Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

CHI MEI OPTOELECTRONICS CORP.

Issue Date: Aug.15.2000
Model: N141X3
Preliminary

TFT-LCD Perliminary Specification

Model No: N141X3

www.panelook.com

Liquid Crystal Division		
QRA Dept.	RD Dept.	System Dept.
Approval	Approval	Approval

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

CHI MEI OPTOELECTRONICS CORP.

Issue Date: Aug.15.2000
Model: N141X3
Preliminary

CONTENTS

www.panelook.com

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

REVISION HISTORY

VERSION	Date	DESCPIPTION
Ver 0.1	Jun.29,'00	Issue Tentative specification.
Ver 1.0	Aug.15,'00	Issue Preliminary specification. Page 4/18 - Update FEATURES. - Change Module Size Depth: old: 5.8mm(Typ.) / 6.1mm(Max.) new: 5.7mm(Typ.) / 6.0mm(Max.) Weight: old: 600mm(Typ.) / -(Max.) new: 510mm(Typ.) / 530mm(Max.) Page 5/18 - Change Humidity Old: ≤95% relative humidity/40°C≤Ta≤50°C New: ≤85% relative humidity/40°C≤Ta≤50°C Page 6/18 - Change ELECTRICAL SPECIFICATIONS. "H" level LVDS signal input: old: -100(Min.)/ -(Typ.)/ -(Max.) new: -(Min.)/ -(Typ.)/+100(Max.) "L" level LVDS signal input: old: -(Min.)/ -(Typ.)/ 100(Max.) new: -100(Min.)/ -(Typ.)/ -(Max.) Power Supply Current: old:-(Max.) → new: TBD(Max.) Rush Current: old: 1.6(Typ.)/ 1.8(Max.) new: (1.6)(Typ.)/ (1.8)(Max.) Page 6/18~8/18 - Add Note(1)~Note(8) Page 9/18 - Add 3. BLOCK DIAGRAM Page 11/18 - Add 4.2 INPUT SIGNAL TIMING SPECIFICATIONS Page 12/18 - Change INPUT SIGNAL TIMING DIAGRAM. Page 14/18 - Revise Timing Specifications on 4.4 POWER UP/DOWN SEQUENCE. Old:t4≥1S → new:t4≥0.7S Page 15/18 - Change 5. OPTICAL SPECIFICATIONS. Average Luminance: old: -(Typ.)/(150)(Max.)→new:(150)(Typ.)/- (Max.) Falling of Response Time: old: (25)(Typ.) → new: (35)(Typ.) Chromaticity: Xw: old: (0.307)(Typ.)/-(Max.) → new: -(Typ.)/(0.31)(Max.) Yw: old: (0.337)(Typ.)/-(Max.) → new: -(Typ.)/(0.33)(Max.) Page 17/18 - Add 7. PRECAUTION

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

GENERAL DESCRIPTION

OVERVIEW

This product is a 14.1" TFT Liquid Crystal Display Module with a Backlight unit and 20 pins LVDS (Low Voltage Differential Signal) interface. This module supports 1024 x 768 XGA mode and can display 262,144 colors. The inverter module for Backlight is not built in.

FEATURES

-XGA (1024x768 pixels) resolution

-1 CCFLs (Cold Cathode Fluorescent Lamp)

-DE only Mode / Standard Mode

-LVDS (Low Voltage Differential Signaling) Interface

APPLICATION

-Note Book PC

GENERAL SPECIFICATI0NS

Item	Specifications	Unit
Screen Size	14.1 Diagonal	inch
Bezel opening area	288.8(W)x217.4(H)	mm
Effective display area	285.7(W)x214.3(H)	mm
Pixel number	1024 x R.G.Bx768	pixel
Pixel pitch	0.279(H)x0.279(V)	mm
Pixel Arrangement	R.G.B Vertical Stripe	-
Display Color	6 bits, 262,144	color
Transmissive mode	Normally white	-
Surface treatments	Hard coating(3H) and anti-glare (Haze 12)	-

MECHANICAL SPECIFICATIONS

ITEM		MIN.	TYP.	MAX.	Unit
Module size	Horizontal	298	298.5	299	mm
	Vertical	227	227.5	228	mm
	Depth	-	5.7	6.0	mm
Weight		-	510	530	g

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

1. ABSOLUTE MAXIMUM RATINGS

1.1 ABSOLUTE RATINGS OF ENVIRONMENT

Item	Symbol	Values		Unit	Note
		Min.	Max.		
Storage temperature	Tst	-20	+60	ºC	(1)
Operating temperature (Ambient Temperature)	Top	0	+50	ºC	(1)
Shock(non-operating)	Snop	-	30	G	(2),(4)
Vibration(non-operating)	Vnop	-	1.5	G	(3),(4)

Note (1) Temperature and relative humidity range is shown in the figure below.

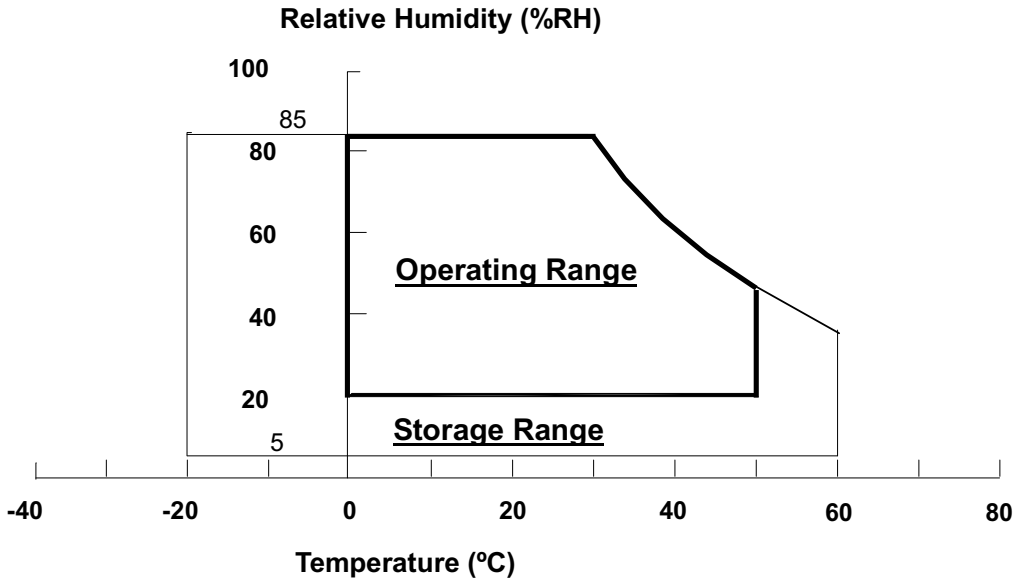
85% RH Max. (40ºC ≥ Ta)

Maximum wet-bulb temperature at 39ºC or less. (Ta > 40ºC) No condensation.

Note (2) 6ms, sine wave, one time for ± X, ± Y, ± Z.

Note (3) 10-500 Hz, Sweep rate 20min, 60min for X, Y, Z.

Note (4) At testing Vibration and Shock, the fixture in holding the Module to be tested has to be hard and rigid enough so that the Module would not be twisted or bent by the fixture.



This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

2. ELECTRICAL SPECIFICATIONS

2.1 TFT LCD MODULE

MODULE						
Parameter	Symbol	Value			Unit	Notes
		Min.	Typ.	Max.		
Power Supply Voltage	V_{CC}	3.0	3.3	3.6	V	(1)
"H" level LVDS signal input	V_{IH}	-	-	+100	mV	
"L" level LVDS signal input	V_{IL}	-100	-	-	mV	
Power Supply Current	I_{CC}	-	400	TBD	mA	
Rush Current	IRUSH	-	(1.6)	(1.8)	A	(8)
Ripple voltage	V_{RP}	-	50	-	mV	(1)
Terminating resistor	Rt	-	100	-	Ohm	

2.2 BACKLIGHT UNIT

BACKLIGHT (1 Lamp)						Ta=25±2℃
Parameter	Symbol	Value			Unit	Notes
		Min.	Typ.	Max.		
Lamp Voltage	V_L	-	630	-	V_{RMS}	I_L=6.0mA
Lamp Current	I_L	4.0	6.0	7.0	mA	(2)
Startup Voltage	V_S	-	-	975	V_{RMS}	(25°C)
		-	-	1170	V_{RMS}	(0 °C)
Operating Frequency	F_L	40	55	70	KHz	(4)
Power Consumption	P_L	-	4.2	-	W	(5), I_L=6.0mA
Lamp Life time	L_{BL}	12000	20000	-	Hrs	(6)

The connector information of Back light unit.

Pin	Symbol	Description	Remark
1	HV	Lamp power input	White
2	LV	Ground	Black

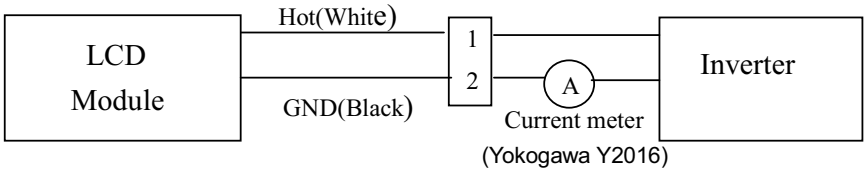
Connector Part No.: BHSR-02VS-1(JST)

User's connector Part No.: SM02B-BHSS-1-TB (JST)

Note(1) The operating temperature range is 0 ~ 50 ºC, and the typical value of Power Supply

Current is measured in black pattern.

Note(2) Lamp current is measured by utilizing a current meter for high frequency as shown below:



Note(3) The voltage shown above should be applied to the lamp for more than 1 second after startup. Otherwise the lamp may not be turned on.

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

Note(4) The lamp frequency may produce interference with horizontal synchronous frequency from the display, and this may cause line flow on the display. In order to avoid interference the lamp frequency should be detached from the horizontal synchronous frequency and its harmonics as far as possible.

.

Note(5) $P_L = I_L \times V_L$.

Note(6) The lifetime (Hr) of a lamp can be defined as the time in which it continues to operate under the condition Ta = 25±2℃ and I_L = 6.0 mArms until one of the following event occurs:

(1) When the brightness becomes 50% or lower than its original,

(2) When the effective ignition length becomes 80% or lower than its original value.

(Effective ignition length is defined as an area that has less than 70% brightness compared to the brightness in the center point.)

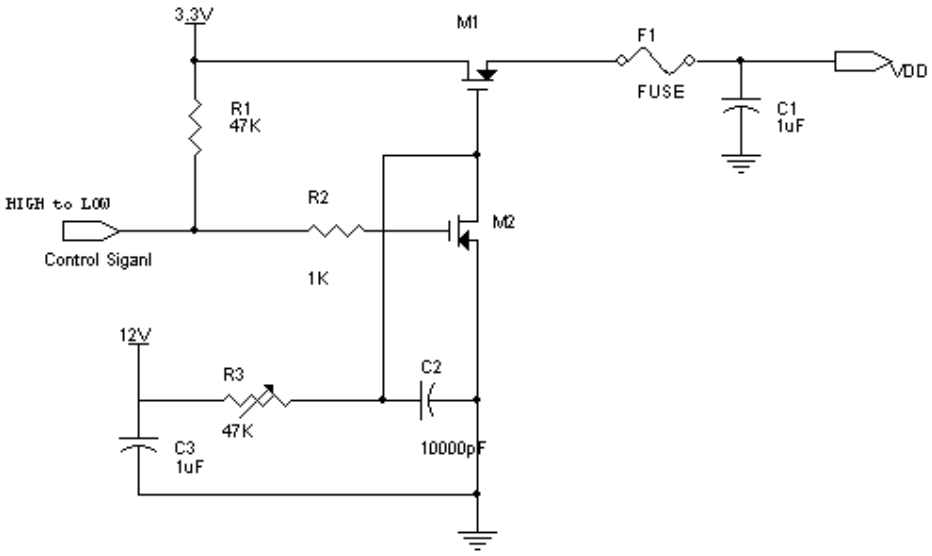
Note(7) The waveform of the voltage output of inverter must be area-symmetric and the design of the inverter must have specifications for the modularized lamp. The performance of the backlight, such as lifetime or brightness, is greatly influenced by the characteristics of the DC-AC inverter for the lamp. All the parameters of an inverter should be designed with care so as not to produce too much current leakage from high-voltage output of the inverter. When designing or ordering the inverter, please make sure that a poor lighting caused by the mismatch of the backlight and the inverter (miss-lighting, flicker, etc.) never occurs. When the above situation is confirmed, the module should be operated in the same manners as it is installed in your instrument.

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

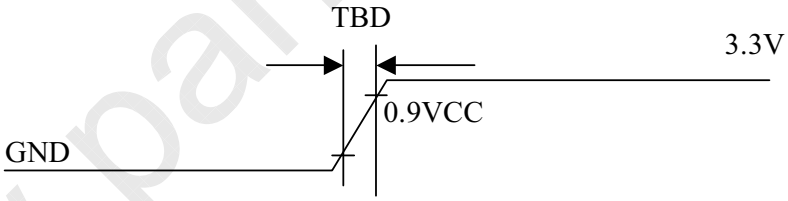
Note(8) Rush current measurement condition



M1:2SK1475

M2:2SK1470

The circuit above produces a power Vcc with TBD rising time.

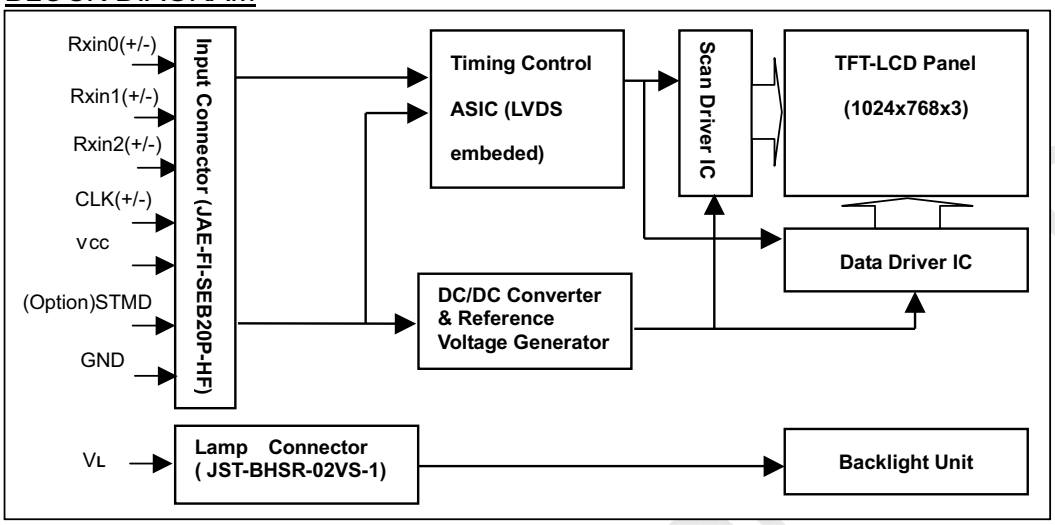


One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

3. BLOCK DIAGRAM

BLOCK DIAGRAM



www.panelook.com

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

4. INTERFACE SPECIFICATIONS

4.1 THE PIN ASSIGNMENT OF INTERFACE CONNECTOR.

Pin	Symbol	Description	Notes
1	V_{CC}	Power supply +3.3 v	
2	V_{CC}	Power supply +3.3 v	
3	Vss	Ground	
4	Vss	Ground	
5	Rxin0-	LVDS differential data input (Negative)	R0~R5,G0
6	Rxin0+	LVDS differential data input (Positive)	
7	Vss	Ground	
8	Rxin1-	LVDS differential data input (Negative)	G1~G5,B0,B1
9	Rxin1+	LVDS differential data input (Positive)	
10	Vss	Ground	
11	Rxin2-	LVDS differential data input (Negative)	B2~B5,DE,Hsync, Vsync
12	Rxin2+	LVDS differential data input (Positive)	
13	Vss	Ground	
14	CLK-	LVDS Clock Data input (Negative)	LVDS level
15	CLK+	LVDS Clock Data input (Postive)	
16	Vss	Ground	
17	NC	Non-connection	
18	STMD	Standard mode selection	See Section 4.2
19	Vss	Ground	
20	Vss	Ground	

Connector Part No.: FI-SEB20P-HF13R (JAE) or Equivalent

User's connector Part No: FI-S20S or FI-SE20M (JAE)

www.panelook.com

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

4.2 INPUT SIGNAL TIMING SPECIFICATIONS

The specifications of input signal timing are as the following table and timing diagram.

Signal	Parameter	Symbol	Min	Typ	Max	Unit	Remarks
DCLK	Pixel clock period	Tck	-	15	-	ns	

a.)DE Only Mode

If 'Pin 18' is left open or pulled high, DE mode is selected. When N141X3 is working under DE mode, the signals, VSYNC and HSYNC, are ignored. All timing of timing controller is driven from DE signal.

VSYNC	Vertical period	Tvp	777	806	834	Thp	
	Vertical display blank period	Tvdb	9	38	66	Thp	$T_{vdb}=T_{pw}+T_{bp}+T_{fp}$
	Vertical display active period	Tvda	768	768	768	Thp	
	Vertical sync. back porch	Vbp	0	29	65	Thp	
	Vertical sync. front porch	Vfp	0	3	65	Thp	
	Vertical sync. pulse width	Vpw	1	6	66	Thp	
HSYNC	Horizontal period	Thp	1342	1344	1356	Tck	Need to be even
	Horizontal display blank period	Thdb	318	320	332	Tck	$T_{hdb}=H_{pw}+H_{bp}+H_{fp}$
	Horizontal display active period	Thda	1024	1024	1024	Tck	
	Horizontal sync. back porch	Hbp	24	160	331	Tck	
	Horizontal sync. front porch	Hfb	0	24	307	Tck	
	Horizontal sync. pulse width	Hpw	1	136	308	Tck	

b.) Standard Mode

If 'Pin 18' is pulled down, Standard mode is selected. When Standard mode is used, VSYNC, HSYNC and DE should be provided.

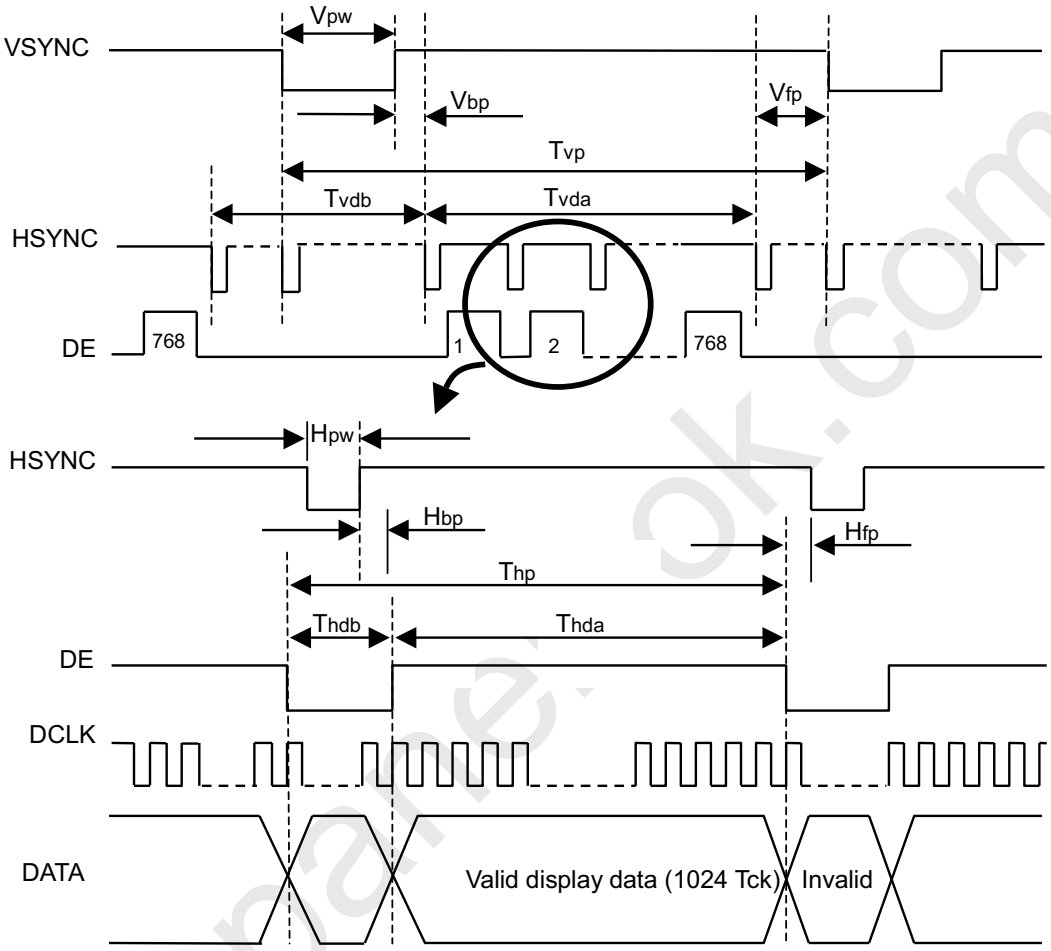
VSYNC	Vertical period	Tvp	769	806	1000	Thp	
	Vertical display blank period	Tvdb	1	38	232	Thp	$T_{vdb}=T_{pw}+T_{bp}+T_{fp}$
	Vertical display active period	Tvda	768	768	768	Thp	
	Vertical sync. back porch	Vbp	0	29	231	Thp	
	Vertical sync. front porch	Vfp	0	3	231	Thp	
	Vertical sync. pulse width	Vpw	1	6	232	Thp	
HSYNC	Horizontal period	Thp	1100	1344	1612	Tck	Need to be even
	Horizontal display blank period	Thdb	76	320	588	Tck	$T_{hdb}=H_{pw}+H_{bp}+H_{fp}$
	Horizontal display active period	Thda	1024	1024	1024	Tck	
	Horizontal sync. back porch	Hbp	10	160	564	Tck	
	Horizontal sync. front porch	Hfb	0	24	554	Tck	
	Horizontal sync. pulse width	Hpw	24	136	578	Tck	

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

INPUT SIGNAL TIMING DIAGRAM



This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

4.3 COLOR DATA INPUT ASSIGNMENT

Color		Data Signal																	
		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	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	Green	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	Blue	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
Gray Scale Of Red	Red(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red(1)	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Red(2)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	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
Gray Scale Of Green	Green(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green(1)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Green(2)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	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
Gray Scale Of Blue	Blue(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Blue(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Blue(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	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

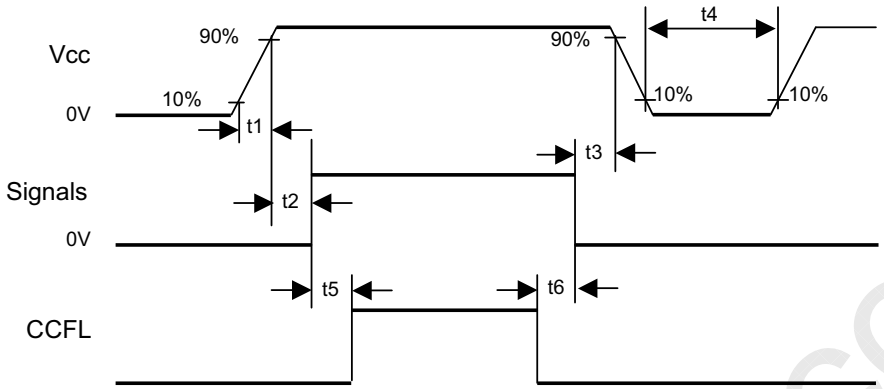
www.panelook.com

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

4.4 POWER UP/DOWN SEQUENCE



Timing Specifications:

0 ≦ t1 ≦ 10mS

0 ≦ t2 ≦ 50mS

0 ≦ t3 ≦ 50mS

t4 ≧ 0.7S

t5 ≧ 170mS

t6 ≧ 200mS (min.)

Notes: 1. Please avoid floating state of interface signal at invalid period.

2. When the interface signal is invalid, be sure to pull down the power supply for LCD Vcc to 0V.

www.panelook.com

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

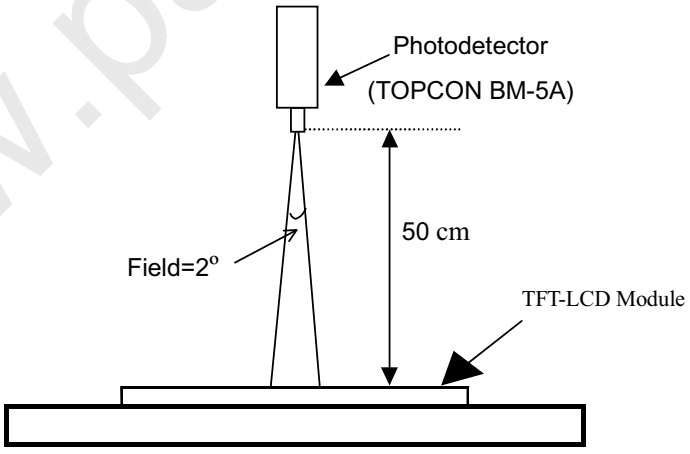
Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

5. OPTICAL SPECIFICATIONS

The following optical specifications shall be measured in a dark room or equivalent state (ambient luminance ≤1 lux, and at room temperature). The measurement must be taken after backlight warming up for 20 minutes. The operation temperature is 25°C ± 2°C. The measurement method is shown in Note 1.

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Luminance		Lave	I_L =5.0mA	-	(130)	-	cd/m^2	(1),(2)
			I_L =6.0mA	-	(150)	-	cd/m^2	(1),(2)
Brightness Uniformity		Buni	θx =θy = 0°	-	(1.4)	(1.6)		(1),(3)
Contrast Ratio		CR	Center	-	(150)	-	-	(1),(4)
Viewing Angle	Horizontal	θx+	Center CR ≥10	(40)	(45)	-	Degree	(4),(5)
		θx-		(40)	(45)	-		
	Vertical	θy+	Center CR ≥10	(10)	(15)	-		
		θy-		(30)	(35)	-		
Response Time	Rising	Tr	Center θx =θy = 0°	-	(15)	(30)	ms	(1),(6)
	Falling	Tf		-	(35)	(50)	ms	
Chromaticity		X_W	Center θx =θy = 0°		(0.31)			(1),(7)
		Y_W			(0.33)			
		X_R			(0.58)			
		Y_R			(0.35)			
		X_G			(0.32)			
		Y_G			(0.54)			
		X_B			(0.15)			
		Y_B			(0.14)			

Note(1) The method of optical measurement:



This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

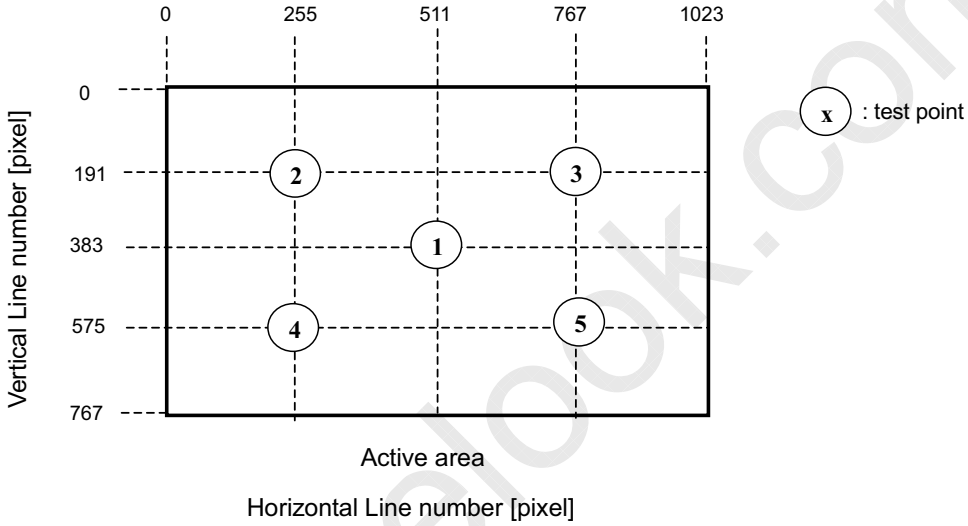
One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

Note(2) Definition of Luminance (Lave):

Luminance should be measured the luminance of gray level 63 (L 63)at the 5 points of the LCD module and at the viewing angle of the $\theta x = \theta y = 0^{o}$.

$$Lave = \frac{L(1) + L(2) + L(3) + L(4) + L(5)}{5}$$



Note(3) Definition of Brightness Uniformity (Buni):

$$Buni = \frac{\text{Maximum luminance of 5 points}}{\text{Minimum luminance of 5 points}} \quad \text{(Note 2).}$$

Note(4) Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression.

Contrast Ratio (CR) = L63 / L0

L63 : Luminance on the white raster (gray level 63)

L 0 : Luminance on the black raster (gray level 0)

CR = CR(1)

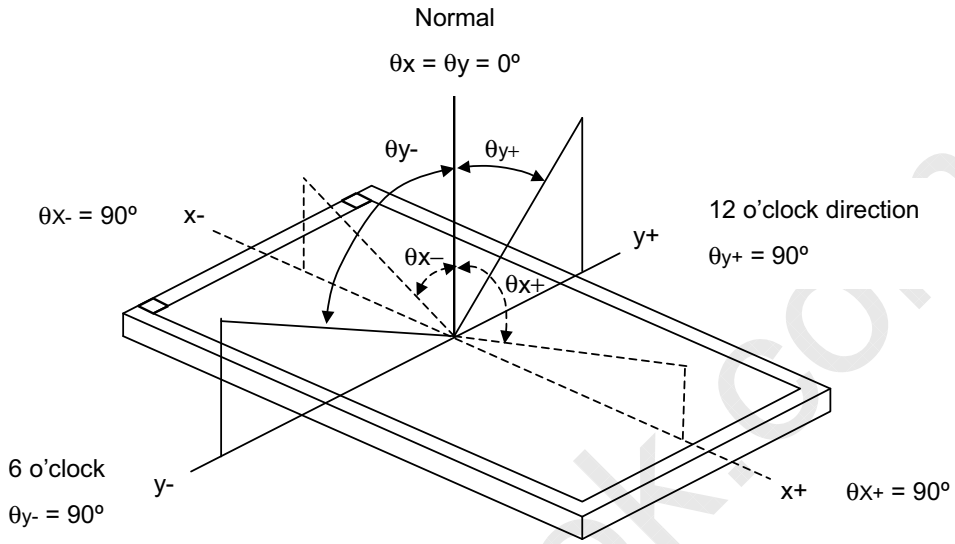
CR(x) is corresponding to the Contrast Ratio of a point x at Figure Note 2.

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

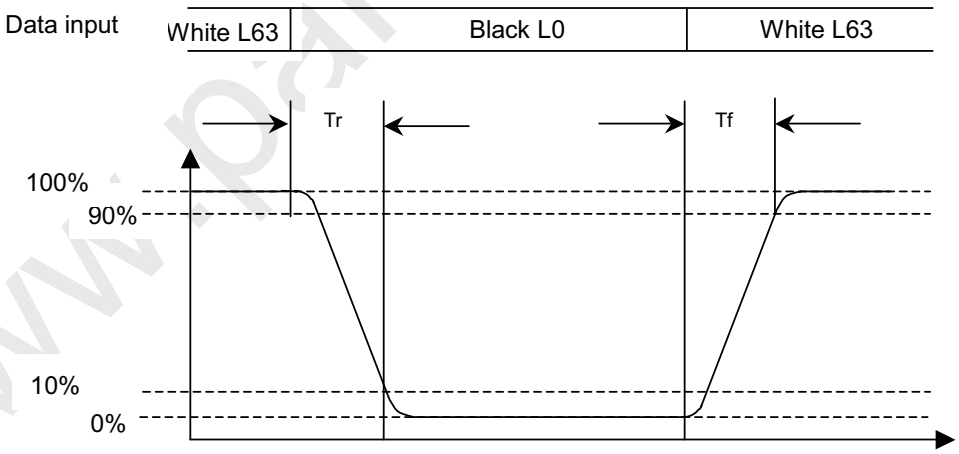
Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

Note(5) Definitions of Viewing Angle (CR ≥ 10):



Note(6) Definition of Response Time:

The Response Time is set initially by defining the " Rising Time (Tr)" and the " Falling Time (Tf)" respectively. Tr and Tf are defined as following figure.



Note(7) Definition of Chromaticity:

The color coordinates (Xw, Yw), (X_R,Y_R), (X_G,Y_G), and (X_B,Y_B) are obtained with all pixels in the viewing field at white, red, green, and blue states, respectively.

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

Global LCD Panel Exchange Center www.panelook.com 屏库:全球液晶屏交易中心

6. MECHNICAL DRAWING

Please refer to the attached drawings.

7. PRECAUTION

7. 1 ASSEMBLY AND HANDLING PRECAUTION

(1) Do not apply rough force such as bending or twisting to the module during assembly.

(2) To assembly and install module into user's system are only in clean working areas. The Dust and oil may cause an electrical short or worsen the polarizer.

(3) It's not permitted to pressure or impulse the module because the LCD panel and backlight,

(4) Always follow the correct power sequence when user connects and operates the LCD module to prevent damage to the CMOS LSI chips during latchup.

(5) Do not pull the I/F connectors in or out while the module is operation.

(6) Do not disassembly the module.

(7) Use a soft dry cloth without chemicals for cleaning, because the surface of polarizer is very
soft and easily scratched.

(8) Any moisture come into contact with the LCD module is dangerous because LCD modules is turned on with moisture on its surface may cause it damage.

(9) The high temperature or humidity may reduce the performance of module, to store LCD module within the specified storage condition.

(10)The ambient temperature is lower than 10ºC may reduce the display quality, for example, response time become slowly, the starting voltage of CCFL is higher than room temperature.

(11)The mounting screw method is recommended in Figure 6.1.

7.2 SAFTY PRECAUTION

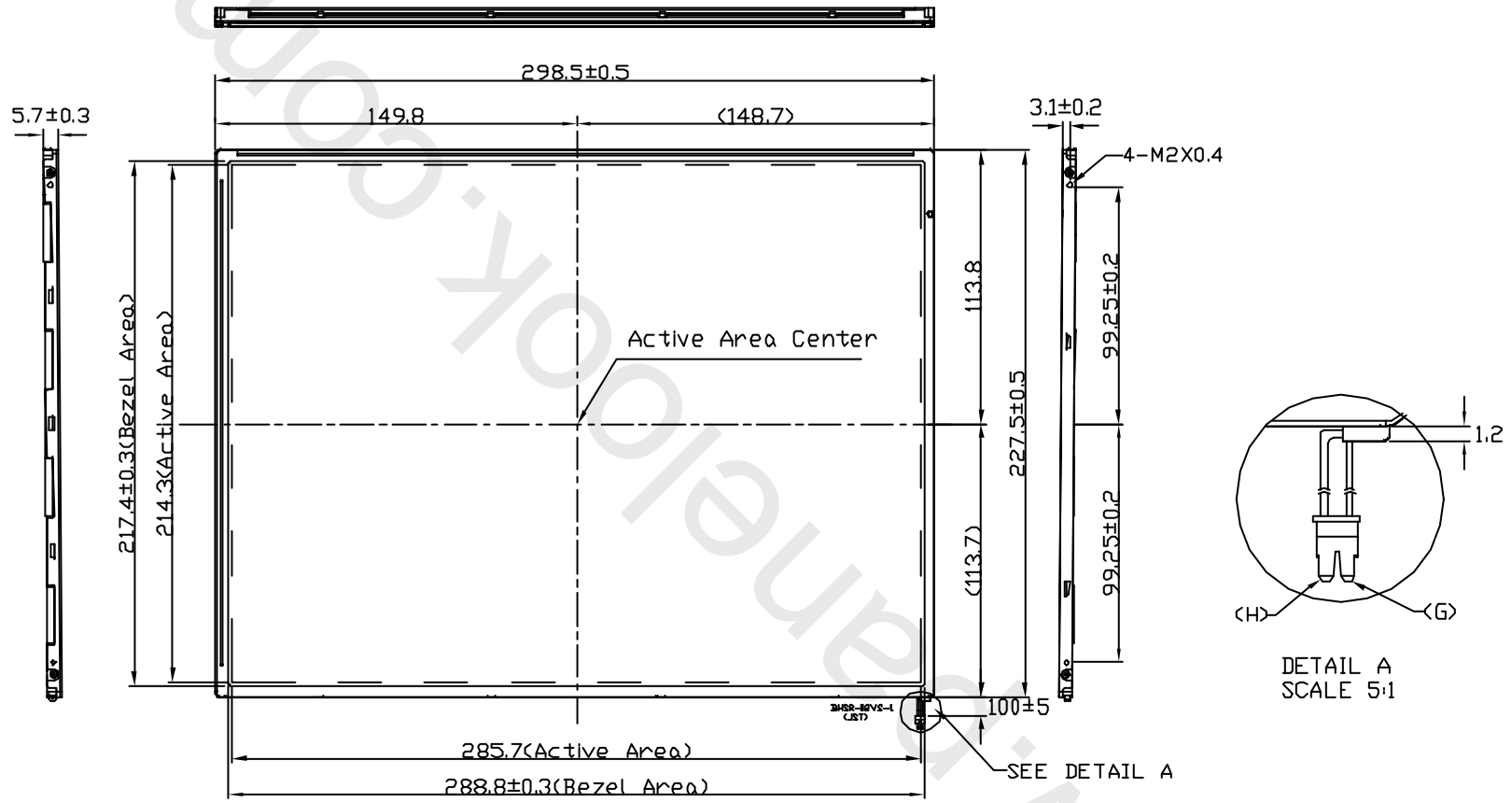
(1) The startup voltage of backlight is approximately 1000 Volts. It may cause electrical shock during assembly with inverter. Do not disassemble the module or insert anything into the backlight unit.

(2) If the liquid crystal material leaks from the panel, it should be kept away from the eyes or mouth. In case of contact with hands, skin or clothes, it has to be washed away thoroughly with soap.

This technical specification is preliminary and it will be changed without notice Please contact CMO's representative while your product design is base on this specification. Version 1.0

One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

屏库:全球液晶屏交易中心 www.panelook.com
Global LCD Panel Exchange Center
One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com

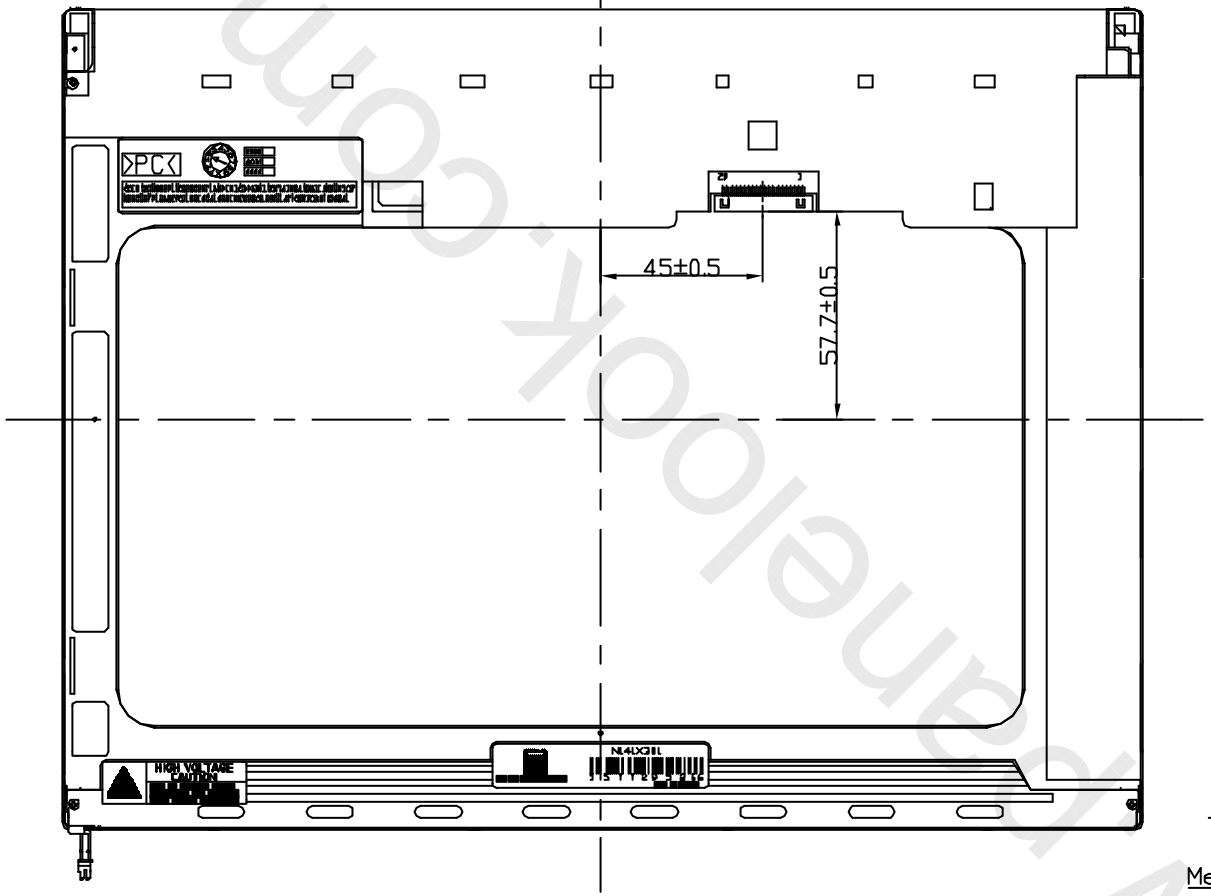


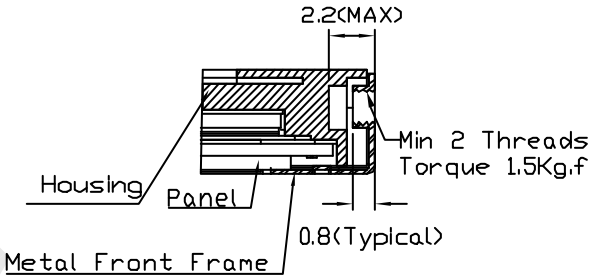
NOTE:
1.GENERAL TOLERANCE : ±0.3

CHI MEI OPTOELECTRONICS CORP.					
APPROVED: JACK FAN		DWG NO.: N14134105A			
CHECKED: BILL SHEU		DATE: 08/01/00			
DESIGNER: YULE LIN		PART NO.:			
DRAWER: YULE LIN		REV.: A	UNIT:	SCALE:	SHEET:
TITLE: OUTLINE N141X3			MM		1/2

"CHI MEI" COPYRIGHT 2000, ALL RIGHTS RESERVED, COPYING FORBIDDEN.

Global LCD Panel Exchange Center
屏库:全球液晶屏交易中心
www.panelook.com
One step solution for LCD / PDP / OLED panel application: Datasheet, inventory and accessory! www.panelook.com





Structure of joint

CHI MEI OPTOELECTRONICS CORP.					
APPROVED: JACK FAN		DWG NO.: N14134105A			
CHECKED: BILL SHEU		DATE: 08/01/00			
DESIGNER: YULE LIN		PART NO.:			
DRAWER: YULE LIN	REV.: A	UNIT:	SCALE:	SHEET:	
TITLE: OUTLINE N141X3		MM		2/2	

"CHI MEI" COPYRIGHT 2000, ALL RIGHTS RESERVED, COPYING FORBIDDEN.