

Version :1.0

<p style="text-align: center;">TECHNICAL SPECIFICATION</p> <p style="text-align: center;">MODEL NO. : PM062HT1</p>
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Revision History

Rev.	Issued Date	Revised Contents	Remark
0.1	Apr. 17 , 2009	New	
0.2	May.21 , 2009	<p>Modify</p> <p>Page 4 3.Mechanical Specifications Gray scale inversion direction 12 o'clock → 6 o'clock</p> <p>Page 5 4. Mechanical Drawing of TFT-LCD module</p> <p>Page 8 6.Touch Panel Characteristics 6.1) Pin Assignment 6.2) Electrical Performance</p> <p>Page 9 6.4) Integration Design Guide</p>	
0.3	June.17 , 2009	<p>Modify</p> <p>Page 22 16. Reliability Test Vibration test From Frequency : 10 ~ 55 Hz, Amplitude : 1 mm Sweep time: 11 min To Frequency : 5Hz~100Hz Gravity: 19.6 m/s² (2G)</p>	
0.4	Nov.06 , 2009	<p>Modify</p> <p>Page 22 16. Reliability Test Vibration test From Frequency : 5Hz~100Hz Gravity: 19.6 m/s² (2G) Test Period: 6 Cycles for each direction of X, Y, Z To Frequency : 10 ~ 55 Hz, Amplitude : 1 mm Sweep time: 11 min Test Period: 6 Cycles for each direction of X, Y, Z</p>	
1.0	Feb. 22 , 2010	<p>Modify</p> <p>Page 5 3.Mechanical Specifications Weight 148±10</p> <p>Page 6 Mechanical Drawing of TFT-LCD module Outline Drawing</p> <p>Page 9 6.Touch Panel Characteristics 6.3) Durability Performance from</p> <div style="border: 1px solid black; padding: 5px;"> <p>1. Hitting Durability:␣ At least 35,000,000 times with R8.0mm silicon rubber, 250g, 3times/sec.␣</p> <p>2. Sliding Durability:␣ At least 1,000,000 times with R0.8mm polyacetal stylus, 250g, 35mm/sec.␣</p> </div> <p>to</p> <div style="border: 1px solid black; padding: 5px;"> <p>1. Hitting Durability:␣ At least 10,000,000 times with R8.0mm silicon rubber, 150g, 3times/sec.␣</p> <p>2. Sliding Durability:␣ At least 100,000 times with R0.8mm polyacetal stylus, 150g, 50mm/sec.␣</p> </div>	

<p>1.0</p>	<p>Feb. 22 , 2010</p>	<p>Modify Page 9 6.Touch Panel Characteristics Operation Force TBD → 80g Linearity(X direction) Max. 3% → 1.5% Linearity(Y direction) Max. 6% → 1.5% Page 11 8-2) Recommended Driving Condition for Back Light Page 12 8-3) Backlight driving & Power Consumption Page 17 13. Power On Sequence VCC→VDD Page 17 Optical Characteristics 14-1) Specification Page 23 16. Reliability Test From</p> <table border="1" data-bbox="494 689 1324 784"> <tr> <td>10^o</td> <td>Hitting Durability Test^o (Touch panel)^o</td> <td>35,000,000 times, with R 3.0 mm silicon rubber,^o 250g, 3times/sec^o</td> <td>o</td> </tr> <tr> <td>11^o</td> <td>Sliding Durability Test^o (Touch panel)^o</td> <td>1,000,000 times, with R 0.8 mm polyacetal stylus,^o 250g, 35mm/sec^o</td> <td>o</td> </tr> </table> <p>to</p> <table border="1" data-bbox="494 817 1324 911"> <tr> <td>10^o</td> <td>Hitting Durability Test^o (Touch panel)^o</td> <td>10,000,000 times, with R 3.0 mm silicon rubber,^o 150g, 3times/sec^o</td> <td>o</td> </tr> <tr> <td>11^o</td> <td>Sliding Durability Test^o (Touch panel)^o</td> <td>100,000 times, with R 0.8 mm polyacetal stylus,^o 150g, 50mm/sec^o</td> <td>o</td> </tr> </table> <p>Delete Page 11 7.Absolute Maximum Ratings: Backlight Driving Frequency Page 11 8-1) Recommended Operating Conditions Vcom Voltage</p> <p>Add Page 9 5.Input Terminals 5-2) Backlight driving Page 9 6.Touch Panel Characteristics Add Note 6-1 Page 24 17. Packing Diagram</p>	10 ^o	Hitting Durability Test ^o (Touch panel) ^o	35,000,000 times, with R 3.0 mm silicon rubber, ^o 250g, 3times/sec ^o	o	11 ^o	Sliding Durability Test ^o (Touch panel) ^o	1,000,000 times, with R 0.8 mm polyacetal stylus, ^o 250g, 35mm/sec ^o	o	10 ^o	Hitting Durability Test ^o (Touch panel) ^o	10,000,000 times, with R 3.0 mm silicon rubber, ^o 150g, 3times/sec ^o	o	11 ^o	Sliding Durability Test ^o (Touch panel) ^o	100,000 times, with R 0.8 mm polyacetal stylus, ^o 150g, 50mm/sec ^o	o	
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TECHNICAL SPECIFICATION

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1. Application

This data sheet applies to a color TFT LCD panel, PM062HT1. PM062HT1 panel applies to OA product, computer peripheral, industrial meter, image communication and multi-media. If you must apply in severe reliability environment, please don't extend over PVI's reliability test conditions.

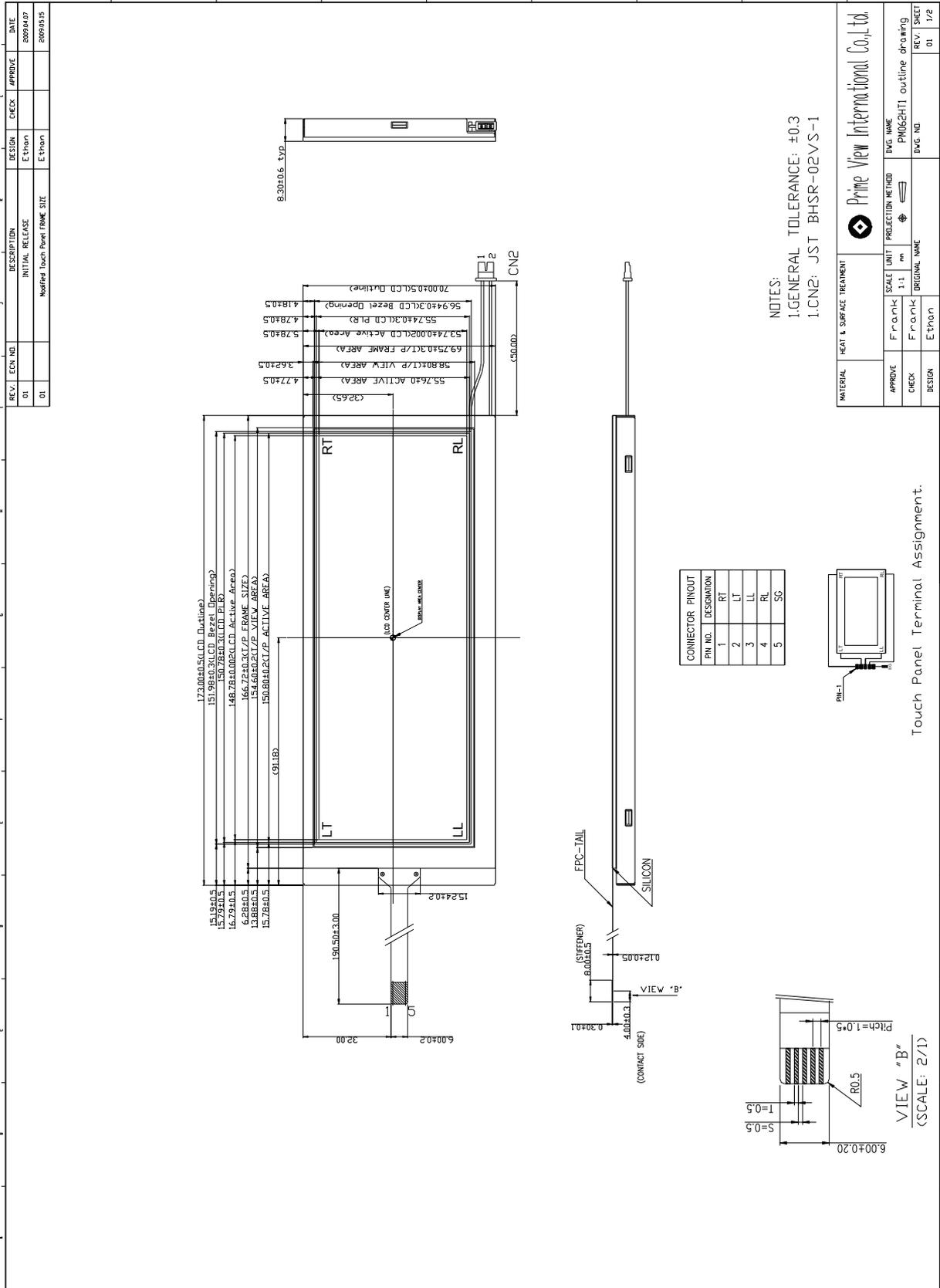
2. Features

- . HVGA (640*240 pixels) resolution
- . Amorphous silicon TFT LCD panel with back-light unit
- . Pixel in stripe configuration
- . Display Colors : 262,144 colors
- . +3.3V DC supply voltage for TFT LCD panel driving
- . Wide viewing angle
- . TTL interface
- . Module with resistive type touch panel .
- . Backlight driving DC/AC inverter not included in this module

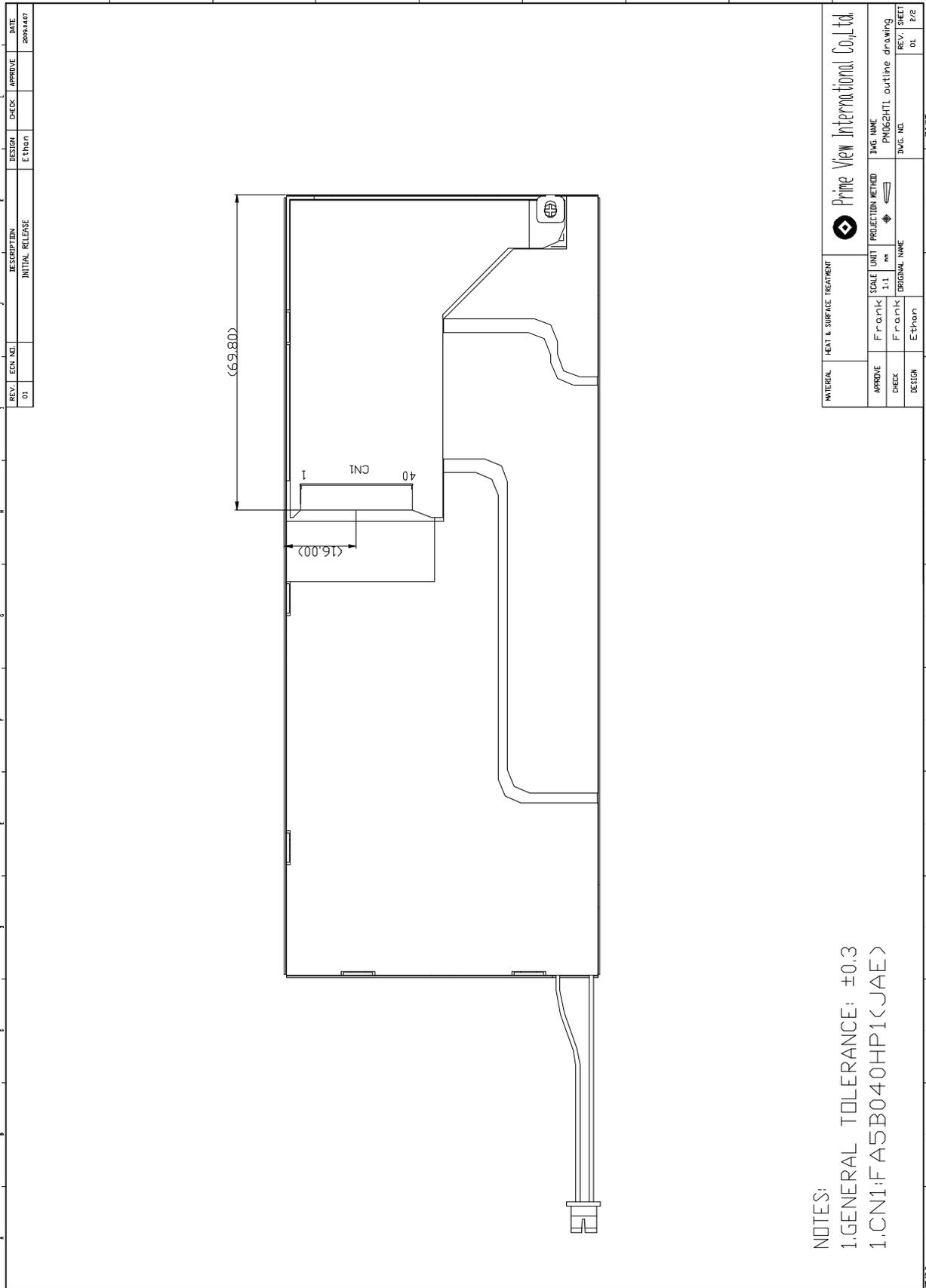
3. Mechanical Specifications

Parameter	Specifications	Unit
Screen Size	6.2 (diagonal)	inch
Display Format	640×(R, G, B)×240	dot
Display Colors	262,144	
Active Area	148.78(H)×53.74(V)	mm
Pixel Pitch	0.2325(H)×0.224(V)	mm
Pixel Configuration	Stripe	
Outline Dimension	173(W)×70 (H)×8.3 (typ.) (D)	mm
Weight	148±10	g
Back-light	CCFL, 1 tube	
Surface treatment	Anti-glare and Wide View Film	
Display mode	Normally white	
Surface treatment of Touch Panel	3H	
Gray scale inversion direction	6 o'clock [ref to Note 14-1]	

4. Mechanical Drawing of TFT-LCD Module
Outline Drawing : Front View (unit mm)



Outline Drawing : Rear View (unit mm)



5. Input Terminals

5-1) TFT-LCD Panel Driving

Connector type: FA5B040HP1(JAE)

Pin No.	Symbol	Function	Remark
1	VDD	Power Supply for Logic	
2	VDD	Power Supply for Logic	
3	VDD	Power Supply for Logic	
4	VDD	Power Supply for Logic	
5	NC	No Connection	
6	DTMG	Timing Signal for Data	
7	VSS	GND	
8	DCLK	Dot Clock	
9	VSS	GND	
10	NC	No Connection	
11	VSS	GND	
12	B5	Blue Data	
13	B4		
14	B3		
15	VSS	GND	
16	B2	Blue Data	
17	B1		
18	B0		
19	VSS	GND	
20	G5	Green Data	
21	G4		
22	G3		
23	VSS	GND	
24	G2	Green Data	
25	G1		
26	G0		
27	VSS	GND	
28	R5	Red Data	
29	R4		
30	R3		
31	VSS	GND	
32	R2	Red Data	
33	R1		
34	R0		
35	Vcom	Common Voltage (Generated by LCM)	
36	VSS	GND	
37	NC	No Connection	
38	NC	No Connection	
39	NC	No Connection	
40	NC	No Connection	

5-2) Backlight driving

Connector type: JST BHSR-02VS-1, PIN No 2 pin

Pin No	Symbol	Description	Remark
1	VL1	Input terminal (Hi voltage side)	
2	VL2	Input terminal (Low voltage side)	Note 5-1

Note 5-1: Low voltage side of backlight inverter connects with ground of inverter circuits.

6.Touch Panel Characteristics

6.1) Pin assignment:

Pin	Symbol	Function	Remark
1	RT	Analog Signal Touch Panel	Note 6-1
2	LT	Analog Signal Touch Panel	
3	LL	Analog Signal Touch Panel	
4	RL	Analog Signal Touch Panel	
5	SG	GND	

Note 6-1 :

Loop Resistance X = short RT and RL , short LT and LL , measure the resistance between RT and LT
 Loop Resistance Y = short RT and LT , short RL and LL , measure the resistance between RT and RL

6.2) Electrical Performance:

Parameters	Symbol	MIN.	Typ.	MAX.	Unit	Remark
Loop Resistance	X	20	-	500	Ω	
	Y	20	-	500	Ω	
Input Voltage	VT	-	5.0	-	V	
Linearity(X direction)		-	-	1.5	%	
Linearity(Y direction)		-	-	1.5	%	
Insulation Impedance		20	-	-	MΩ	DC 25V
Response Time		-	-	15	ms	
Operation Force		-	-	80	g	Note 6-2

Note 6-2 Input through 0.8R stylus or R8.0mm finger.

6.3) Durability Performance

1. Hitting Durability:

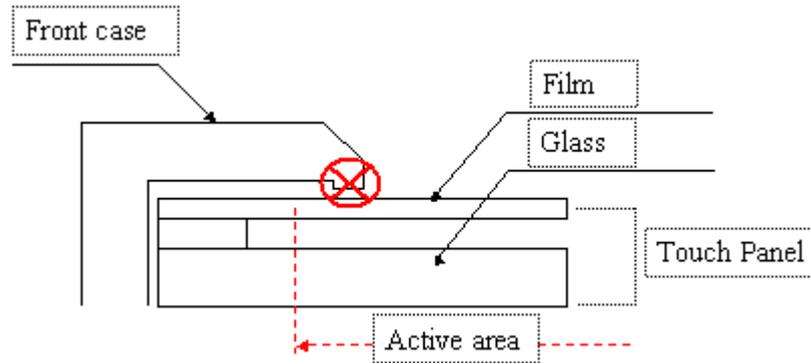
At least 10,000,000 times with R8.0mm silicon rubber, 150g , 3times/sec .

2. Sliding Durability:

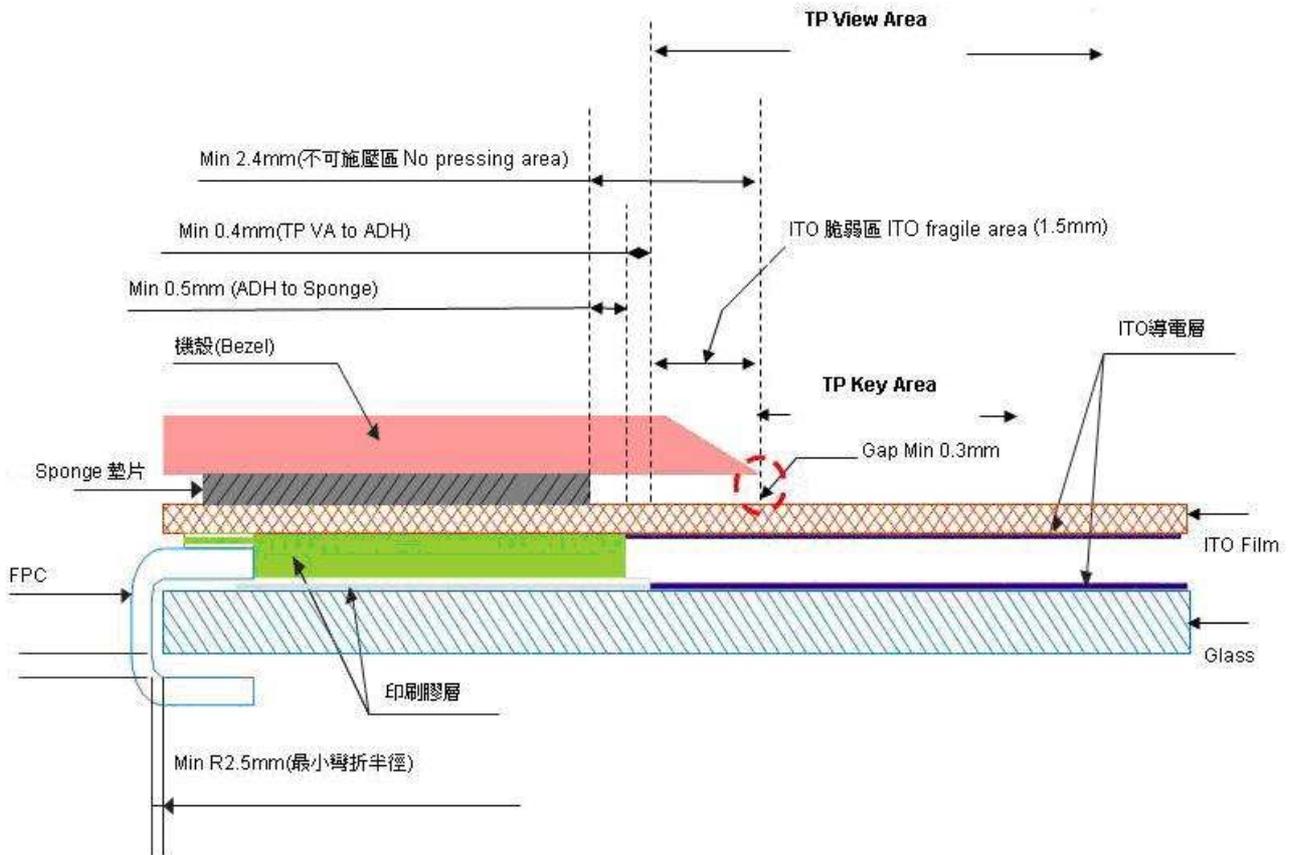
At least 100,000 times with R0.8mm polyacetal stylus , 150g , 50mm/sec.

6.4) Integration Design Guide

Avoid the design that Front-case overlap and press on the active area of the touch-panel.
 Give enough gap (over 0.5mm at compressed) between the front case and touch-panel to protect wrong operating.



Use a buffer material (Gasket) between the touch-panel and front-case to protect damage and wrong operating.
 Avoid the design that buffer material overlap and press on the inside of touch-panel viewing area.



Note : We strongly suggest to follow above design guide to avoid the linear defect happened on the touch panel.

7. Absolute Maximum Ratings:

GND=0V, Ta=25°C

Parameters	Symbol	MIN.	MAX.	Unit	Remark
Supply Voltage	V _{DD}	-0.3	+4.0	V	
Input Signals Voltage	V _{IN}	-0.3	V _{DD} +0.3	V	
Storage Temperature	T _{st}	-30	+80	°C	
Operation Temperature	Top	-20	+70	°C	

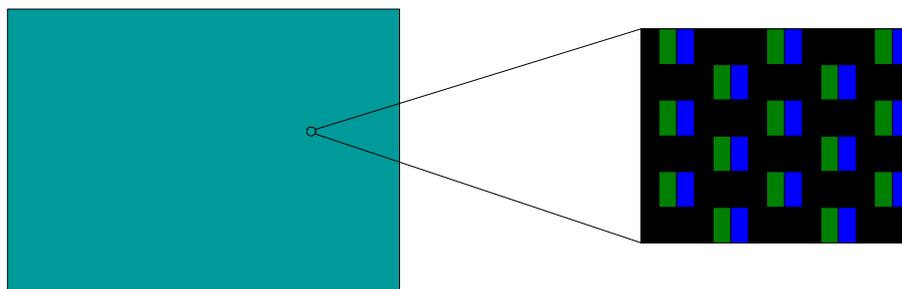
8. Electrical Characteristics

8-1) Recommended Operating Conditions:

GND = 0V , Ta = 25°C

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Supply Voltage	V _{DD}	3.0	3.3	3.6	V	
Current Dissipation	I _{DD}	-	92	138	mA	Note8-1 V _{DD} =3.3V
Digital input voltage	High Level	V _{IN}	2	-	V _{DD}	mV
	Low Level	V _{IL}	V _{ss}	-	0.8	

Note 8-1 : Test Pattern for dissipative current.



8-2) Recommended Driving Condition for Back Light

Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
Lamp Voltage	V _L	342	380	418	V	I _L =5mA
Lamp Current	I _L	3	5	7	mA	Note 8-2
Lamp Frequency	P _L	35	55	80	KHz	Note 8-3
Starting Voltage (25°C) (Reference Value)	V _s	-	-	589	Vrms	Note 8-4
Starting Voltage (0°C) (Reference Value)	V _s	-	-	820	Vrms	Note 8-4
Starting Voltage (-20°C) (Reference Value)	V _s	-	-	1139	Vrms	Note 8-4

Note 8-2 In order to satisfy the quality of B/L, no matter use what kind of inverter, the output lamp current must between Min. and Max. to avoid the abnormal display image caused by B/L.

Note 8-3: The waveform of lamp driving voltage should be as closed to a perfect sine wave as possible.

Note 8-4 The " Max of starting voltage " means the minimum voltage of inverter to turn on the CCFL. and it should be applied to the lamp for more than 1 second to start up. Otherwise the lamp may not be turned on.

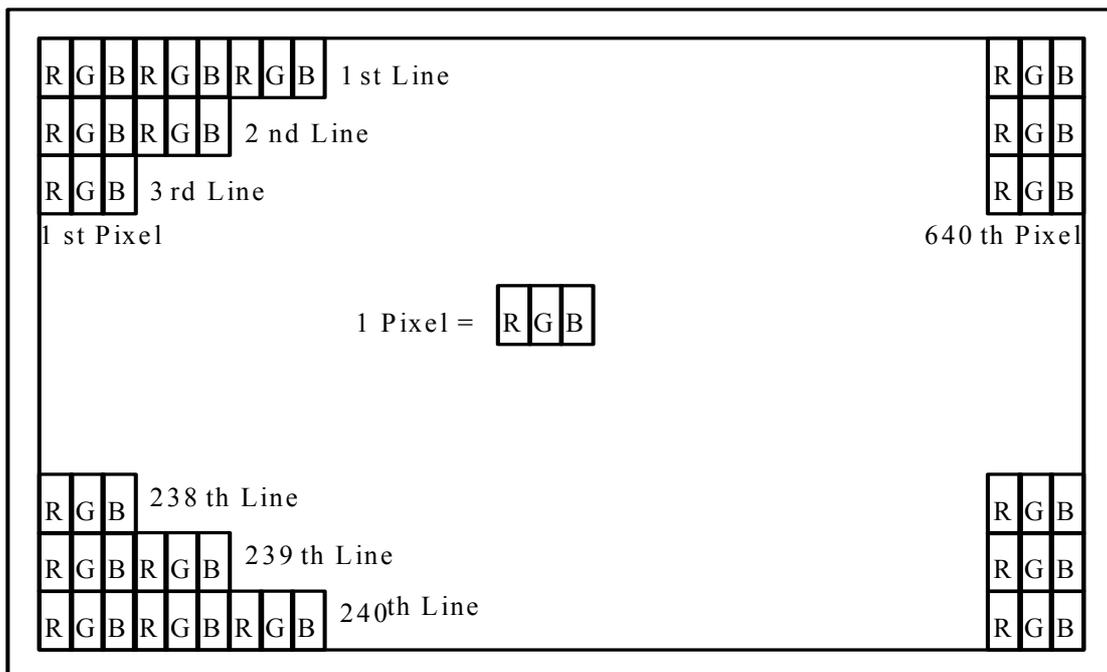
8-3) Backlight driving & Power Consumption

Parameter	Symbol	Typ.	Max.	Unit	Remark
LCD Power consumption (W/O BL)	-	0.3	0.46	W	$V_{DD}=3.3V$
Backlight Lamp Power Consumption	-	1.9	2.09	W	$I_L=5mA$ Note 8-5
Total Power Consumption	-	2.2	2.55	W	

Note 8-5: Backlight lamp power consumption is calculated by $I_L \times V_L$

9. Pixel Arrangement

The LCD module pixel arrangement is the stripe.

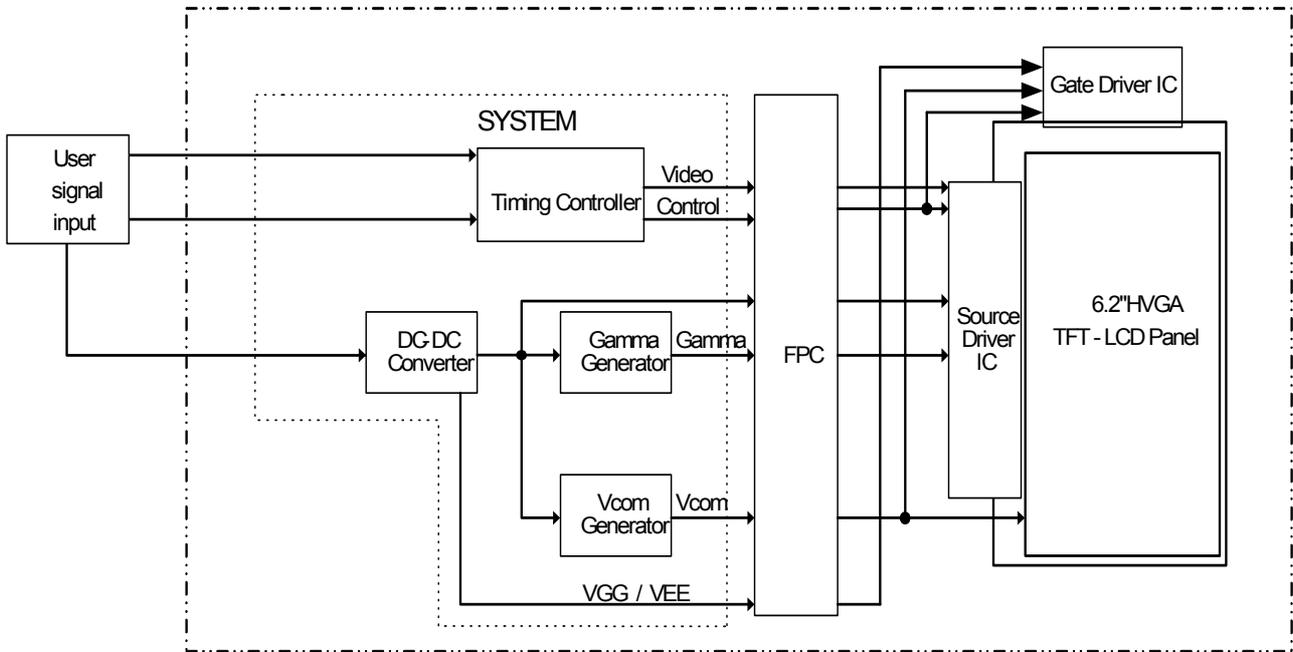


10. Display Color and Gray Scale Reference

Color		Input Color Data																	
		Red					Green					Blue							
		R5	R4	R3	R2	R1	R0	G5	G4	G3	G2	G1	G0	B5	B4	B3	B2	B1	B0
Basic Colors	Black	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (63)	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	Green (63)	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	Blue (63)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	Cyan	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	Magenta	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1
	Yellow	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	White	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Red	Red (00)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (01)	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Red (02)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Darker																		
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Brighter																		
	Red (61)	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Red (62)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Red (63)	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
Green	Green (00)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green (01)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Green (02)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	Darker																		
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Brighter																		
	Green (61)	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0
	Green (62)	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
Green (63)	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	
Blue	Blue (00)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Blue (01)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Blue (02)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Darker																		
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Brighter																		
	Blue (61)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1
	Blue (62)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
Blue (63)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	

11. Block Diagram

11-1) TFT-module Block Diagram



12. Interface Timing

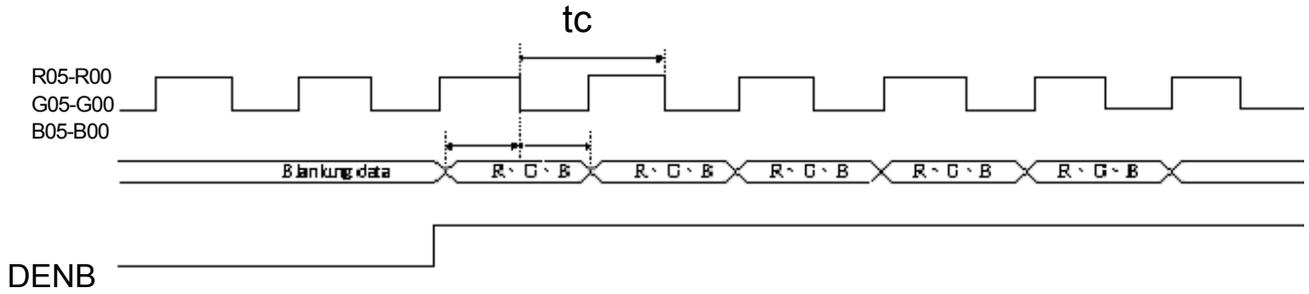
12.1) Timing Parameters

(HVGA mode)		Symbol	Min.	Typ.	Max.	Unit	Remark
Power supply		VDD	3.0	3.3	3.6	V	
DCLK	Frequency	1/tc	26.6	10.7	8.7	MHz	HVGA mode
		tc	37.5	94	114.9	ns	
DENB	Horizontal scanning period	T1	679	709	739	tc	
	Horizontal display period	T2		640		tc	
	Vertical display period	T3		240		T1	
	Frame cycling period	T4	245	251	533	T1	

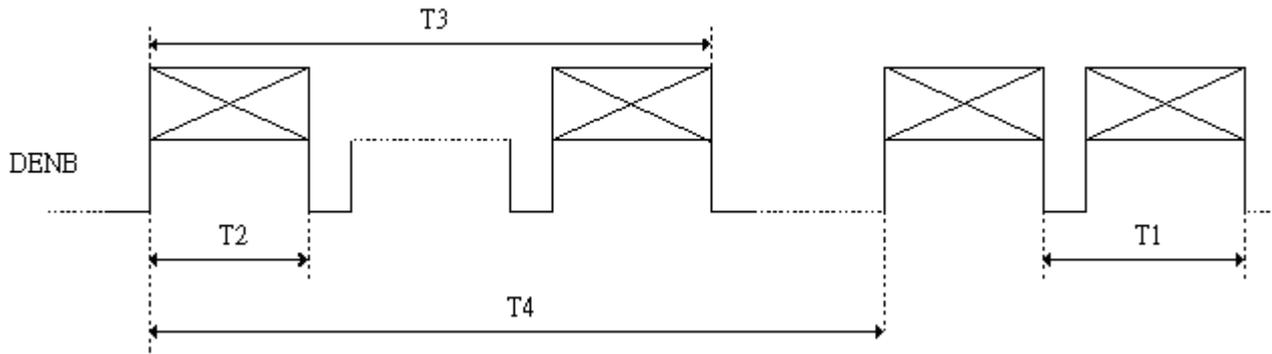
(VGA mode)		Symbol	Min.	Typ.	Max.	Unit	Remark	
Power supply		VDD	3.0	3.3	3.6	V		
DCLK	Frequency							
		1/tc	26.7	20.9	17.2	MHz	VGA mode	
		tc	37.4	47.8	58.1	ns		
DENB	Horizontal scanning period	T1	679	709	739	tc		
	Horizontal display period	T2		640		tc		
	Vertical display period	T3		480		T1		
	Frame cycling period	T4	485	491	533	T1		

12.2) The Timing Diagram

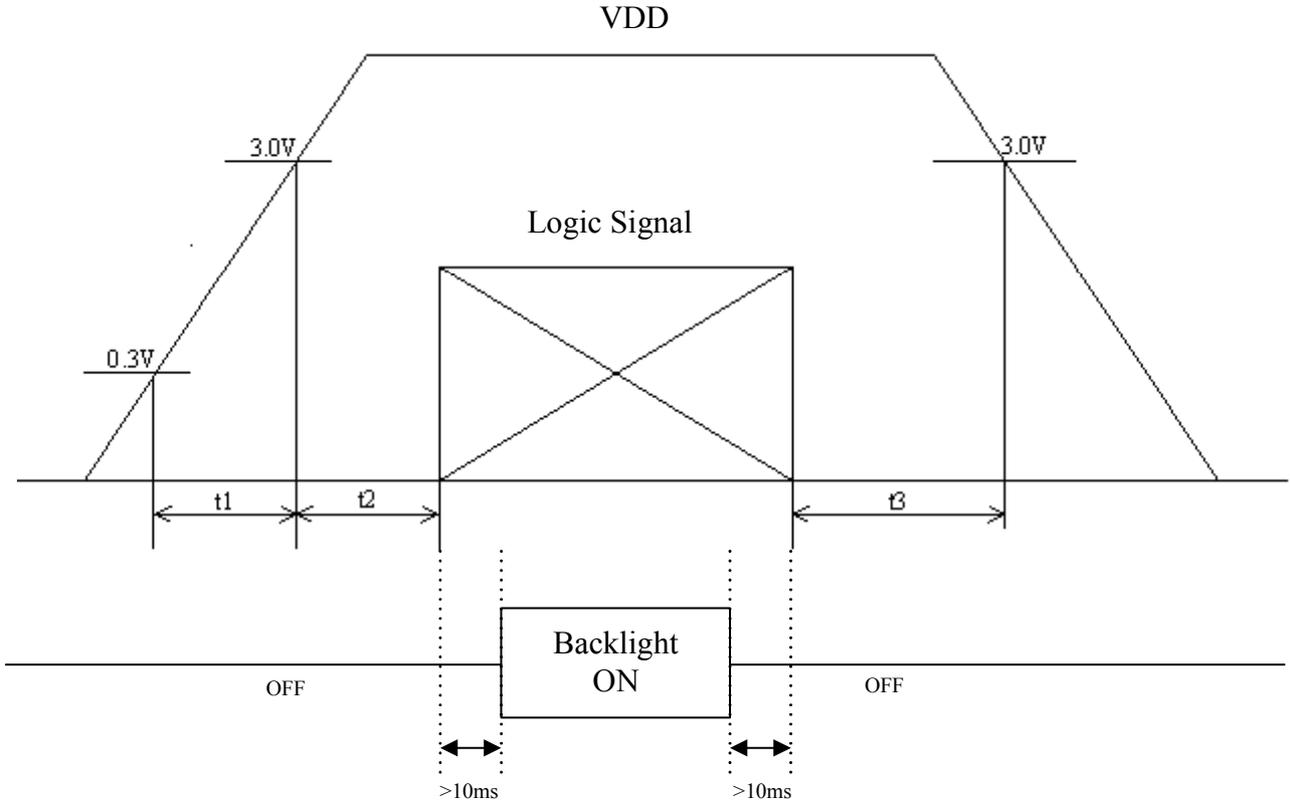
A. The timing chart for DENB mode
 a-1 CLK data ,relationship



a-2 DENB Timing



13. Power On Sequence



- $0 < t_1 \leq 20ms$
- 1. $0 < t_2 \leq 50ms$
- 2. $0 < t_3 \leq 1s$

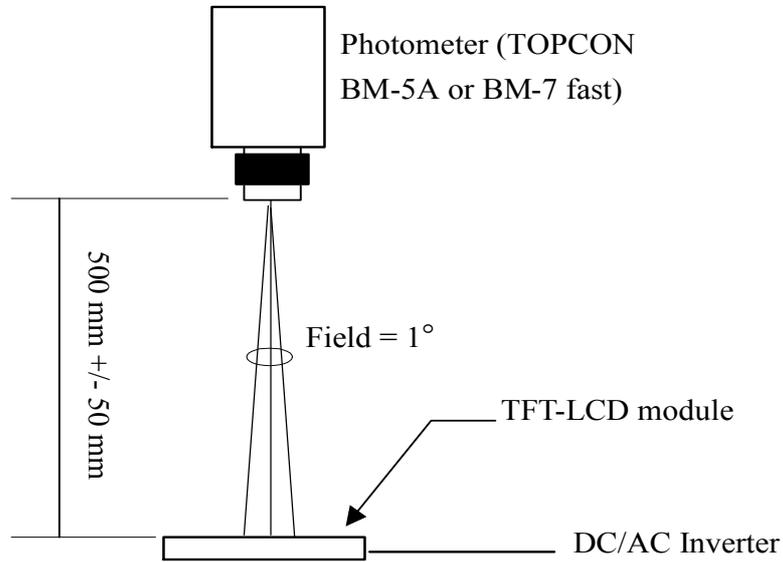
14. Optical Characteristics

14-1) Specification:

$T_a=25^\circ C$

Parameter		Symbol	Condition	MIN.	TYP.	MAX.	Unit	Remarks
Viewing Angle	Horizontal	$\theta_{21.22}$	$CR \geq 10$	70	75	-	deg	Note 14-1
	Vertical	θ_{12} (to 12 'clock)		45	50	-	deg	
		θ_{11} (to 6 o'clock)		55	60	-	deg	
Brightness		L	$\theta = 0^\circ$	200	280	-	cd/m ²	
Contrast Ratio		CR	At optimized Viewing angle	400	600	-	-	Note 14-2
Response time	Rise	Tr	$\theta = 0^\circ$	-	15	30	ms	Note 14-3
	Fall	Tf		-	25	50	ms	
Luminance Uniformity		U	-	70	75	-	%	Note 14-4
White Chromaticity		x	$\theta = 0^\circ$	0.27	0.30	0.33	-	
		y		0.31	0.34	0.37	-	
Cross Talk		-	$\theta = 0^\circ$	-	-	3.5	%	Note 14-5
Lamp Life Time		-	-	50000	-	-	hr	At 5 mA

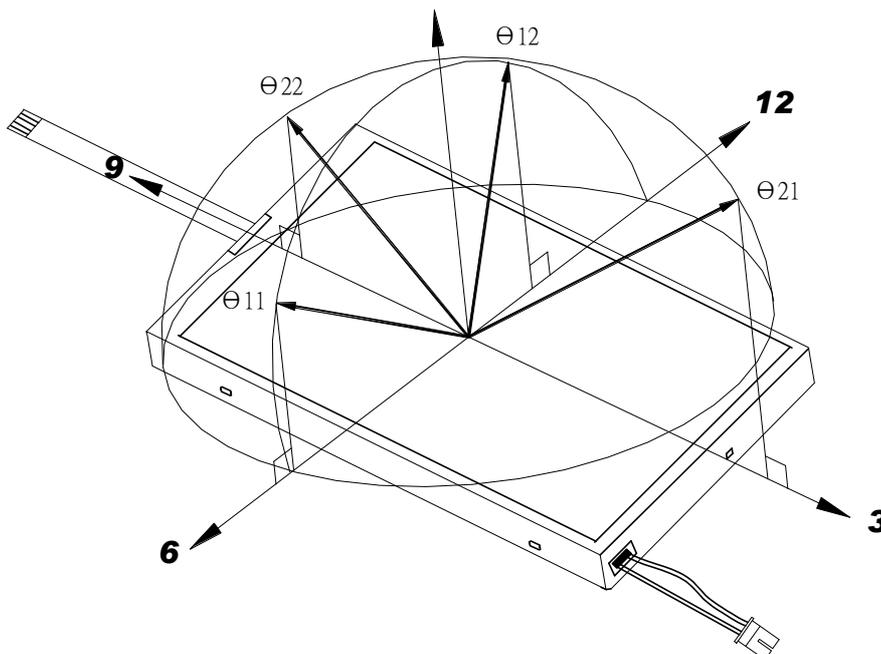
All the optical measurement shall be executed 30 minutes after backlight being turn-on. The optical characteristics shall be measured in dark room (ambient illumination on panel surface less than 1 Lux). The measuring configuration shows as following figure.



Optical characteristics measuring configuration

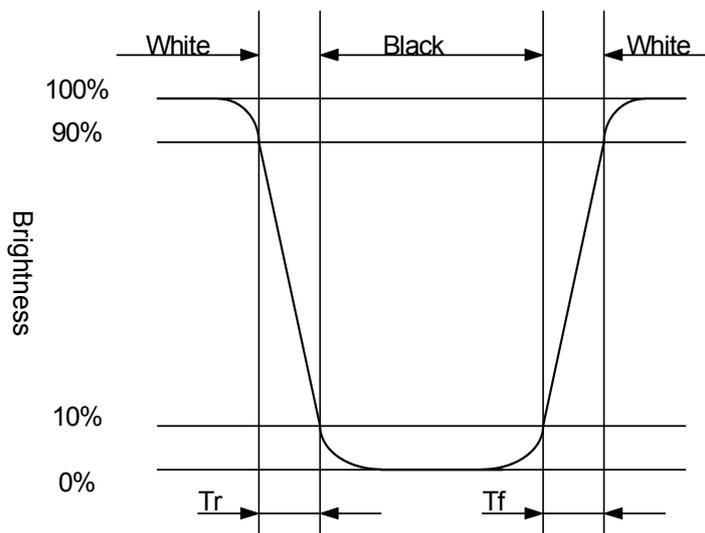
Topcon BM-5A or BM-7 fast luminance meter 1° field of view is used in the testing (after 30 minutes' operation). The typical luminance value is measured at lamp current 5 mA.

Note 14-1: The definitions of viewing angles are as follow.



Note 14-2: The definition of contrast ratio $CR = \frac{\text{Luminance when Testing point is White}}{\text{Luminance when Testing point is Black}}$

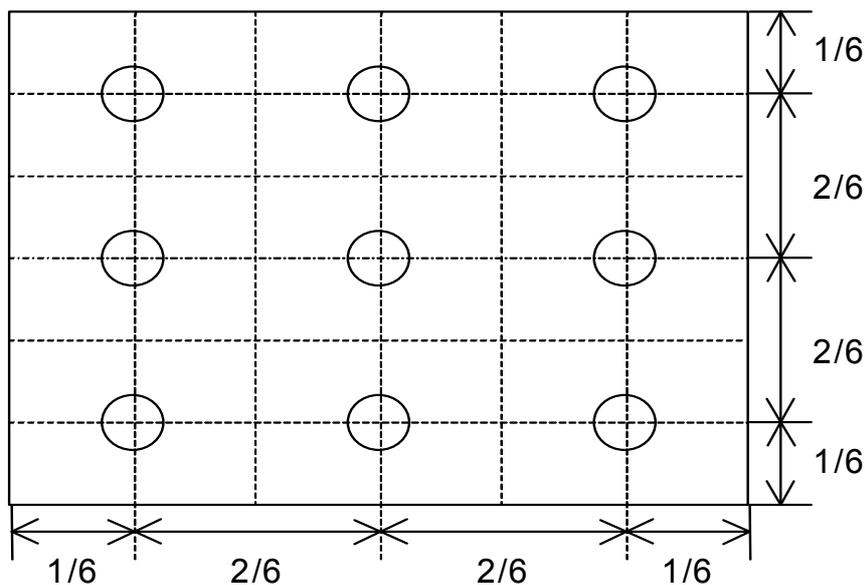
Note 14-3: Definition of Response Time T_r and T_f :



Note 14-4: The uniformity of LCD is defined as

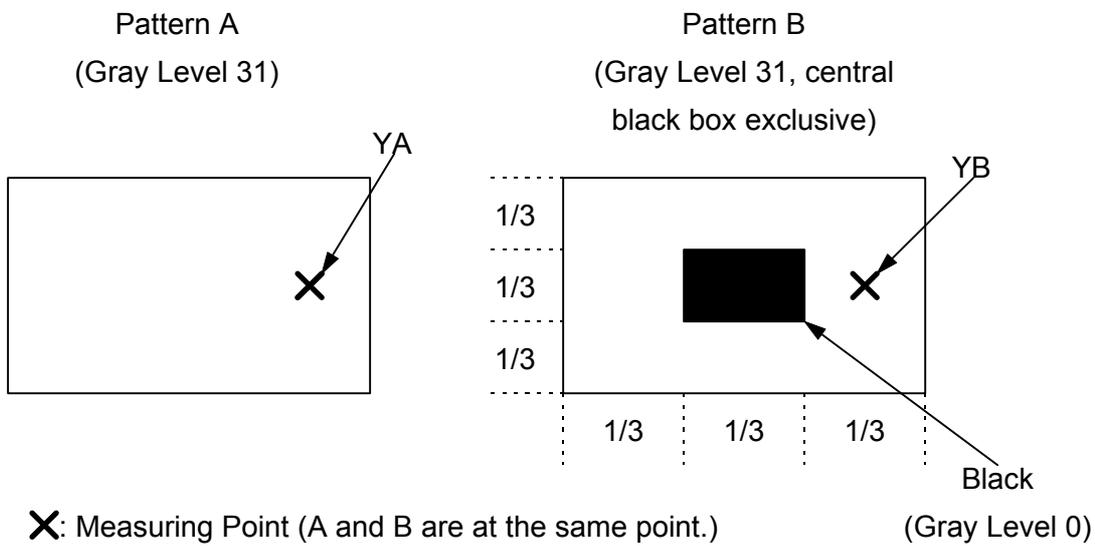
$$U = \frac{\text{The Minimum Brightness of the 9 testing Points}}{\text{The Maximum Brightness of the 9 testing Points}}$$

- Luminance meter : BM-5A or BM-7 fast(TOPCON)
- Measurement distance : 500 mm +/- 50 mm
- Ambient illumination : < 1 Lux
- Measuring direction : Perpendicular to the surface of module
- The test pattern is white.



Note 14-5: Cross Talk (CTK) = $\frac{|Y_A - Y_B|}{Y_A} \times 100\%$

YA: Brightness of Pattern A
 YB: Brightness of Pattern B
 Luminance meter : BM 5A or BM-7 fast (TOPCON)
 Measurement distance : 500 mm +/- 50 mm
 Ambient illumination : < 1 Lux
 Measuring direction : Perpendicular to the surface of module



15. Handling Cautions

15-1) Mounting of module

- a) Please power off the module when you connect the input/output connector.
- b) Please connect the ground pattern of the inverter circuit surely. If the connection is not perfect, some following problems may happen possibly.
 - 1.The noise from the backlight unit will increase.
 - 2.The output from inverter circuit will be unstable.
 - 3.In some cases a part of module will heat.
- c) Polarizer which is made of soft material and susceptible to flaw must be handled carefully.
- d) Protective film (Laminator) is applied on surface to protect it against scratches and dirt.
- e) Please following the tear off direction as figure15-1 to remove the protective film as slowly as possible, so that electrostatic charge can be minimized.

15-2) Precautions in mounting

- a) When metal part of the TFT-LCD module (shielding lid and rear case) is soiled, wipe it with soft dry cloth.
- b) Wipe off water drops or finger grease immediately. Long contact with water may cause discoloration or spots.
- c) TFT-LCD module uses glass which breaks or cracks easily if dropped or bumped on hard surface. Please handle with care.
- d) Since CMOS LSI is used in the module. So take care of static electricity and earth yourself when handling.

15-3) Adjusting module

- a) Adjusting volumes on the rear face of the module have been set optimally before shipment.
- b) Therefore, do not change any adjusted values. If adjusted values are changed, the specifications described may not be satisfied.

15-4) Polarizer mark

The polarizer mark is to describe the direction of wide view angle film how to mach up with the rubbing direction.

15-5) Others

- a) Do not expose the module to direct sunlight or intensive ultraviolet rays for many hours.
- b) Store the module at a room temperature place.
- c) The voltage of beginning electric discharge may over the normal voltage because of leakage current from approach conductor by to draw lump read lead line around.
- d) If LCD panel breaks, it is possibly that the liquid crystal escapes from the panel. Avoid putting it into eyes or mouth. When liquid crystal sticks on hands, clothes or feet. Wash it out immediately with soap.
- e) Observe all other precautionary requirements in handling general electronic components.
- f) Please adjust the voltage of common electrode as material of attachment by 1 module.

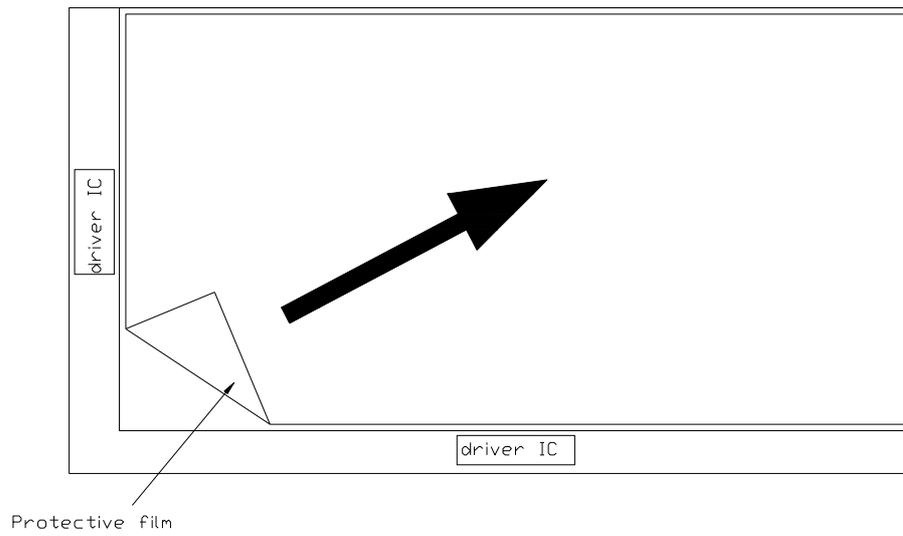


Figure 15-1 the way to peel off protective film

16. Reliability Test

No	Test Item	Test Condition	Remark
1	High Temperature Storage Test	Ta = +80°C, 240 hrs	
2	Low Temperature Storage Test	Ta = -30°C, 240 hrs	
3	High Temperature Operation Test	Ta = +70°C, 240 hrs	
4	Low Temperature Operation Test	Ta = -20°C, 240 hrs	
5	High Temperature & High Humidity Operation Test	Ta = +60°C, 90%RH, 240 hrs (No Condensation)	
6	Thermal Cycling Test (non-operating)	-30°C → +80°C, 100 Cycles 30min 30min	
7	Vibration Test (non-operating)	Frequency : 10 ~ 55 Hz, Amplitude : 1 mm Sweep time: 11 min Test Period: 6 Cycles for each direction of X, Y, Z	
8	Shock Test (non-operating)	100G, 6ms Direction: ±X, ±Y, ±Z Cycle: 3 times	
9	Electrostatic Discharge Test	C=150pF,R=330Ω Contact=±8KV,Air=±15KV 10times/point , 9 points/panel face	
10	Hitting Durability Test (Touch panel)	10,000,000 times, with R 8.0 mm silicon rubber, 150g, 3times/sec	
11	Sliding Durability Test (Touch panel)	100,000 times, with R 0.8 mm polyacetal stylus, 150g, 50mm/sec	

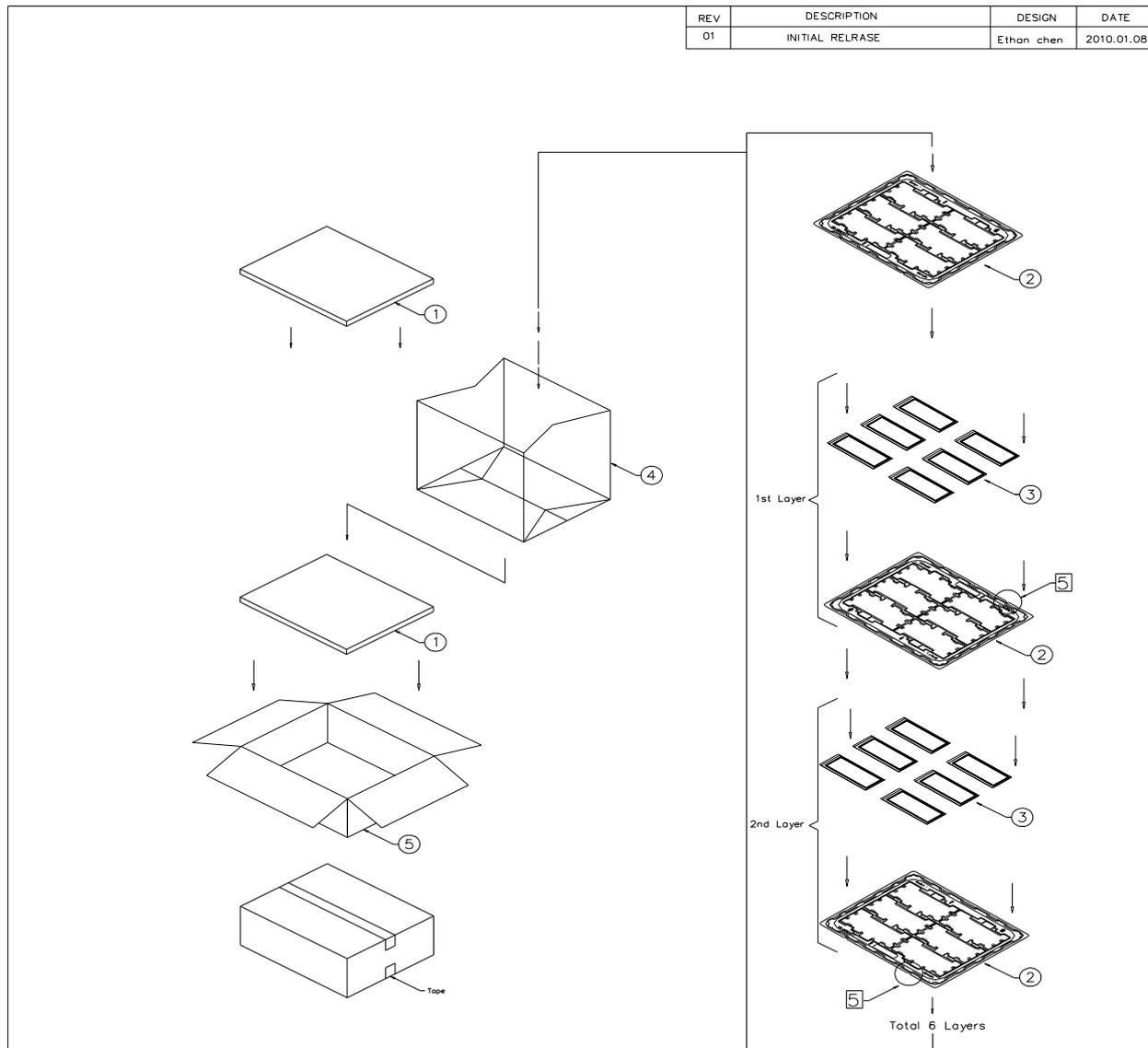
Ta: ambient temperature

Note: The protective film must be removed before temperature test.

[Criteria]

In the standard conditions, there is not display function NG issue occurred. (including : line defect ,no image), All the cosmetic specification is judged before the reliability stress.

16. Packing Diagram



NOTE:

- 1. One layer include: 1 piece of cushion sheet, 6 pcs panel & 1 piece of tray.
- 2. Q'TY: 36 pcs panel/carton.
- 3. Dimension: 455*375*190mm
- 4. Weight: 7.5 KG
- 5. tray需180°交叉堆疊, 堆疊後可從側邊視圓弧防呆方向是否正確

5	50-0100093	CARTON INTERNAL	1	
4	50-0510041	真空袋4.30*3.50*0.1mm	1	抗靜電
3		PM062HT1	36	
2	50-0302511	TRAY	7	抗靜電
1	50-0300491	EPE FOAM	2	
ITEM	PART NO.	DESCRIPTION	QTY	REMARK

MTL.SPEC.		UNSPECIFIED TOL'S		REMARK		元太科技股份有限公司 Prime View Internation Co.,ltd.	
		ANGLE					
		ROUGHNESS				DWG.TITLE	
APPROVE	Patrick Lin	'10.01.08	SCALE	UNIT	SHEET	PM062HT1 PACKING Dim	
CHECK	Patrick Lin	'10.01.08	1:1	mm	1 OF 1		
DESIGN	Ethan Chen	'10.01.08	MTL.NO.		DWG.NO.		REV. 01
							A4 SIZE