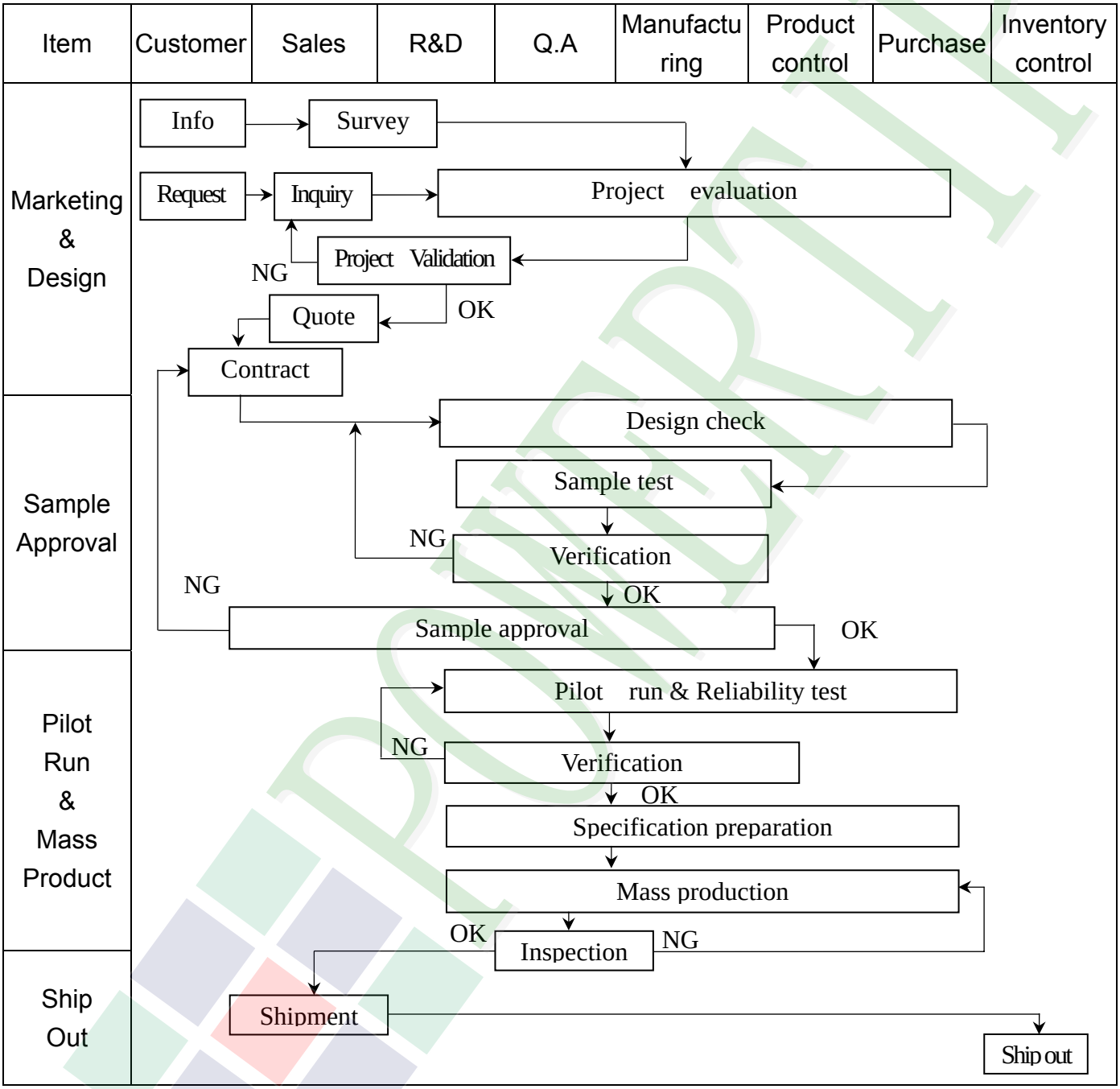
RESET TIMING

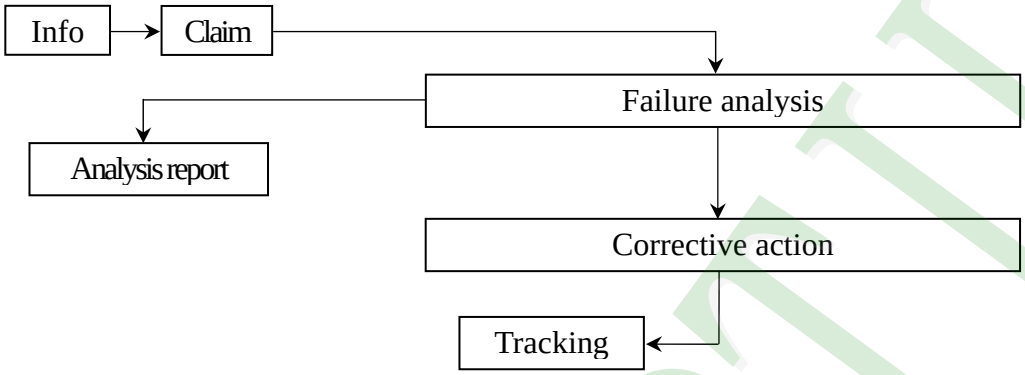


Item	Symbol	Condition	Min.	Max.	Unit
Reset time	tR		—	2.0	us
Reset “L” pulse width	tRW		2.0		

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)

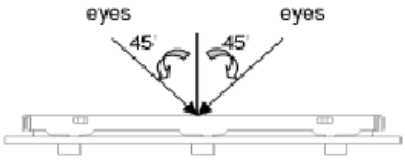


Fig.1

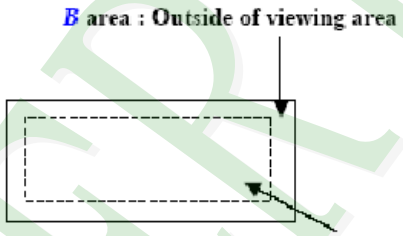


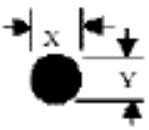
Fig. 2

◆ 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

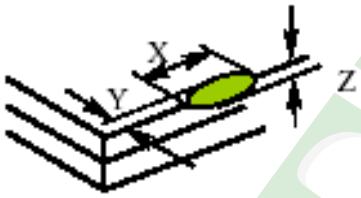
Line type
 
</td><td>5. 1 Round type:
5. 1. 1 display only :
• White and black spots on display ≦ 0. 30 mm , no more than 4 white or black spots present.
• Densely spaced : NO more than two spots or lines within 3 mm.

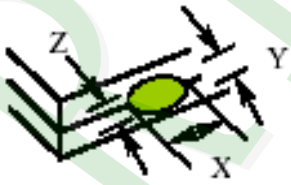
5. 1. 2 Non-display :
<table>
<tr><th>Dimension (diameter : Φ)</th><th>Acceptance (Q'ty)</th></tr>
<tr><td>Φ≦0. 10</td><td>Accept no dense</td></tr>
<tr><td>0. 10 ＜ Φ ≦ 0. 20</td><td>3</td></tr>
<tr><td>0. 20 ＜ Φ ≦ 0. 30</td><td>2</td></tr>
<tr><td>Total quantity</td><td>4</td></tr>
</table>
5. 1. 3 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)

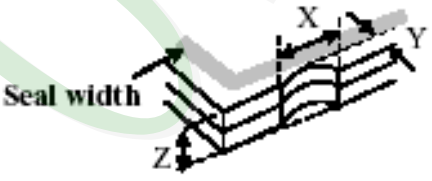
<table>
<tr><th>NO</th><th>Item</th><th>Criterion</th><th>Level</th></tr>
<tr><td>07</td><td>The crack of glass</td><td>
Symbols：

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

7.1 General glass chip：
7.1.1 Chip on panel surface and crack between panels:




【OK】

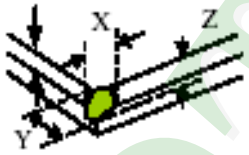

【NG】


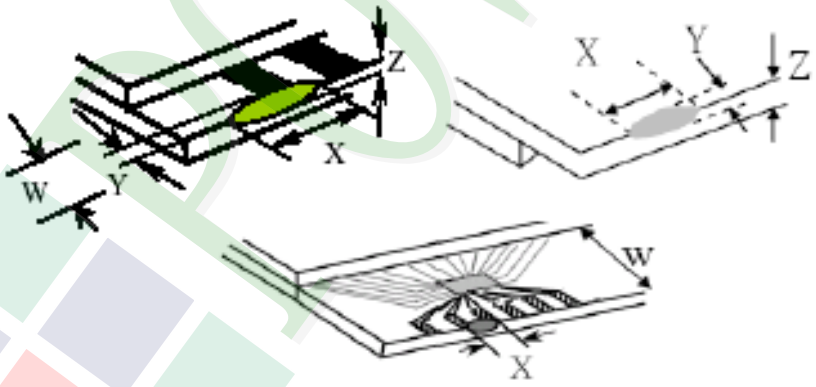
<table>
<tr><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>≦ a</td><td>Crack can't enter viewing area</td><td>≦1/2 t</td></tr>
<tr><td>≦ a</td><td>Crack can't exceed the half of SP width.</td><td>1/2 t ＜ Z ≦2 t</td></tr>
</table>
</td><td>Minor</td></tr>
</table>

◆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

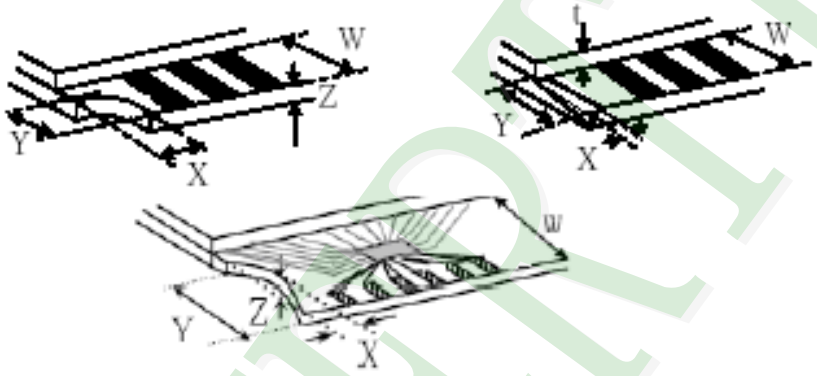
7.1.2 Corner crack：


<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>
7.2 Protrusion over terminal：
7.2.1 Chip on electrode pad：


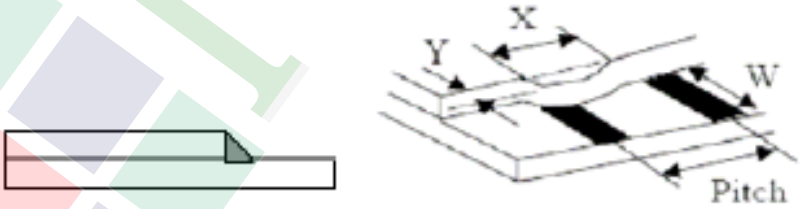
<table>
<tr><th></th><th>X</th><th>Y</th><th>Z</th></tr>
<tr><td>Front</td><td>≦ a</td><td>≦ 1/2 W</td><td>≦ t</td></tr>
<tr><td>Back</td><td colspan="3">Neglect</td></tr>
</table>
</td><td>Minor</td></tr>
</table>

◆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.B01)

<table>
<tr><th>NO.</th><th>TEST ITEM</th><th>TEST CONDITION</th></tr>
<tr><td>1</td><td>High Temperature Storage Test</td><td>Keep in +80±2℃ 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td>2</td><td>Low Temperature Storage Test</td><td>Keep in -30 ±2℃ 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td>3</td><td>High Temperature / High Humidity Storage Test</td><td>Keep in +60 ℃ / 90% R.H duration for 96 hrs
Surrounding temperature, then storage at normal condition 4hrs.
(Excluding the polarizer)</td></tr>
<tr><td>4</td><td>Temperature Cycling Storage Test</td><td>-30℃ → +25℃ → +80℃ → +25℃
(30mins) (5mins) (30mins) (5mins)
10 Cycle
Surrounding temperature, then storage at normal condition 4hrs.</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">ESD Test</td><td>Air Discharge:
Apply 2 KV with 5 times Discharge for each polarity +/-</td><td>Contact Discharge:
Apply 250 V with 5 times discharge for each polarity +/-</td></tr>
<tr><td colspan="2">1. Temperature ambiance : 15℃～35℃
2. Humidity relative : 30%～60%
3. Energy Storage Capacitance(Cs+Cd) : 150pF±10%
4. Discharge Resistance(Rd) : 330Ω±10%
5. Discharge, mode of operation :
Single Discharge (time between successive discharges at least 1 sec) (Tolerance if the output voltage indication : ±5%)</td></tr>
<tr><td>6</td><td>Vibration Test (Packaged)</td><td colspan="2">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</td></tr>
<tr><td>7</td><td>Drop Test (Packaged)</td><td colspan="2">
<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 1time
</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.

5.3 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.

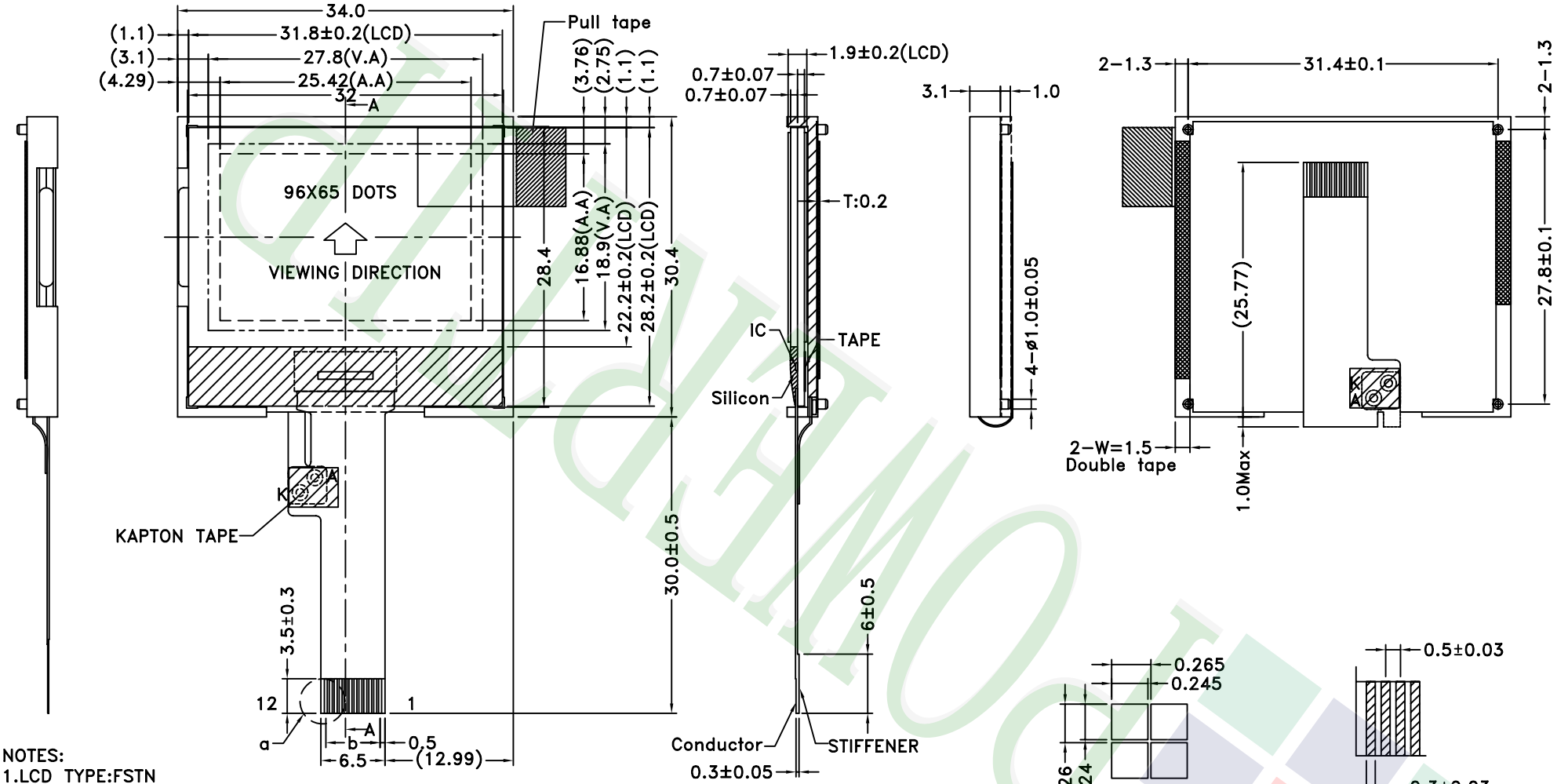
5.4 TERMS OF WARRANTY

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.



NOTES:
1.LCD TYPE:FSTN
2.LCD DISPLAY:POSITIVE/TRANSMISSIVE
3.VIEW DIRECTION: 6 O'CLOCK
4.Top: -20~70°C Tst:-30~80°C
5.The tolerance unless classified ±0.3mm
6.IC NO.:ST7579-G2
7.b:P0.5X11=5.5±0.1
8.BACKLIGHT: WHITE , 1PCS LED DIES
9.CN:ENTERY 6701K-E12N-00L OR EQUVALENT

REV	REV BY	REVISER	DATE
007			
006			
005			
004			
003			
002			
001	NEW DRAWING	Air	2014/02/07

PART NO: PE9665WRF-002-I08Q

DRAWING NAME : JLMD-PE9665WRF-002-I08Q

TITLE: LCD Module Drawing

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

Design	Air	⟨3⟩	Surface		
Check	Terry	Unit	MM	Material	
Approve	Ryan	Scale	2:1	Thickness	
		Page	1/1	Quantity	

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

2-045-05-02

Ver.001	
Documents NO.	JPKG-PE9665WRF-002-I08Q

LCM包裝規格書
LCM Packaging Specifications (For Tray)

Approve	Check	Contact
Ryan	Terry	Air

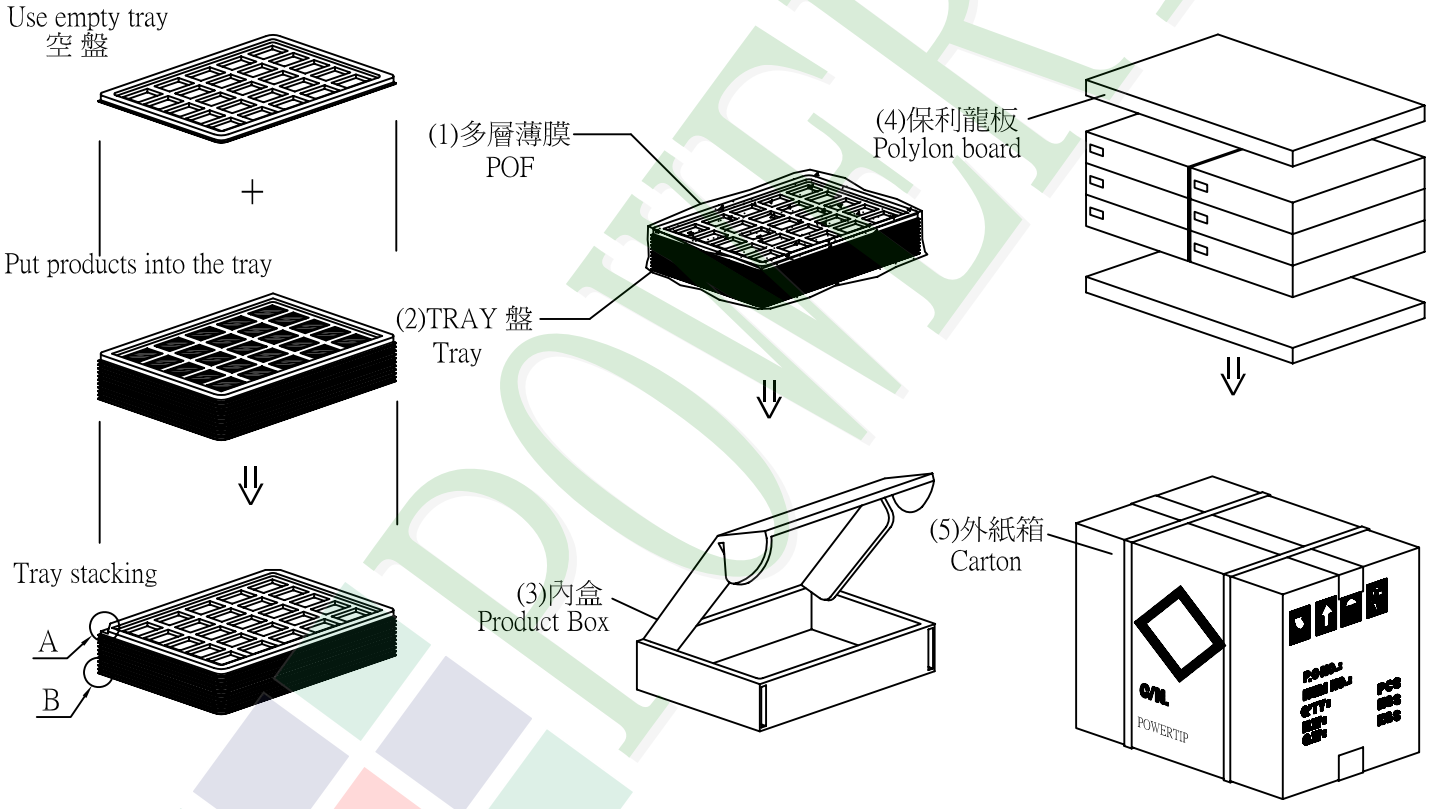
1.包裝材料規格表 (Packaging Material) : (per carton)

No.	Item	Model	Dimensions (mm)	1Pcs Weight	Quantity	Total Weight
1	成品 (LCM)	PE9665WRF-002-I08Q	34.0 X 30.4 X 3.1	0.0047	1296	6.0912
2	多層薄膜(1)POF	OTFILM0BA03ABA	19"X350X0.015	——	6	——
3	TRAY 盤 (2)Tray	TY00000000230	352 X 260 X 10.8	0.1	60	6.0
4	內盒(3)Product Box	BX36627063ABBA	393 X 274 X 68	0.2692	6	1.6152
5	保利龍板(4)Polylon board	OTPLB00PL08ABA	550 X 393 X 20	0.0284	2	0.0568
6	外紙箱(5)Carton	BX57041027CCBA	570 X 410 X 265	1.4208	1	1.4208
7						
8						
9						

2.一 整箱總重量 (Total LCD Weight in carton) : 15.18 Kg±10%

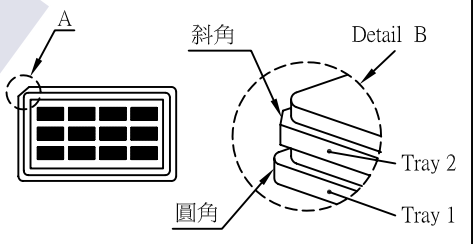
3.單箱數量規格表 (Packaging Specifications and Quantity) :

(1)LCM quantity per box : no per tray	24	x no of tray	9	=	216
(2)Total LCM quantity in carton : quantity per box	216	x no of boxes	6	=	1296



特 記 事 項 (REMARK)

1. Label Specifications :
依廠內標準作業



2.TRAY盤相疊時,需旋轉180度,請詳見B視圖
Rotate tray 180 degrees and place on top of stack.
Check the tray stack using Fig. B.

3.可適用於單品包裝
It's also suitable to Panel