



LITEMAX CM1555E

Sunlight readable 15" LED B/L LCD

(1st Edition 8/14/2007)

All information is subject to change without notice.

Approved by	Checked by	Prepared by
David	Sharline	Eric

LITEMAX Electronics Inc.
8F-2, No.133, Lane 235, Bau-chiau Rd.,
Shin-dian City, Taipei County, Taiwan R.O.C.
Tel : 886-2-8919-1858
Fax: 886-2-8919-1300
Homepage: <http://www.litemax.com.tw>

Record of Revision

Version and Date	Page	Old Description	New Description	Remark
8/14/07" v.01			First Release	

Contents

Record of Revision	2
Contents	3
General Description	4
Overview	4
Features	4
Application	4
General SpecificatiOns	4
Mechanical Specifications	5
Absolute Maximum Ratings	6
Absolute Ratings of Environment	6
Electrical Absolute Ratings	6
Electrical Characteristics	8
TFT LCD Module	8
Backlight Unit	9
Block Diagram	10
TFT LCD Module	10
Input Terminal Pin Assignment	11
TFT LCD Module	11
Backlight Unit	11
Color Data Input Assignment	12
Interface Timing	13
Input Signal Timing Specifications	13
Optical Characteristics	15
Test Conditions	15
Optical Specifications	16
Test Mode :	16
LED Backlight Dimming & Power Consumption and Temperature Relationship	
Test Report	18
Precautions	20
Handling Precautions	20
Storage Precautions	20
Operation Precautions	20

General Description

Overview

CM1555E is a 15.0" TFT Liquid Crystal Display module with LED Backlight units and 20 pins LVDS interface. This module supports 1024 x 768 XGA mode and can display 16.2M colors. The PSWG is to establish a set of displays with standard mechanical dimensions and select electrical interface requirements for an industry standard 15.0" XGA LCD panel and the LED Driving Board module for Backlight is not built in.

Features

- LED B/L
- 1000 nits
- Wide dimming range
- XGA (1024 x 768 pixels) resolution
- DE(data enable) only mode
- LVDS interface with 1pixel/clock
- PSWG (panel standardization working group)
- Wide operating temperature.
- RoHs compliance

Application

- TFT LCD monitor
- Factory application
- Amusement
- Transportation

General Specificati0ns

Item	Specification	Unit	Note
Active Area	304.128 (H) x 228.076(V) (15.0"LED Backlight)	mm	(1)
Bezel Opening Area	307.4(H) x 231.3(V)	mm	
Driver Element	a-Si TFT active matrix	-	-
Pixel Number	1024 x R.G.B x 768	pixel	-
Pixel Pitch	0.297(H) x 0.297(W)	mm	-
Pixel Arrangement	RGB vertical stripe	-	-
Display Colors	16.2M color	color	-
Display Mode	Normally white	-	-
Surface Treatment	Hard Coating (3H), Anti-Glare (Haze 25)	-	-

Mechanical Specifications

Item		Min.	Typ.	Max.	Unit	Note
Module Size	Horizontal(H)	326	326.5	327	mm	(1)
	Vertical(V)	248	248.5	249	mm	
	Depth(D)	-	14	14.5	mm	(1)(2)
Weight		-	-	1500	g	-

Note (1) Please refer to the attached drawings for more information of front and back outline dimensions. Note

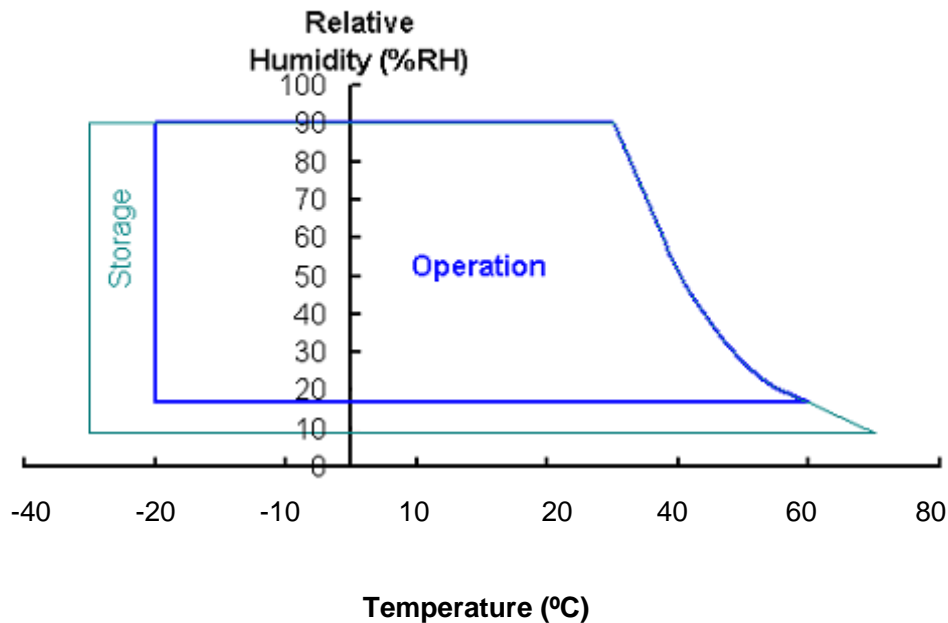
(2) The depth is without connector.



Absolute Maximum Ratings

Absolute Ratings of Environment

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-40	80	°C	(1)
Operating Ambient Temperature	T _{OP}	-20	60	°C	(1), (2), (6)
Shock (Non-Operating)	S _{NOP}	-	50G	G	(3), (5)
Vibration (Non-Operating)	V _{NOP}	-	1.5	G	(4), (5)



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

(a) 90 %RH Max. ($T_a \leq 40$ °C).

(b) No condensation of water.

Note (2) The temperature of panel surface should be -20°C Min. and 60 °C Max.

Note (3) 11ms, 1 time each $\pm X, \pm Y$ and $\pm Z$ directions

Note (4) 10 ~ 500 Hz sine wave, 30 min./1 cycle , 1.5mm max, 30 min. each X, Y and Z directions

Note (5) At testing Vibration and Shock, the fixture in holding the module has to be hard and rigid enough so that the module would not be twisted or bent by the fixture.

Note (6) Panel at -20°C ~ 60 °C operating ambient temperature should guarantee function work.

Electrical Absolute Ratings

TFT LCD Module

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Power Supply Voltage	V _{DD}	-0.3	4.0	V	

Backlight Unit

Item	Symbol	Value			Unit	Note
		Min.	Type.	Max		
LED Voltage	V _L	-	17	-	V _{RMS}	(1), (2)
LED Current	I _L	1280	1350	1420	mA _{RMS}	(1), (2)
LED Working Frequency	F _L	120	125	130	KHz	

Note (1) Permanent damage to the device may occur if maximum values are exceeded.
Function operation should be restricted to the conditions described under Normal Operating Conditions.

Note (2) Specified values are for lamp (Refer to Section 3.2 for further information).

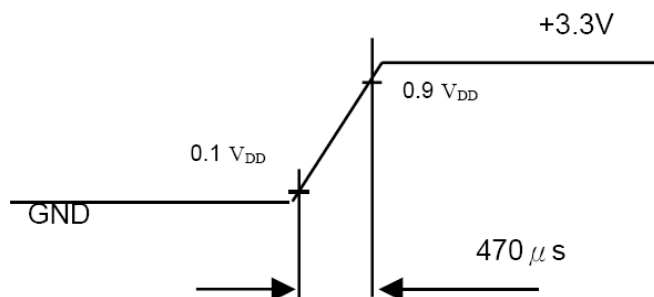
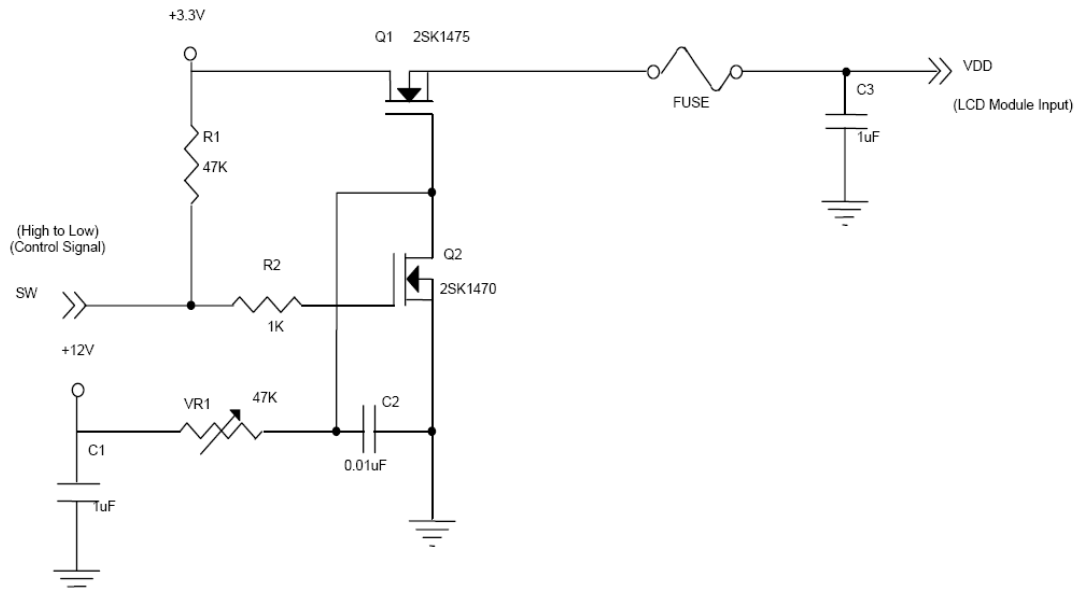
Electrical Characteristics

TFT LCD Module

Parameter	Symbol	Value			Unit	Note	
		Min	Type	Max			
Power Supply Voltage	V_{DD}	3.0	3.3	3.6	V	-	
Ripple Voltage	V_{RP}	-	-	100	mVp-p		
Rush Current	I_{RUSH}	-	-	2.0	A	(2)	
Power Supply Current	White	I_{CC}	-	500	mA	(3)a	
	Black		-	750		(3)b	
Differential Input Voltage for LVDS Receiver Threshold	"H" Level	V_{IH}	-	-	100	mV	-
	"L" Level	V_{IL}	-100	-	-	mV	-
Terminating Resistor	R_T		100	-	Ohm	-	

Note (1) The module should be always operated within above ranges.

Note (2) Measurement Conditions:



Note (3) The specified power supply current is under the conditions at $V_{DD} = 3.3V$, $T_a = 25 \pm 2 \text{ }^\circ\text{C}$, DC Current and $f_v = 60 \text{ Hz}$, whereas a power dissipation check pattern below is displayed.

a. White Pattern



Active Area

b. Black Pattern



Active Area

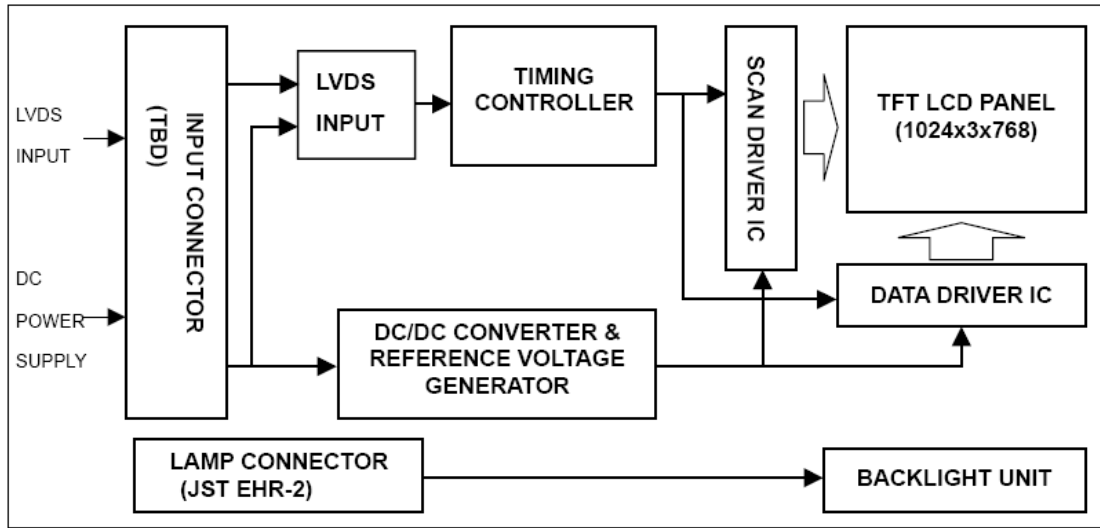
Backlight Unit

$T_a = 25 \pm 2 \text{ }^\circ\text{C}$

Parameter	Symbol	Value			Unit	Note
		Min	Type	Max		
Power Consumption	P_L	---	22.95	---	W	IL=1350
LED Life Time	L_{BL}	70000			Hrs	

Block Diagram

TFT LCD Module



Input Terminal Pin Assignment

TFT LCD Module

Pin No.	Symbol	Function	Polarity	Note
1	VDD	Power Supply +3.3V(typical)		
2	VDD	Power Supply +3.3V(typical)		
3	GND	Ground		
4	GND	Ground		
5	RX0-	LVDS Differential Data Input	Negative	
6	RX0+	LVDS Differential Data Input	Positive	
7	GND	Ground		
8	RX1-	LVDS Differential Data Input	Negative	
9	RX1+	LVDS Differential Data Input	Positive	
10	GND	Ground		
11	RX2-	LVDS Differential Data Input	Negative	
12	RX2+	LVDS Differential Data Input	Positive	
13	GND	Ground		
14	RXCLK-	LVDS Differential Data Input	Negative	
15	RXCLK+	LVDS Differential Data Input	Positive	
16	GND	Ground		
17	RX3-	LVDS Differential Data Input	Negative	
18	RX3+	LVDS Differential Data Input	Positive	
19	GND	Ground		
20	NC	tied to ground		

(1)Connector Part No.: [Hirose] DF14H-20P-1.25H

(2)Matching socket Part No.: [Hirose] DF14-20S-1.25C

Backlight Unit

Pin	Symbol	Description	Color
1	Vcc	High Voltage	Red
2	GND	Ground	Black

Note (1) Connector Part No.: BHR-HER-2 or equivalent

Note (2) Matching Connector Part No.: TBD or equivalent

Color Data Input Assignment

The brightness of each primary color (red, green and blue) is based on the 8-bit gray scale data input for the color. The higher the binary input the brighter the color. The table below provides the assignment of color versus data input.

Color		Data Signal																							
		Red								Green								Blue							
		R7	R6	R5	R4	R3	R2	R1	R0	R7	R6	G5	G4	G3	G2	G1	G0	R7	R6	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	0	0	0	0	0	0
	Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	Blue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Cyan	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Magenta	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Yellow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	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	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	0	0	0	0	0	
	Red(1)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Red(2)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	Red(252)	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Red(252)	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Red(252)	1	1	1	1	1	1	1	1	0	0	0	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	0	0	0	0	0	
	Green(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	Green(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	Green(252)	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	
	Green(252)	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	
Green(252)	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	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	0	0	0	0	0	
	Blue(1)	0	0	0	0	0	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	0	0	0	0	0	1	0	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
	Blue(252)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	
	Blue(252)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	
Blue(252)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1		

Note (1) 0: Low Level Voltage, 1: High Level Voltage

Interface Timing

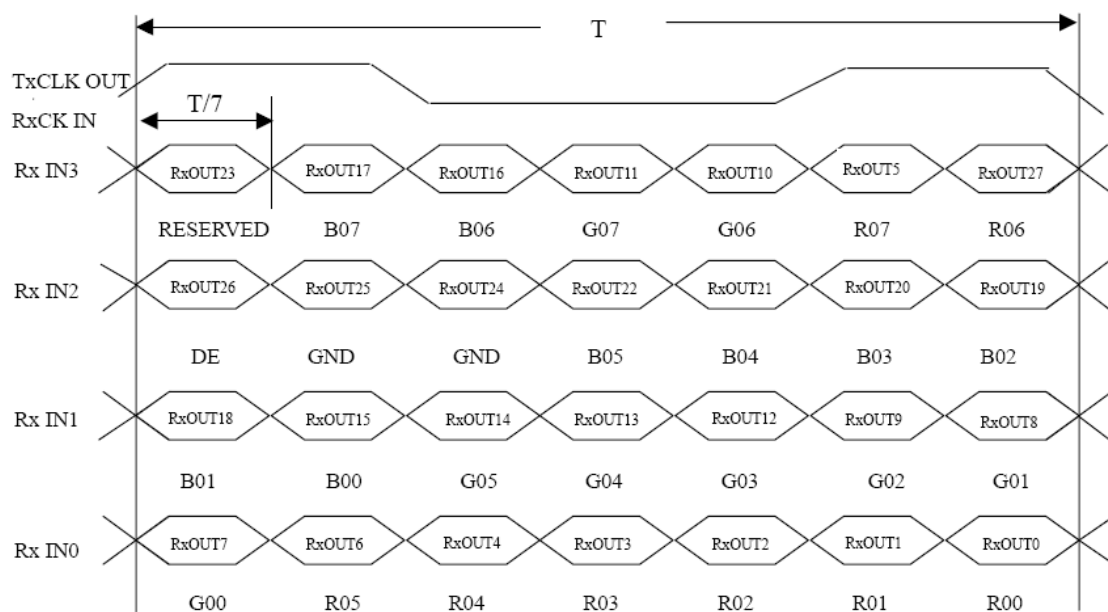
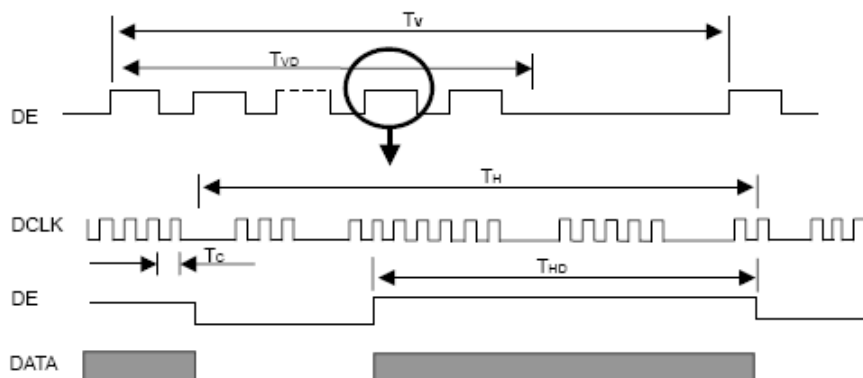
Input Signal Timing Specifications

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

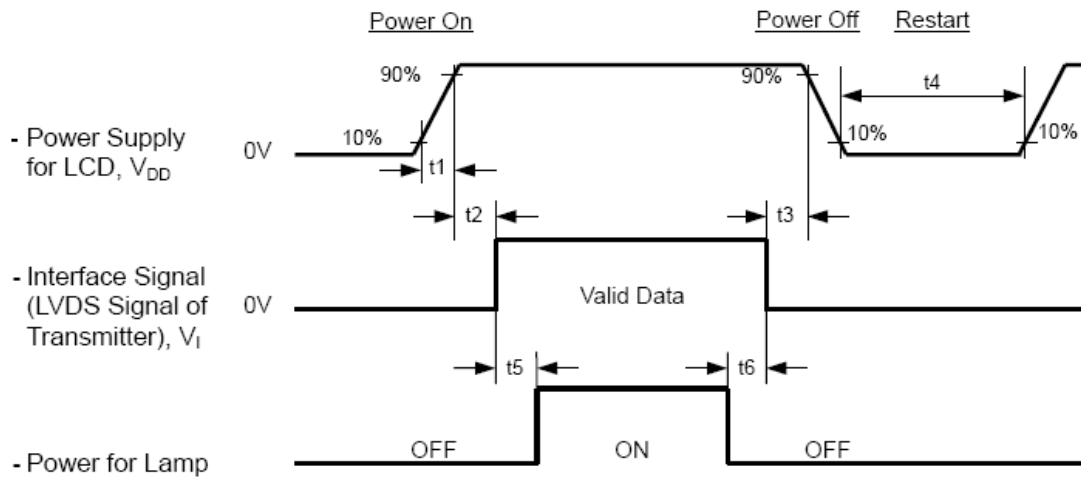
Signal	Item	Symbol	Min.	Typ.	Max.	Unit	Note
DCLK	Pixel Clock	$1/T_C$	-	65	80	MHz	-
DE	Vertical Total Time	T_V	780	806	1200	T_H	-
	Vertical Address Time	T_{VD}	768	768	768	T_H	-
	Horizontal Total Time	T_H	140	1344	1600	T_C	-
	Horizontal Address Time	T_{HD}	024	1024	1024	T_C	-

Note (1) Because this module is operated by DE only mode, Hsync and Vsync input signals should be set to low logic level or ground. Otherwise, this module would operate abnormally.

INPUT SIGNAL TIMING DIAGRAM



Power On/Off Sequence



Timing Specifications:

$$0.5 < t_1 \leq 10 \text{ msec}$$

$$0 < t_2 \leq 50 \text{ msec}$$

$$0 < t_3 \leq 50 \text{ msec}$$

$$t_4 \geq 500 \text{ msec}$$

$$t_5 \geq 200 \text{ msec}$$

$$t_6 \geq 200 \text{ msec}$$

Note (1) Please avoid floating state of interface signal at invalid period.

Note (2) When the interface signal is invalid, be sure to pull down the power supply of LCD V_{DD} to 0 V.

Note (3) The Backlight LED Driving Board power must be turned on after the power supply for the logic and the interface signal is valid. The Backlight LED Driving Board power must be turned off before the power supply for the logic and the interface signal is invalid.

Optical Characteristics

Test Conditions

Item	Symbol	Value	Unit
Ambient Temperature	Ta	25±2	°C
Ambient Humidity	Ha	50±10	%RH
Supply Voltage	V _{DD}	3.3	V
Input Signal	According to typical value in "3. ELECTRICAL CHARACTERISTICS"		
LED Current	I _L	1350	mA
LED Working Frequency	F _L	120	KHz
LED Driver Board	Litemax LID15A01		

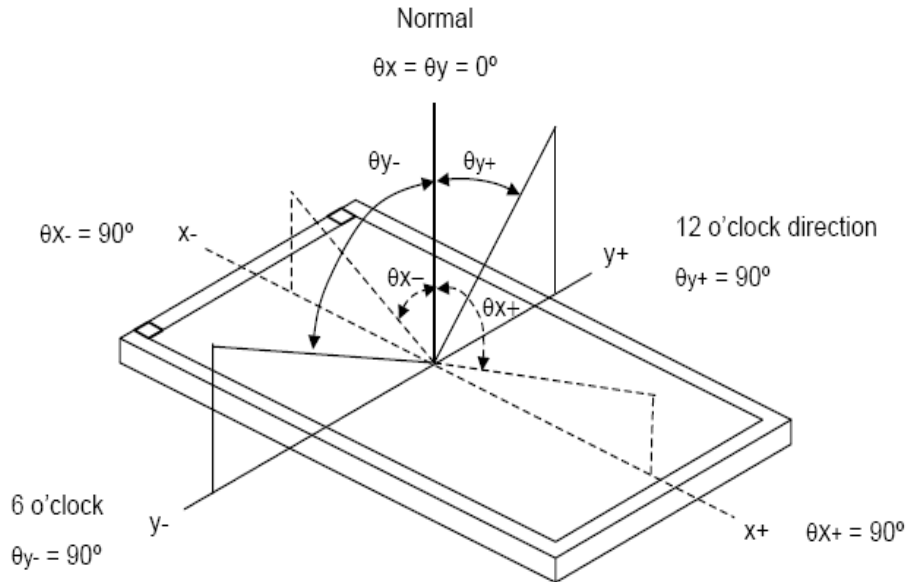
The measurement methods of optical characteristics are shown in optical Specifications
The following items should be measured under the test conditions described test conditions Section 7.1 and stable environment shown in Note (4).

Optical Specifications

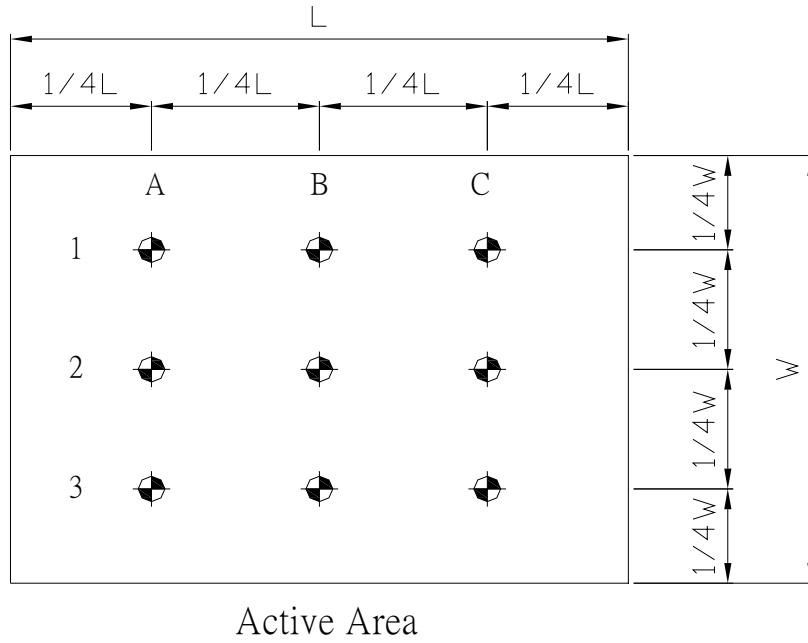
Item	Symbol	Condition	Data	Unit	Note
Color chromaticity	Red	Rx	0.5926	-	Test Mode : (1) (2) (3)
		Ry	0.3688	-	
	Green	Gx	0.3538	-	
		Gy	0.5818	-	
	Blue	Bx	0.1474	-	
		By	0.0962	-	
	White	Wx	0.3263	-	
		Wy	0.3407	-	
Center Luminance of White	Lc		1203	cd/m ²	
Average	La		1225	cd/m ²	
Uniform	Lu		88.5	%	
Contrast Ratio	CR	$\theta x=0$ $\theta y=0$ BM-7	659.7	-	Test Mode : (1) (4)
Color Saturation	NTSC	$\theta x=0$ $\theta y=0$ Klein K-10	54.59	%	
Viewing Angle	Horizontal	$\theta x+$	80	Deg	Test Mode : (1) (3)
		$\theta x-$	80		
	Vertical	$\theta y+$	80		
		$\theta y-$	80		

Test Mode :

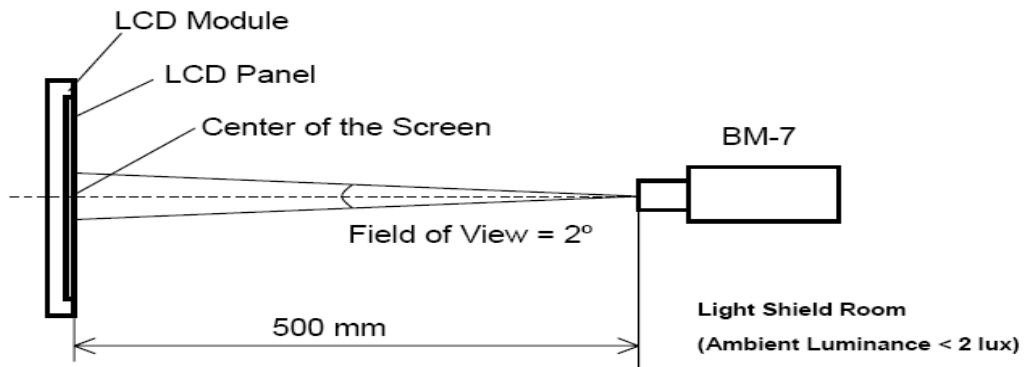
1. Definition of Viewing Angle (θ_x, θ_y) :



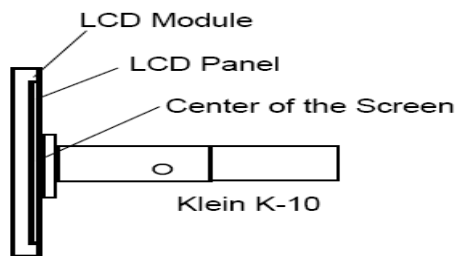
2. Definition of Test Point :



3. BM-7 Measurement Setup:



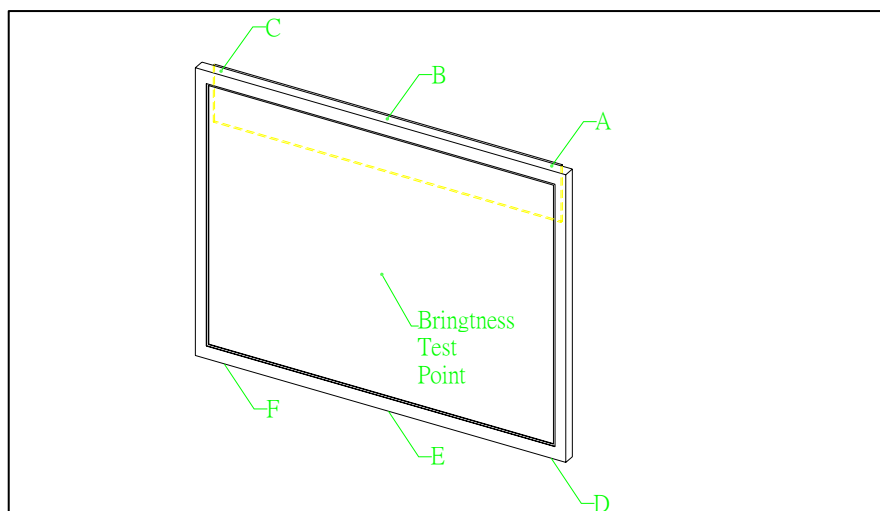
4. Klein K-10 Measurement Setup:

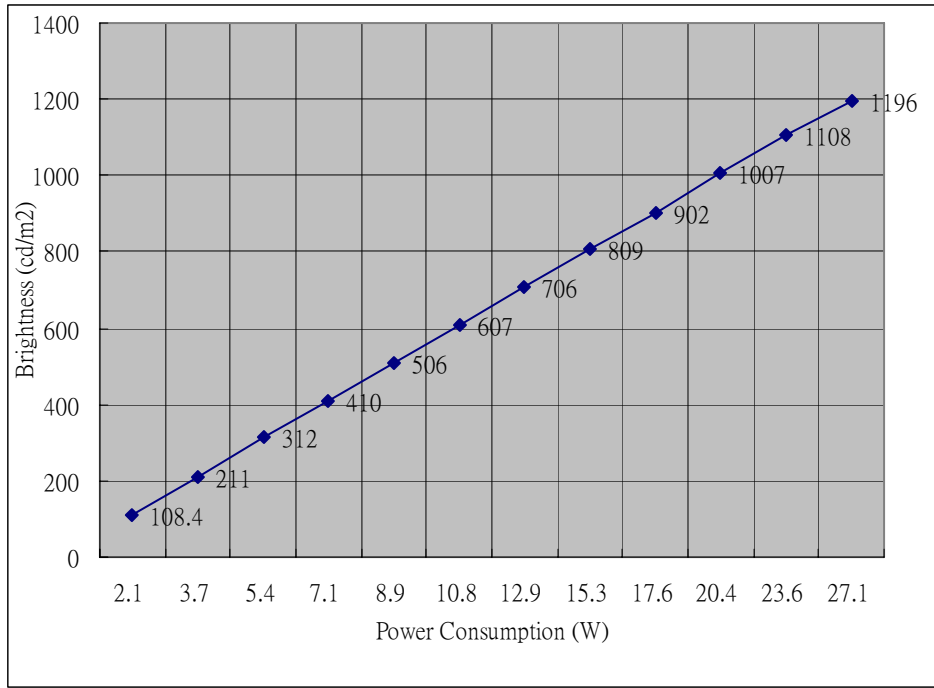


LED Backlight Dimming & Power Consumption and Temperature Relationship Test Report

Test Model	CM1555E (G150X1-L02)
Test Date	2007/8/17
Room Temperature	25° C ± 2
Test Engineer	Penney Chou
A/D Board Model	AD5766
Brightness & Contrast	B : 100% / C : 100% / (R、G、B : 100%)
Test Equipment	DC Power Supply , BM-9 Brightness Meter , PT-3S IR Thermal Meter

cd/m ²	Vin	Iin	W	Temp A	Temp B	Temp C	Temp D	Temp E	Temp F
108.4	15.9	0.13	2.1	28	29.4	30.3	24	24.1	23.7
211	16.2	0.23	3.7	28.6	30.2	27.7	23	23.4	22.3
312	16.4	0.33	5.4	30.5	32	31	26.8	27.3	26.5
410	16.6	0.43	7.1	32.7	33.9	32.3	27.4	28.1	24.4
506	16.7	0.53	8.9	35.1	36.2	34.3	25.4	25.4	25.6
607	16.9	0.64	10.8	37	38.8	36.3	30.3	30.2	29.6
706	17	0.76	12.9	39	41.8	39.1	29.9	31.8	31
809	17.2	0.89	15.3	42.1	44.7	40.7	32	32.7	31.7
902	17.3	1.02	17.6	44.2	47.7	43	34.5	34.5	33.7
1007	17.4	1.17	20.4	48	50.6	46.2	35.4	38	35
1108	17.6	1.34	23.6	51.1	55.1	49.4	38.6	39.5	38.5
1196	17.7	1.53	27.1	55.1	59.1	53	41.9	43.1	41.2





Precautions

Handling Precautions

- (1) The module should be assembled into the system firmly by using every mounting hole. Be careful not to twist or bend the module.
- (2) While assembling or installing modules, it can only be in the clean area. The dust and oil may cause electrical short or damage the polarizer.
- (3) Use fingerstalls or soft gloves in order to keep display clean during the incoming inspection and assembly process.
- (4) Do not press or scratch the surface harder than a HB pencil lead on the panel because the polarizer is very soft and easily scratched.
- (5) If the surface of the polarizer is dirty, please clean it by some absorbent cotton or soft cloth. Do not use Ketone type materials (ex. Acetone), Ethyl alcohol, Toluene, Ethyl acid or Methyl chloride. It might permanently damage the polarizer due to chemical reaction.
- (6) Wipe off water droplets or oil immediately. Staining and discoloration may occur if they left on panel for a long time.
- (7) If the liquid crystal material leaks from the panel, it should be kept away from the eyes or mouth. In case of contacting with hands, legs or clothes, it must be washed away thoroughly with soap.
- (8) Protect the module from static electricity, it may cause damage to the C-MOS Gate Array IC.
- (9) Do not disassemble the module.
- (10) Do not pull or fold the lamp wire.
- (11) Pins of I/F connector should not be touched directly with bare hands.

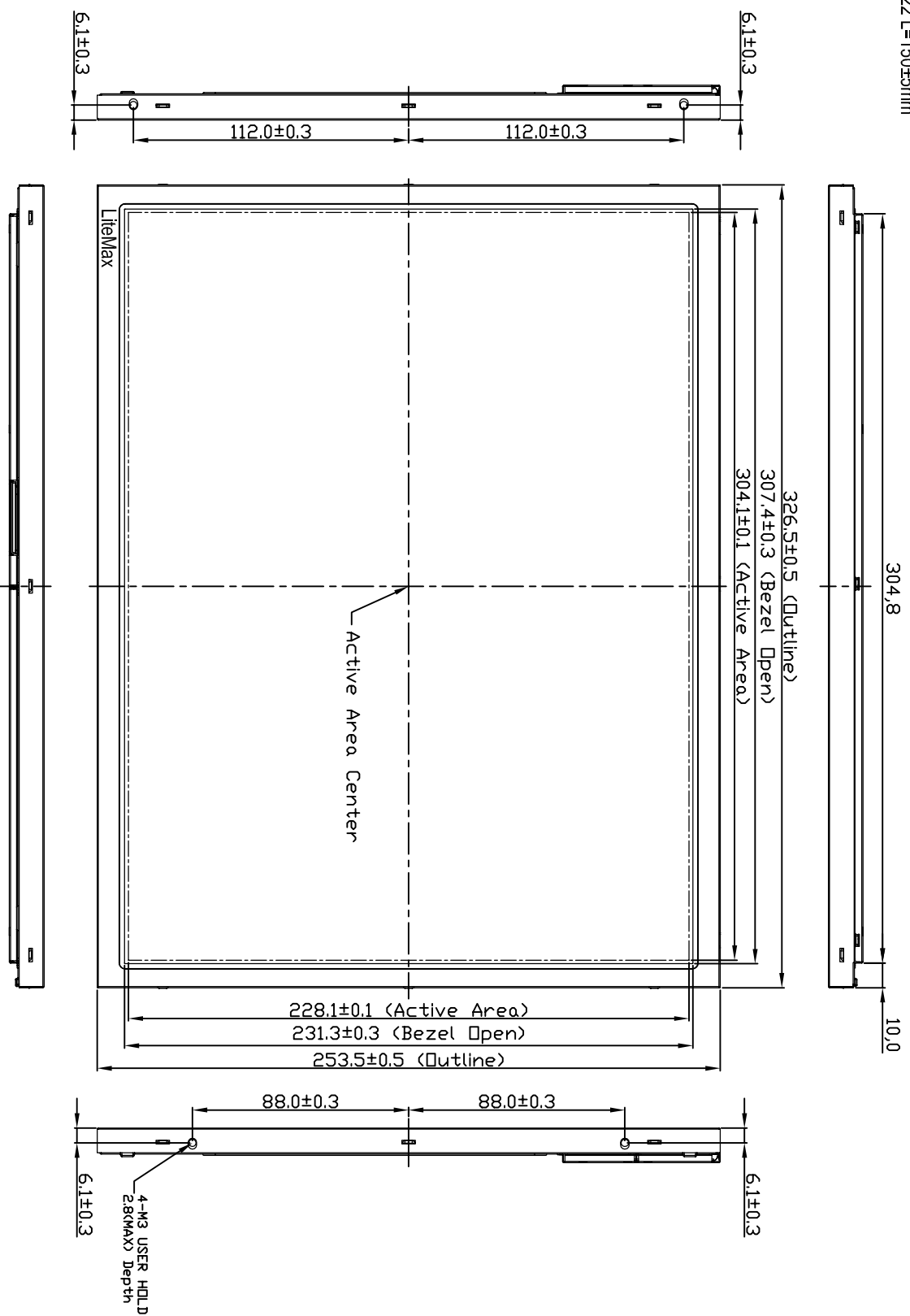
Storage Precautions

- (1) High temperature or humidity may reduce the performance of module. Please store LCD module within the specified storage conditions.
- (2) It is dangerous that moisture come into or contacted the LCD module, because the moisture may damage LCD module when it is operating.
- (3) It may reduce the display quality if the ambient temperature is lower than 10 °C. For example, the response time will become slowly, and the starting voltage of lamp will be higher than the room temperature.

Operation Precautions

- (1) Do not pull the I/F connector in or out while the module is operating.
- (2) Always follow the correct power on/off sequence when LCD module is connecting and operating. This can prevent the CMOS LSI chips from damage during latch-up.

Note :
 1. Outline Tolerance : 0.5mm
 2.LED Connector : HD2505-02
 3.LED Cable : U13239 AWG22 L=150±5mm



REV	ECN NO.	DESCRIPTION	SIGN	DATE
Δ	ECN-	Design Drawing	Penney_Chou	2007/08/14

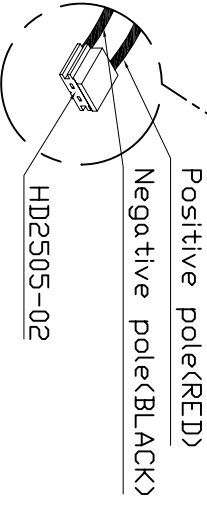
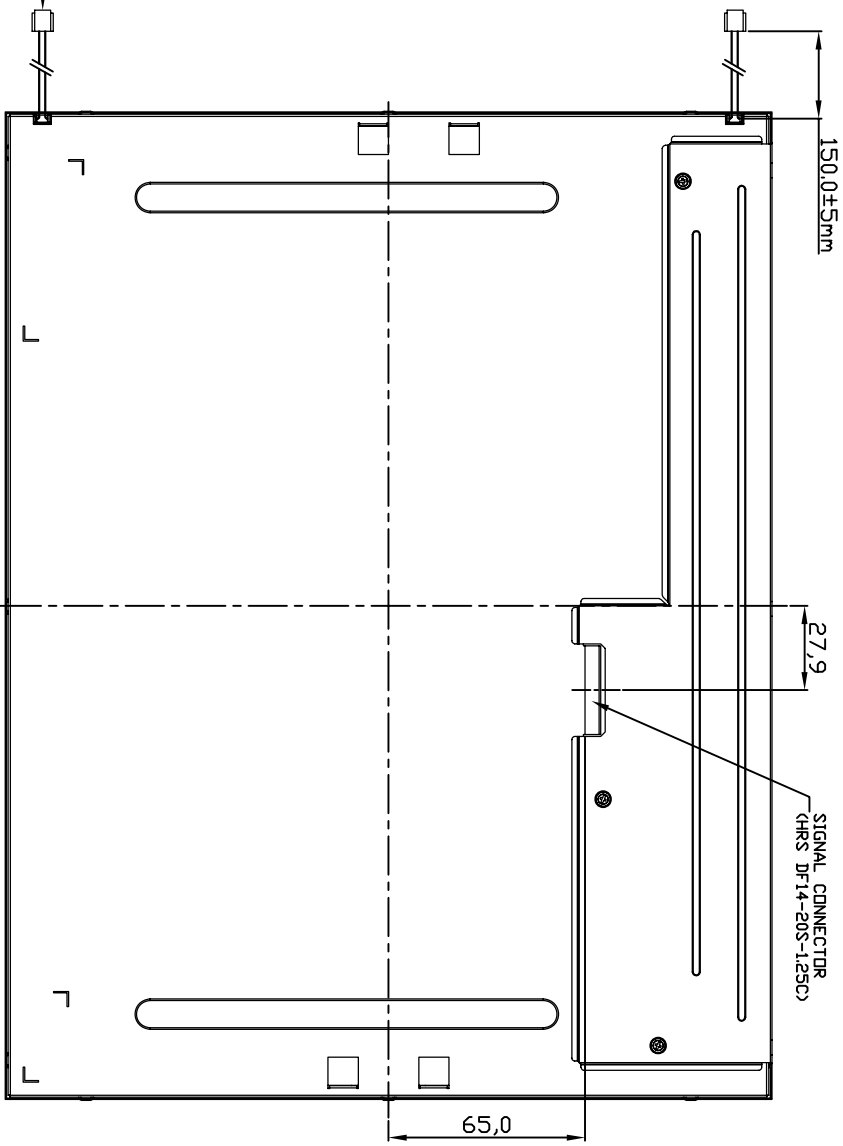
LEVEL	General tolerance ±	SELECT LEVEL	MATERIAL FINISH	CRITICAL DIMENSION
0 ~ 4	0.05	0.1	0.2	0.3
4 ~ 14	0.05	0.2	0.3	0.5
14 ~ 63	0.1	0.3	0.5	1.2
63 ~ 250	0.2	0.6	1.2	3
250 ~ 600	0.3	0.8	3	
600 ~ 4000	0.5	1.2	3	

UNIT	SCALE	WEIGHT	ANGLE	GENERAL TOLERANCE	3rd Angle	ORIGINAL MODEL
mm	1:1	-	-	-	☑	CMI555E

TITLE	DRAWING NO/GPART NO	DESCRIPTION	SIZE	SHT	REV
ASSY_MODULE_CMI555E (G150X1-P01)		LiteMax Electronic Inc.	A4	1-1	V0

APPROVED	CHECKED	DESIGNED	DIM.	LEVEL	General tolerance ±	SELECT LEVEL	MATERIAL FINISH	CRITICAL DIMENSION
		Penney_Chou	0 ~ 4	1	0.05	0.1	0.2	0.3
			4 ~ 14	2	0.05	0.2	0.3	0.5
			14 ~ 63	3	0.1	0.3	0.5	1.2
			63 ~ 250	4	0.2	0.6	1.2	3
			250 ~ 600	5	0.3	0.8	3	
			600 ~ 4000	6	0.5	1.2	3	

- Note :
- 1.Outline Tolerance : 0.5mm
 - 2.LED Connector : HD2505-02
 - 3.LED Cable : U13239 AWG22 L=150±5mm



Connector View

REV	ECN NO.	DESCRIPTION	SIGN	DATE
Δ	ECN-	Design Drawing	Penney_Chou	2007/08/14

APPROVED	CHECKED	DESIGNED	LEVEL	General tolerance ±	MATERIAL	CRITICAL DIMENSION	UNIT	SCALE	WEIGHT	ANGLE	GENERAL TOLERANCE	3rd Angle	ORIGINAL MODEL
		Penney_Chou	1	0.05		▶	mm	1:1				☉	CM1555B
			2	0.1									
			3	0.2									
			4	0.3									
			5	0.5									
			6	1.2									
			7	1.2									
			8	1.2									
			9	1.2									
			10	1.2									
			11	1.2									
			12	1.2									
			13	1.2									
			14	1.2									
			15	1.2									
			16	1.2									
			17	1.2									
			18	1.2									
			19	1.2									
			20	1.2									
			21	1.2									
			22	1.2									
			23	1.2									
			24	1.2									
			25	1.2									
			26	1.2									
			27	1.2									
			28	1.2									
			29	1.2									
			30	1.2									
			31	1.2									
			32	1.2									
			33	1.2									
			34	1.2									
			35	1.2									
			36	1.2									
			37	1.2									
			38	1.2									
			39	1.2									
			40	1.2									
			41	1.2									
			42	1.2									
			43	1.2									
			44	1.2									
			45	1.2									
			46	1.2									
			47	1.2									
			48	1.2									
			49	1.2									
			50	1.2									
			51	1.2									
			52	1.2									
			53	1.2									
			54	1.2									
			55	1.2									
			56	1.2									
			57	1.2									
			58	1.2									
			59	1.2									
			60	1.2									
			61	1.2									
			62	1.2									
			63	1.2									
			64	1.2									
			65	1.2									
			66	1.2									
			67	1.2									
			68	1.2									
			69	1.2									
			70	1.2									

TITLE ASSY_MODULE_CM1555B (G150X1-P01)

DESCRIPTION

LiteMax LiteMax Electronic Inc. SIZE A4 SH 1-1 REV V0