奇美電子
CHIMEI INNOLUX

PRODUCT SPECIFICATION

☐ Tentative Specification
☐ Preliminary Specification
■ Approval Specification

MODEL NO.: V460H1
SUFFIX: PE5

Customer:

CONFIRMED BY   **SIGNATURE**

Name / Title
APPROVED BY   **SIGNATURE**

Name / Title
Note

Please return 1 copy for your confirmation with your signature and comments.

Approved By	Checked By	Prepared By
Chao-Chun Chung	Ken Wu	Jim Ho

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REVISION HISTORY

Version	Date	Page(New)	Section	Description
Ver. 2.0	Oct 12, 2010	All	All	The approval specification was first issued.
Ver. 2.1	Oct 09, 2010	p.7	2.2	ABSOLUTE RATINGS OF ENVIRONMENT(OPEN CELL)
		p.10	3.3	SPWB INFORMATION was revised
		p.12	4.1	Revise the CN2 (XR) to CN1(XL)
		p.19	5.1	Add the Data arrangement of Flip pixel -1
		p.32	11	Mechanical characteristic

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1. GENERAL DESCRIPTION

1.1 OVERVIEW

V460H1-PE5 is a 46" TFT Liquid Crystal Display product with driver ICs and 4 path- 6 pair mini-LVDS interface.

This product supports 1920 x 1080 Full HDTV format and can display 1G colors (10 bit/FRC). The backlight unit

is not built in.

1.2 FEATURES

CHARACTERISTICS ITEMS	SPECIFICATIONS
Screen Diagonal [in]	46
Pixels [lines]	1920 $\times$ 1080
Active Area [mm]	1018.08(H) x 572.67(V) (46" diagonal)
Sub-Pixel Pitch [mm]	0.17675(H) x 0.53025(V))
Pixel Arrangement	RGB vertical stripe
Weight [g]	TYP. 2450g
Physical Size [mm]	615.32(W) ×1058.58 (H) × 1.78(D) Typ.
Display Mode	Transmissive mode / Normallly black
Contrast Ratio	5000:1 Typ. (Typical value measure at CMI's module)
Glass thickness (Array / CF) [mm]	0.7 / 0.7
Viewing Angle (CR>20)	+88/-88(H), +88/-88(V) Typ. (CR$\geq$20) (Typical value measure at CMI's module)
Color Chromaticity	R = (0.650, 0.323) G = (0.257, 0.583) B = (0.134, 0.101) W= (0.289, 0.335) * Please refer to "color chromaticity" on p.21
Cell Transparency [%]	4.8%
Polarizer Surface Treatment Spec	Anti-Glare coating (Haze 11%), Hard coating :(3H) (CF Side),(6B) (TFT Side)

1.3 MECHANICAL SPECIFICATIONS

Item	Min.	Typ.	Max.	Unit	Note
Weight	2350	2450	2550	g	-
I/F connector mounting position	The mounting inclination of the connector makes the screen center within $\pm$ 0.5mm as the horizontal.				(2)

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

Note (2) Connector mounting position

+/- 0.5mm

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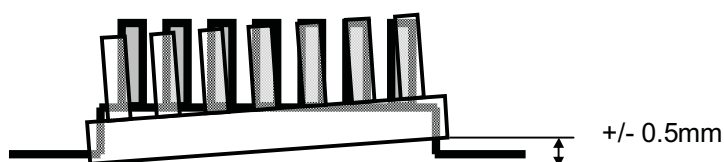
2. ABSOLUTE MAXIMUM RATINGS

2.1 ABSOLUTE RATINGS OF ENVIRONMENT

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	TST	-20	+60	ºC	(1) With CMI Module
Operating Ambient Temperature	TOP	0	50	ºC	(1), (2) With CMI Module

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

    (a) 90 %RH Max. (Ta $\leq$ 40 ºC).

    (b) Wet-bulb temperature should be 39 ºC Max. (Ta > 40 ºC).

    (c) No condensation.

Note (2) The maximum operating temperature is based on the test condition that the surface temperature of

    display area is less than or equal to 65 ºC with LCD module alone in a temperature controlled chamber.

    Thermal management should be considered in final product design to prevent the surface temperature of

    display area from being over 65 ºC. The range of operating temperature may degrade in case of

    improper thermal management in final product design.

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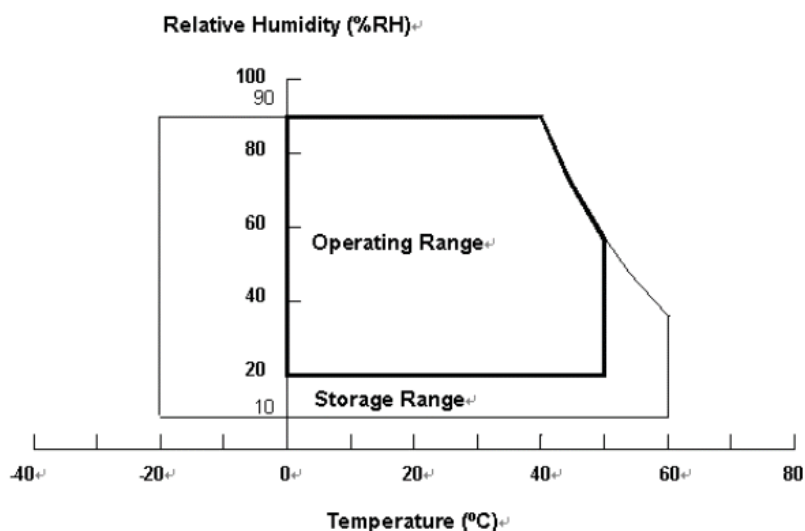
2.2 ABSOLUTE RATINGS OF ENVIRONMENT (OPEN CELL)

Recommended Storage Condition: With shipping package.

Recommended Storage temperature range: 25±5 ℃

Recommended Storage humidity range: 50±10%RH

Recommended Shelf life: a month

2.3 ELECTRICAL ABSOLUTE RATINGS

2.3.1 TFT LCD OPEN CELL

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Voltage for gate driver	VGH	-0.3	40	V	
Voltage for gate driver	VGL	-20	0.3	V	
Voltage range for gate driver	VGH - VGL	-0.3	43	V	
Voltage for data diver	VAA	12	18	V	
Logic Input Voltage	VIN	-0.3	5	V	

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3. ELECTRICAL CHARACTERISTICS

3.1 TFT LCD OPEN CELL

(Ta = 25 ± 2 ºC)

Parameter		Symbol	Value			Unit	Note
			Min.	Typ.	Max.		
Voltage for gate driver		VGH	29	30	31	V	
Voltage for gate driver		VGL	-7.7	-8	-8.3	V	
Voltage range for gate driver		VGH - VGL	36.7	38	39.3	V	
Voltage for data driver		VAA	17.4	17.7	18	V	
Voltage for data driver		VAAM	8.6	8.9	9.2	V	
Mini- LVDS interface	Differential Input High Threshold Voltage	V_{LVTH}	+100	—	—	mV	(1)
	Differential Input Low Threshold Voltage	V_{LVTL}	—	—	-100	mV	
	Common Input Voltage	V_{CM}	1.0	1.2	1.4	V	
	Differential input voltage	$|V_{ID}|$	200	—	600	mV	
	Terminating Resistor	R_T	—	100	—	ohm	
CMOS interface	Input High Threshold Voltage	V_{IH}	2.7	—	3.3	V	
	Input Low Threshold Voltage	V_{IL}	0	—	0.7	V	

Note (1) The Mini- LVDS input characteristics are as follows:

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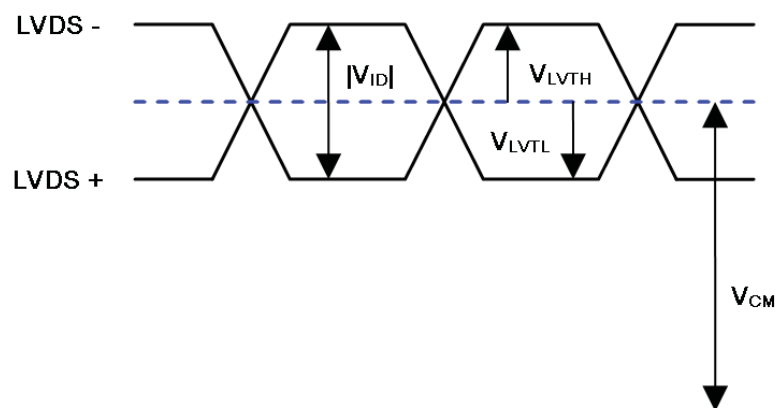
3.2 CIRCUIT AND WIRING DIAGRAM OF SPWB

Mini-LVDS signal: 4path-6pair.

Control signals of data drivers.

(CLK ——— , Data ———)

Voltages of data drivers. ———

Control signals and voltages of scan drivers. ———

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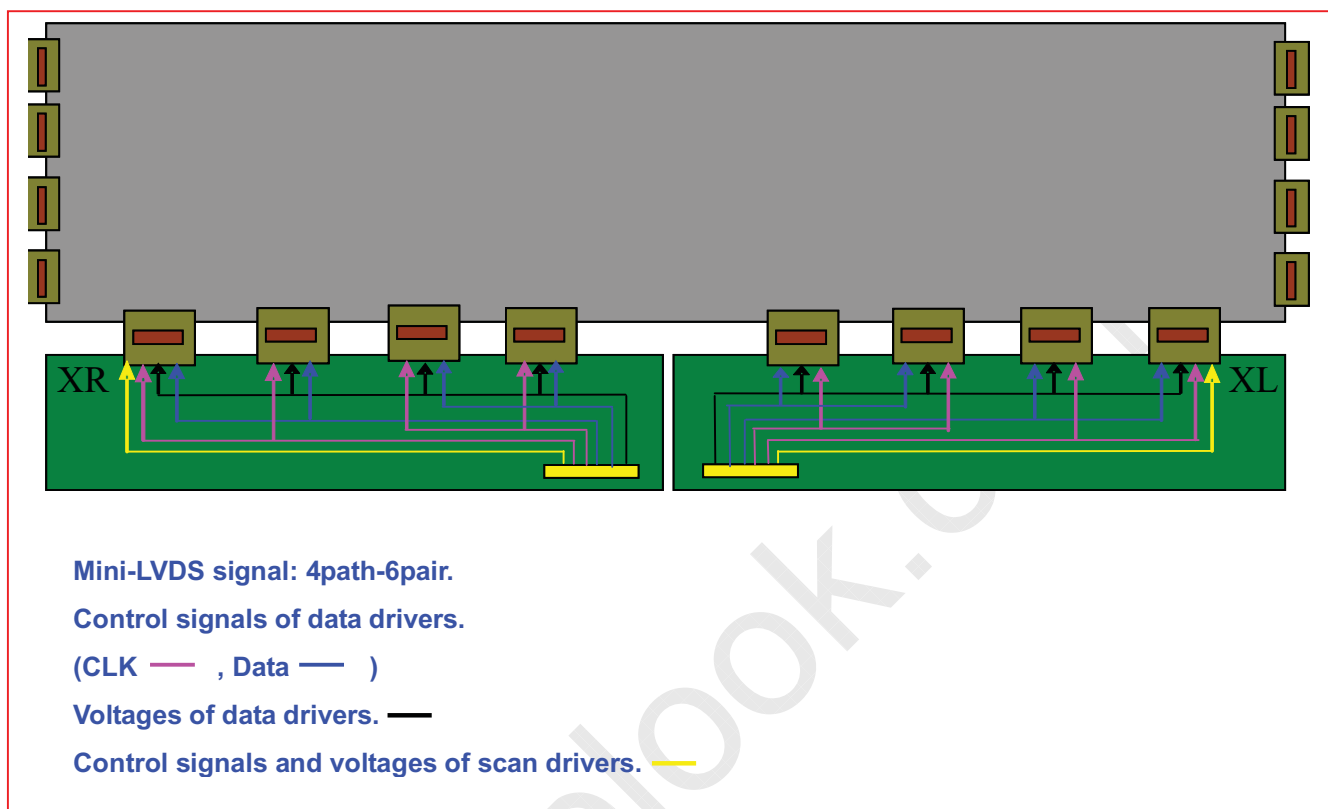
3.3 SPWB INFORMATION

	Parts Name	M't Vender	Manufacturer	Type	Flame Class	UL File
Source Board	Wiring, PCB for Source board (XL)	USI (Universal Scientific Indutrial Corp.) TSMT (Alternative) (Taiwan Surface Mounting technology Corp.)	Dynamic	M0-V0 KM-V0	94V-0	E150630(TW) E255400((KunShan)
			Tripod (Alternative)	2-9	94V-0	E222034
			TPT (Alternative)	MV-0 MV-0S	94V-0	E88441
Source Board	Wiring, PCB for Source board (XR)	USI (Universal Scientific Indutrial Corp.) TSMT (Alternative) (Taiwan Surface Mounting technology Corp.)	Dynamic	M0-V0 KM-V0	94V-0	E150630(TW) E255400((KunShan)
			Tripod (Alternative)	2-9	94V-0	E222034
			TPT (Alternative)	MV-0 MV-0S	94V-0	E88441
T-con Board	Wiring, PCB for TFT control board	USI (Universal Scientific Indutrial Corp.) TSMT (Alternative) (Taiwan Surface Mounting technology Corp.)	Dynamic	M0-V0 KM-V0	94V-0	E150630(TW) E255400((KunShan)
			Tripod (Alternative)	2-9	94V-0	E222034
			TPT (Alternative)	MV-0 MV-0S	94V-0	E88441

	Parts Name	Manufacturer	Type	Flame Class	UL File
FPC	Source COF(NT39935DH-C5226A)	Toray-Dupont	150EN	94V-0	E73117
	Gate COF(NT39530H-C5208A)	Toray-Dupont	150EN	94V-0	E73117
	Source COF(HX8159-A010CBO7)	Toray-Dupont	150EN	94V-0	E73117
	Gate COF(HX8658C00BCBMM)	Toray-Dupont	150EN	94V-0	E73117

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4. INPUT TERMINAL PIN ASSIGNMENT

4.1 TFT LCD OPEN CELL

CN1（XL）Connector Pin Assignment ：P-TWO 196225-80041

Pin	Name	Description	Note
1	GND	Ground	
2	MLB6N	Mini-LVDS data signal-	
3	MLB6P	Mini-LVDS data signal+	
4	MLB5N	Mini-LVDS data signal-	
5	MLB5P	Mini-LVDS data signal+	
6	MLB4N	Mini-LVDS data signal-	
7	MLB4P	Mini-LVDS data signal+	
8	GND	Ground	
9	MLBCKN	Mini-LVDS clock signal-	
10	MLBCKP	Mini-LVDS clock signal+	
11	GND	Ground	
12	MLB2N	Mini-LVDS data signal-	
13	MLB2P	Mini-LVDS data signal+	
14	MLB1N	Mini-LVDS data signal-	
15	MLB1P	Mini-LVDS data signal+	
16	MLB0N	Mini-LVDS data signal-	
17	MLB0P	Mini-LVDS data signal+	
18	GND	Ground	
19	MLA6N	Mini-LVDS data signal-	
20	MLA6P	Mini-LVDS data signal+	
21	MLA5N	Mini-LVDS data signal-	
22	MLA5P	Mini-LVDS data signal+	
23	MLA4N	Mini-LVDS data signal-	
24	MLA4P	Mini-LVDS data signal+	
25	GND	Ground	
26	MLACKN	Mini-LVDS clock signal-	
27	MLACKP	Mini-LVDS clock signal+	
28	GND	Ground	
29	MLA2N	Mini-LVDS data signal-	
30	MLA2P	Mini-LVDS data signal+	
31	MLA1N	Mini-LVDS data signal-	
32	MLA1P	Mini-LVDS data signal+	
33	MLA0N	Mini-LVDS data signal-	
34	MLA0P	Mini-LVDS data signal+	
35	GND	Ground	
36	GND	Ground	
37	OE1	Scan driver output enable	
38	OE2	Scan driver output enable	
39	CKV	Scan driver clock	
40	POL	Data driver polarity invert	
41	NC	No connection	
42	STV	Scan driver start pulse	
43	TP1	Data driver data latch	
44	NC	No connection	
45	EIO4	4path selection pin (3.3V)	
46	VDASEL	Half VAA selection	
47	GND	Ground	
48	GM18	Gamma voltage	
49	GM17	Gamma voltage	
50	GM16	Gamma voltage	

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51	GM15	Gamma voltage	
52	GM14	Gamma voltage	
53	GM13	Gamma voltage	
54	GM12	Gamma voltage	
55	GM10	Gamma voltage	
56	GM9	Gamma voltage	
57	GM7	Gamma voltage	
58	GM6	Gamma voltage	
59	GM5	Gamma voltage	
60	GM4	Gamma voltage	
61	GM3	Gamma voltage	
62	GM2	Gamma voltage	
63	GM1	Gamma voltage	
64	GND	Ground	
65	VAAM	Half VAA voltage	
66	VAAM	Half VAA voltage	
67	GND	Ground	
68	VCM	VCOM voltage	
69	VCM	VCOM voltage	
70	GND	Ground	
71	VAA	VAA voltage	
72	VAA	VAA voltage	
73	GND	Ground	
74	VDD	Logic power	
75	VDD	Logic power	
76	VGL	Scan driver voltage	
77	VGL	Scan driver voltage	
78	VGH	Scan driver voltage	
79	VGH	Scand driver voltage	
80	GND	Ground	

CN1（XR）Connector Pin Assignment ：P-TWO 196225-80041

Pin	Name	Description	Note
1	GND	Ground	
2	VGH	Scan driver voltage	
3	VGH	Scan driver voltage	
4	VGL	Scan driver voltage	
5	VGL	Scand driver voltage	
6	VDD	Logic power	
7	VDD	Logic power	
8	GND	Ground	
9	VAA	VAA voltage	
10	VAA	VAA voltage	
11	GND	Ground	
12	VCM	VCOM voltage	
13	VCM	VCOM voltage	
14	GND	Ground	
15	VAAM	Half VAA voltage	
16	VAAM	Half VAA voltage	
17	GND	Ground	
18	NC	No connection	
19	VDASEL	Half VAA selection	
20	EIO4	4path selection pin (3.3V)	
21	NC	No connection	
22	TP1	Data driver data latch	

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23	STV	Scan driver start pulse	
24	NC	No connection	
25	POL	Data driver polarity invert	
26	CKV	Scan driver clock	
27	OE2	Scan driver output enable	
28	OE1	Scan driver output enable	
29	GND	Ground	
30	MLD6N	Mini-LVDS data signal-	
31	MLD6P	Mini-LVDS data signal+	
32	MLD5N	Mini-LVDS data signal-	
33	MLD5P	Mini-LVDS data signal+	
34	MLD4N	Mini-LVDS data signal-	
35	MLD4P	Mini-LVDS data signal+	
36	GND	Ground	
37	MLDCKN	Mini-LVDS clock signal-	
38	MLDCKP	Mini-LVDS clock signal+	
39	GND	Ground	
40	MLD2N	Mini-LVDS data signal-	
41	MLD2P	Mini-LVDS data signal+	
42	MLD1N	Mini-LVDS data signal-	
43	MLD1P	Mini-LVDS data signal+	
44	MLD0N	Mini-LVDS data signal-	
45	MLD0P	Mini-LVDS data signal+	
46	GND	Ground	
47	MLC6N	Mini-LVDS data signal-	
48	MLC6P	Mini-LVDS data signal+	
49	MLC5N	Mini-LVDS data signal-	
50	MLC5P	Mini-LVDS data signal+	
51	MLC4N	Mini-LVDS data signal-	
52	MLC4P	Mini-LVDS data signal+	
53	GND	Ground	
54	MLCCKN	Mini-LVDS clock signal-	
55	MLCCKP	Mini-LVDS clock signal+	
56	GND	Ground	
57	MLC2N	Mini-LVDS data signal-	
58	MLC2P	Mini-LVDS data signal+	
59	MLC1N	Mini-LVDS data signal-	
60	MLC1P	Mini-LVDS data signal+	
61	MLC0N	Mini-LVDS data signal-	
62	MLC0P	Mini-LVDS data signal+	
63	GND	Ground	
64	GM18	Gamma voltage	
65	GM17	Gamma voltage	
66	GM16	Gamma voltage	
67	GM15	Gamma voltage	
68	GM14	Gamma voltage	
69	GM13	Gamma voltage	
70	GM12	Gamma voltage	
71	GM10	Gamma voltage	
72	GM9	Gamma voltage	
73	GM7	Gamma voltage	
74	GM6	Gamma voltage	
75	GM5	Gamma voltage	
76	GM4	Gamma voltage	
77	GM3	Gamma voltage	
78	GM2	Gamma voltage	

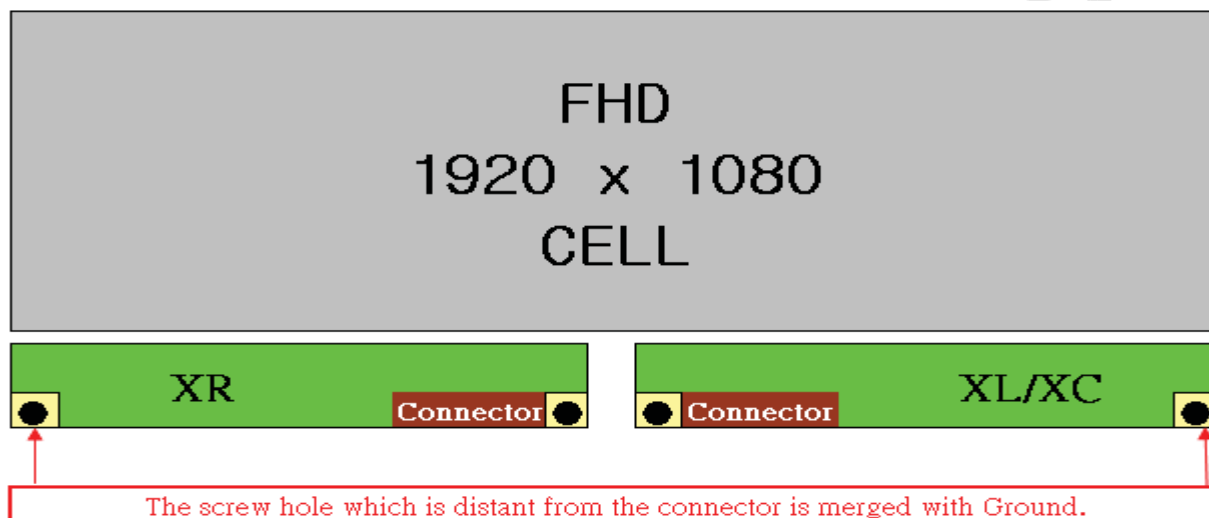PRODUCT SPECIFICATION

| 79 | GM1 | Gamma voltage | |
| 80 | GND | Ground | |

Note (1) VDA select: Half/Full VAA operating range selection.

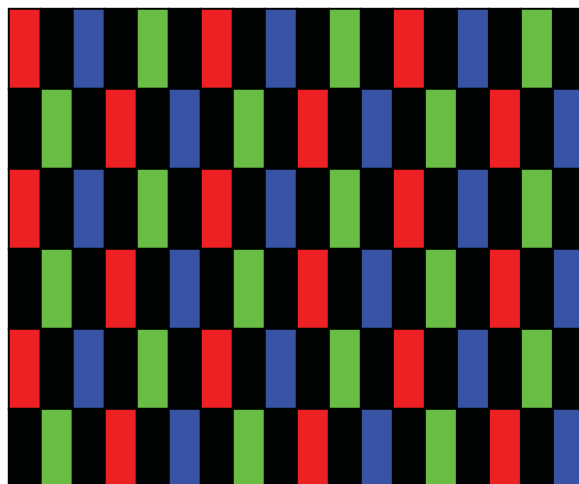Low = Connect to GND, High = Connect to +3.3V

VDA SEL	Note
L	Full VAA
H	Half VAA

Note (2)The screw hole which is distant from the connector is merged with Ground

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4.2 FLICKER (Vcom) ADJUSTMENT

(1) Adjustment Pattern:

Sub-pixel on-off pattern was shown as below. If customer need below pattern, please directly contact with Account FAE.

(2) Adjustment method: (Digital V-com)

Programmable memory IC is used for Digital V-com adjustment in this model. CMI provide Auto Vcom tools to adjust Digital V-com.The detail connection and setting instruction, please directly contact with Account FAE or refer CMI Auto V-com adjustment OI. Below items is suggested to be ready before Digital V-com adjustment in customer LCM line.
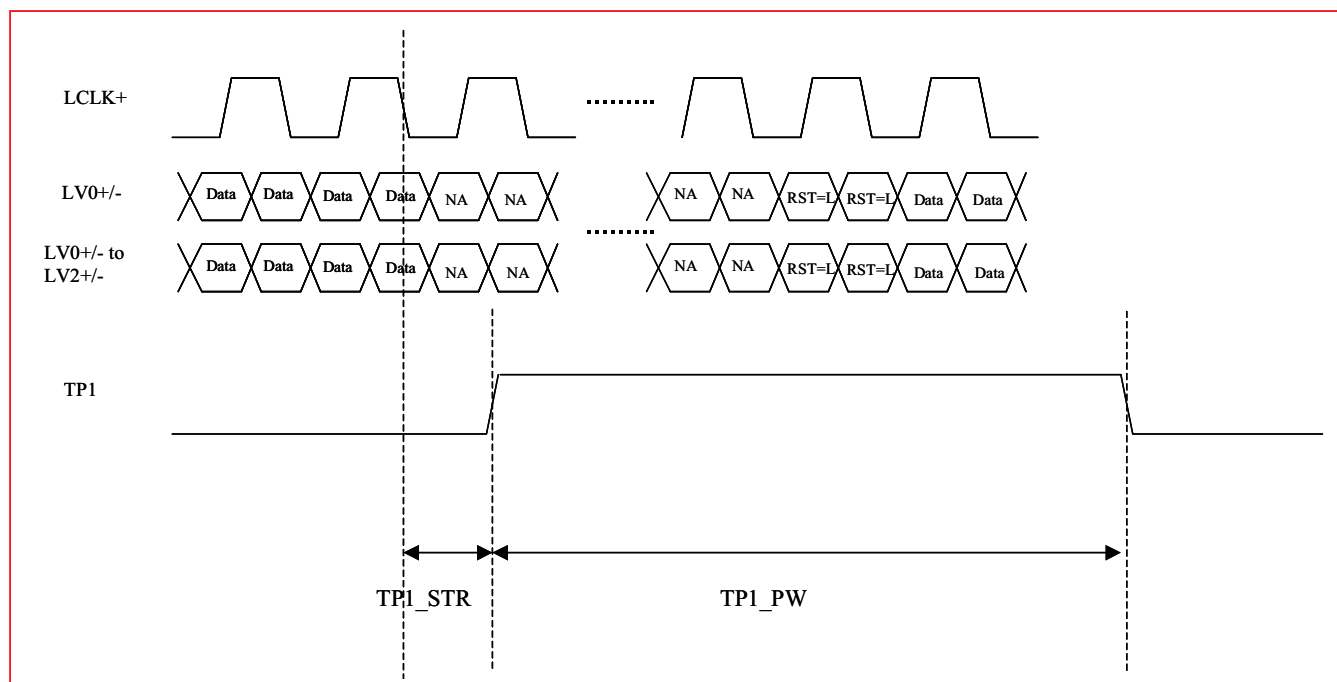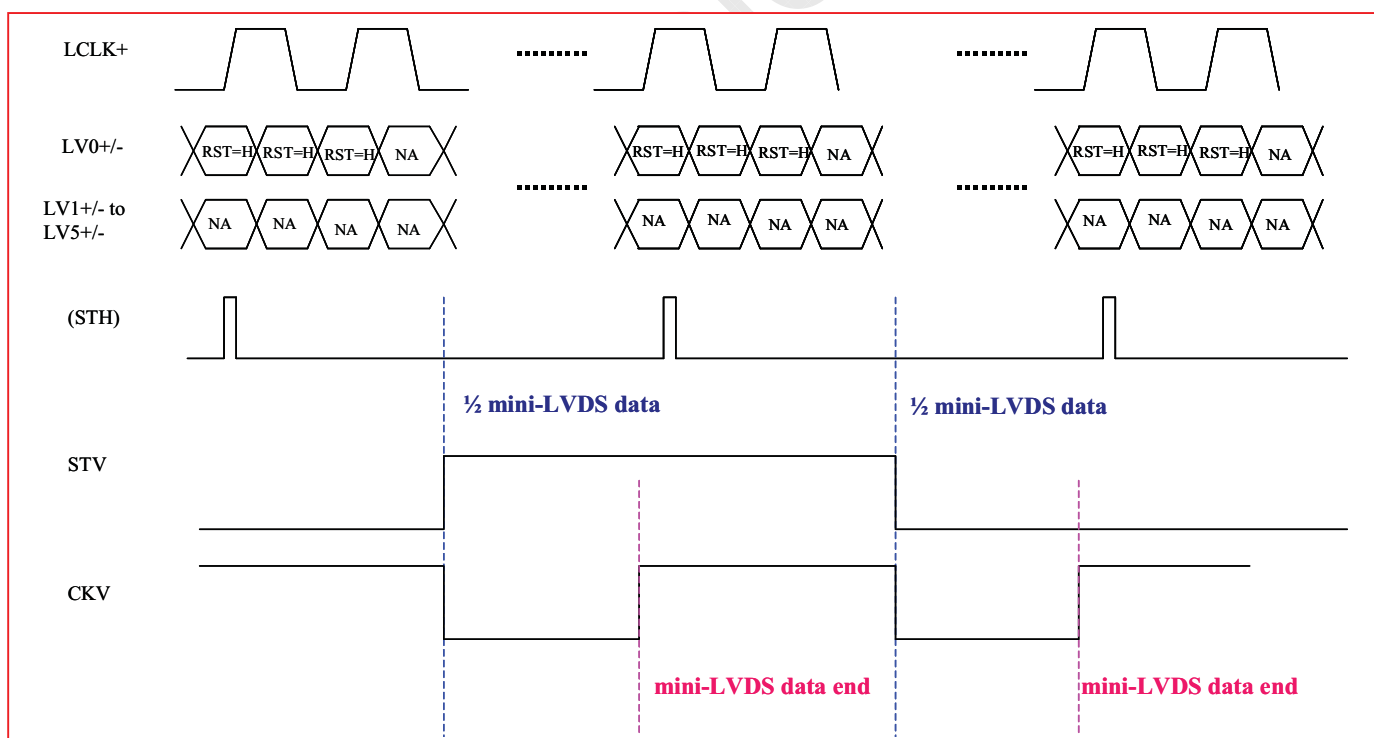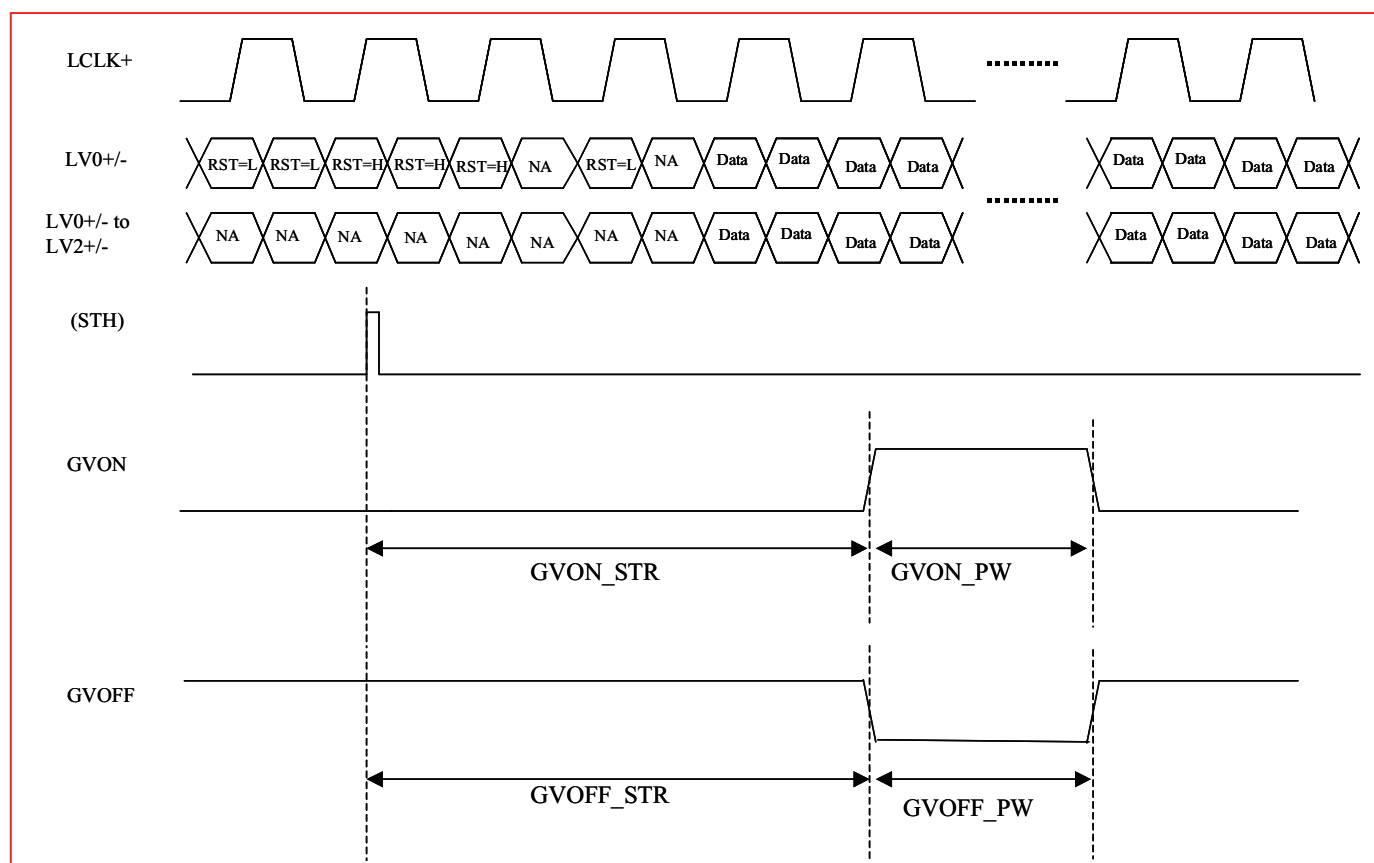
a. USB Sensor Board.

b. Programmable software.

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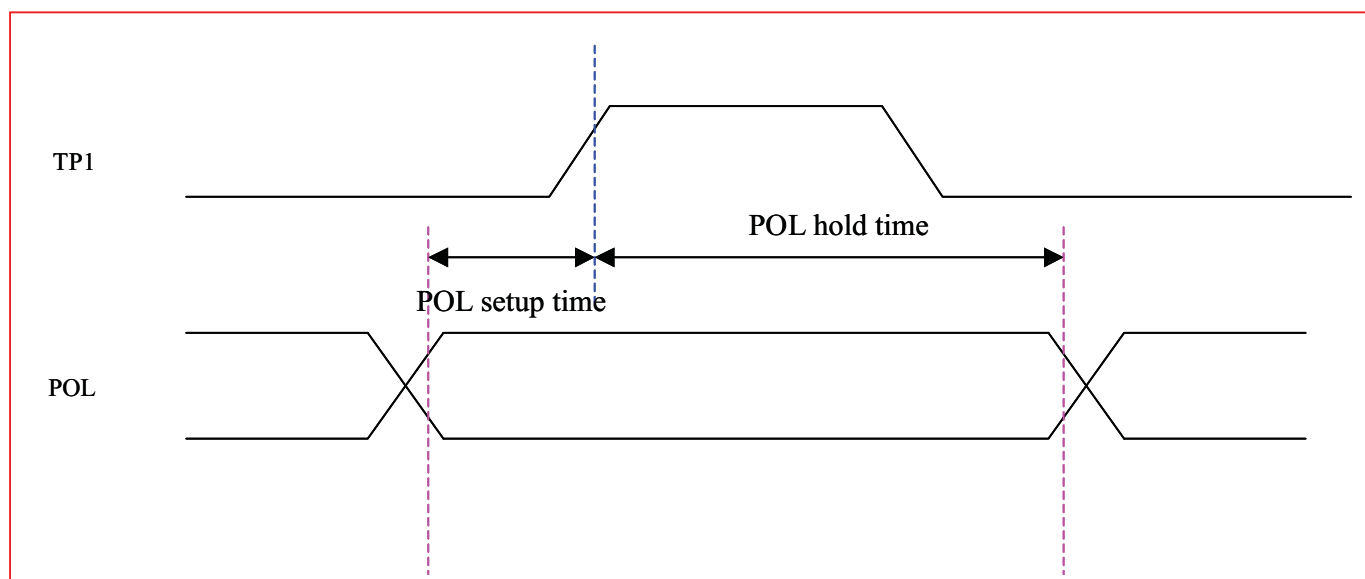## 5. INTERFACE TIMING

5.1 INPUT SIGNAL TIMING SPECIFICATIONS

(Ta = 25 ± 2 ℃)

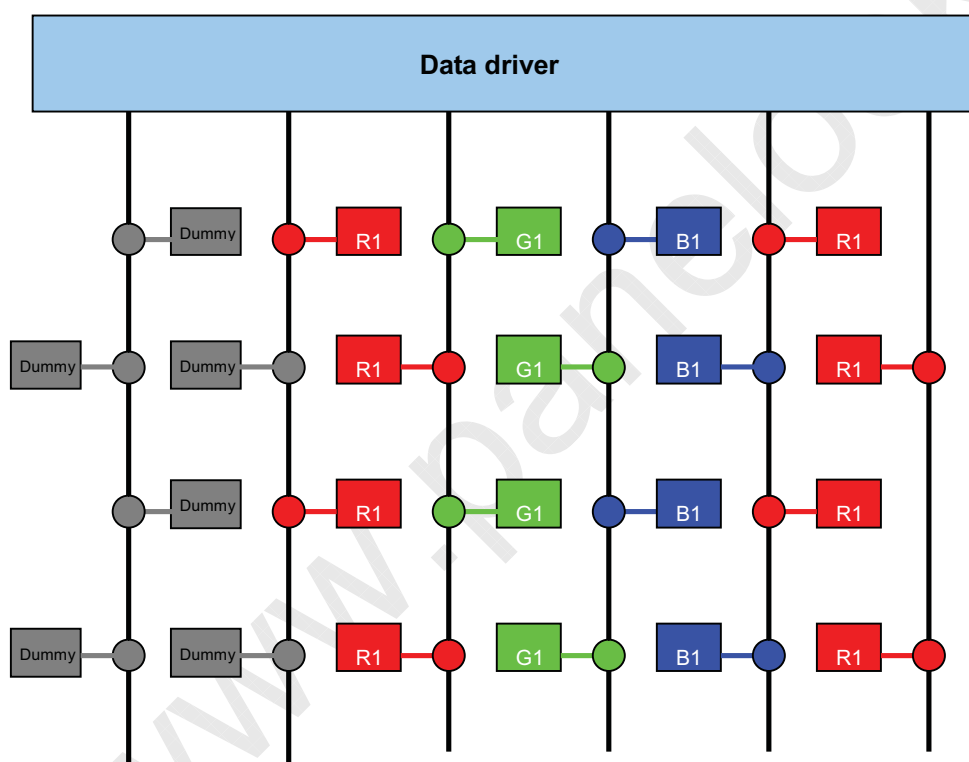The input signal timing specifications are shown as the following table and timing diagram.

Signal	Item	Symbol	Typ	Unit
TP1	TP1 start	TP1_STR	203	CLK
	TP1 pulse width	TP1_PW	20	CLK
OE	OE1 start	OE1_STR	137	CLK
	OE1 pulse width	OE1_PW	66	CLK
	OE2 start	OE2_STR	137	CLK
	OE2_PW	OE2_PW	66	CLK
Gate shaping	GVON start	GVON_STR	--	--
	GVON pulse width	GVON_PW	--	--
	GVOFF start	GVOFF_STR	70	CLK
	GVOFF pulse width	GVOFF_PW	20	CLK
STV	Scan driver start pulse	STV	37	CLK
CKV	Scan driver clock	CKV	110	CLK
POL	Data driver polarity invert	POL	123	CLK
Data arrangement			Flip pixel -1	

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TP1

POL hold time

POL setup time

POL

Note: Data arrangement of Flip pixel -1

Data driver

Dummy	R1	G1	B1	R1
Dummy	Dummy	R1	G1	B1	R1
Dummy	R1	G1	B1	R1
Dummy	Dummy	R1	G1	B1	R1

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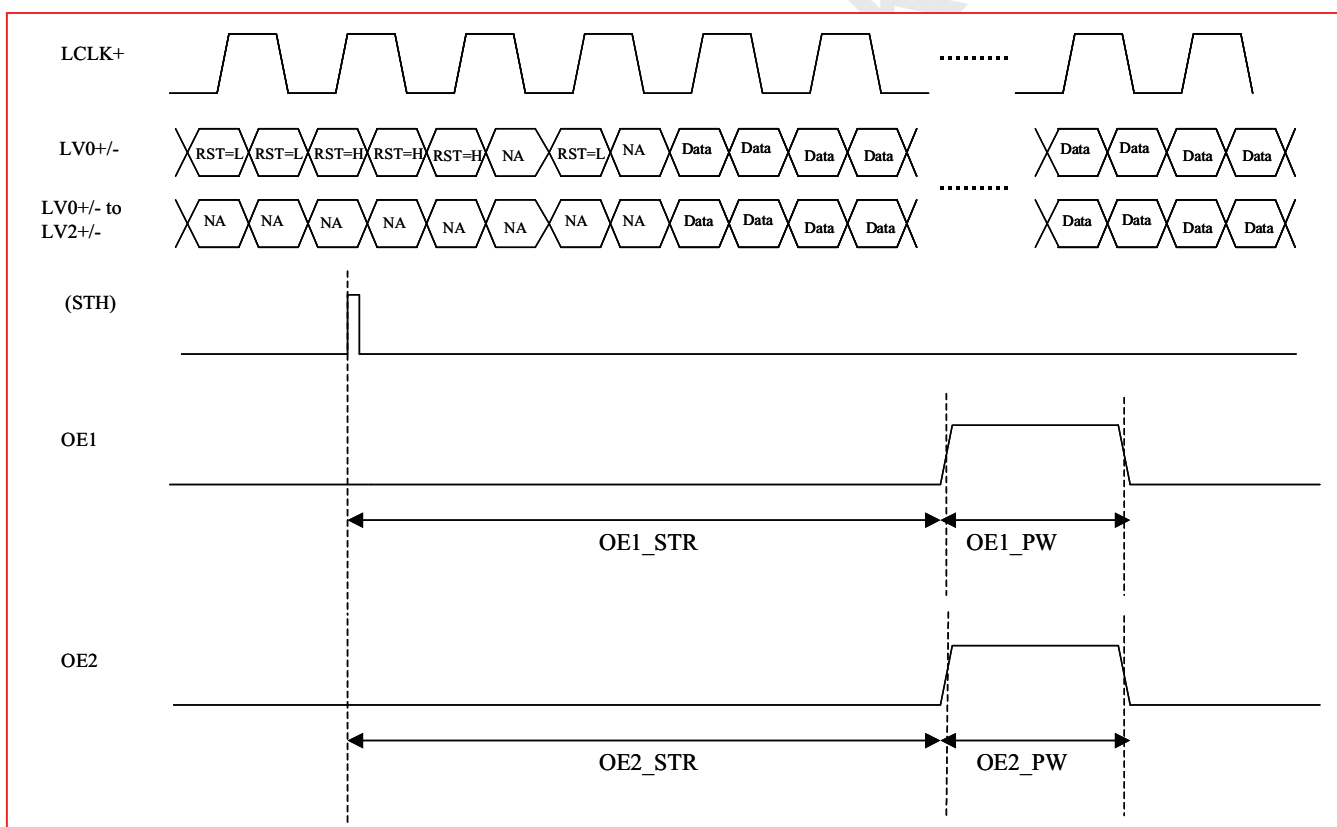
6. OPTICAL CHARACTERISTICS

6.1 TEST CONDITIONS

Item	Symbol	Value	Unit
Ambient Temperature	Ta	25$\pm$2	^{o}C
Ambient Humidity	Ha	50$\pm$10	%RH
Vertical Frame Rate	Fr	120	Hz

Note (1)The LCD module should be stabilized at given temperature for 1 hour to avoid abrupt temperature

change during measuring in a windless room.
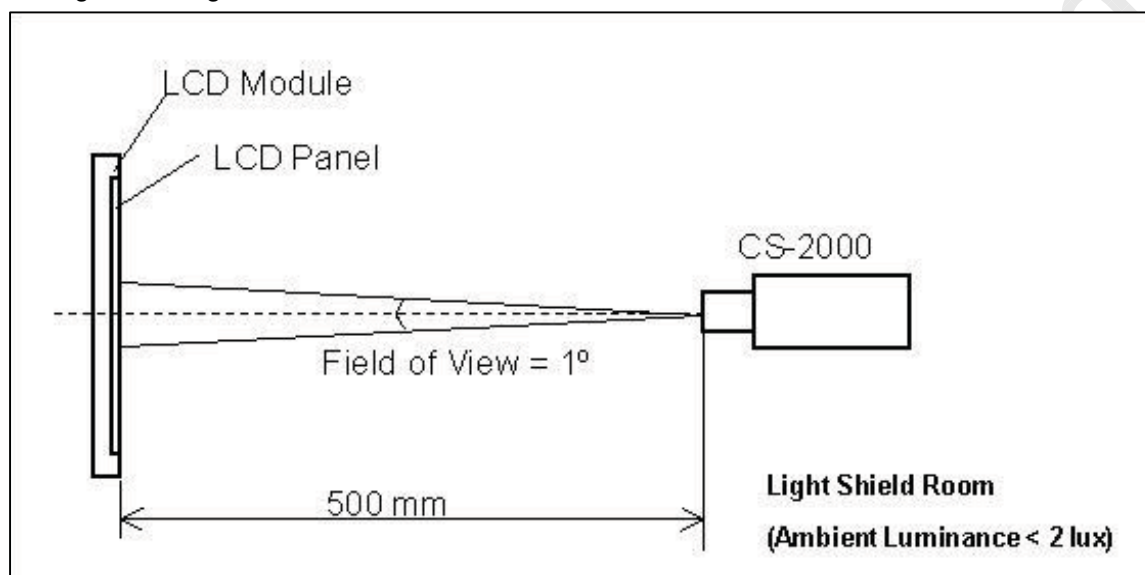
Note (2) The LCD module should be measured with CMI T-CON code and follow the T-CON spec.

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6.2 OPTICAL SPECIFICATIONS

The relative measurement methods of optical characteristics are shown as below. The following items should be measured under the test conditions described in 6.1 and stable environment shown in 6.1.

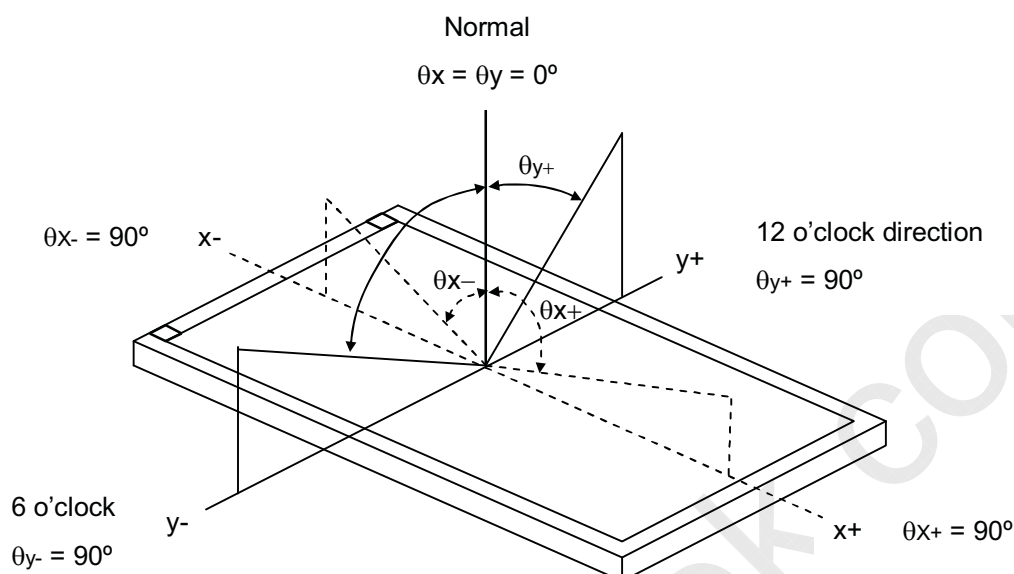| Item			Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Color Chromaticity	Red	Rcx		$\theta_x=0°$, $\theta_Y=0°$ Viewing Angle at Normal Direction Standard light source "C"	-	0.650	-	-	(0)
		Rcy				0.323		-	
	Green	Gcx				0.257		-	
		Gcy				0.583		-	
	Blue	Bcx				0.134		-	
		Bcy				0.101		-	
	White	Wcx				0.289		-	
		Wcy				0.335		-	
Center Transmittance			T%	$\theta_x=0°$, $\theta_Y=0°$ with CMI module	-	4.8	-	%	(1),(5)
Contrast Ratio			CR		3500	5000	-	-	(1),(3)
Response Time			T_R	$\theta x=0°$, $\theta Y=0°$ with CMI Module@120Hz, Panel temperature is 34±1℃	-	35	-	ms	(1),(4)
			T_F		-	4.5	-	ms	
			Gray to gray		-	5.5	12	ms	(1),(4)
Viewing Angle	Horizontal	θ_x+		CR≥20 With CMI module	-	88	-	Deg.	(1),(2)
		θ_x-			-	88	-		
	Vertical	θ_Y+			-	88	-		
		θ_Y-			-	88	-		

Note (0) Light source is the standard light source "C" which is defined by CIE and driving voltage are based on suitable gamma voltages. The calculating method is as following:

1. Measure Module's W,R,G,B spectrum and BLU's spectrum. Which BLU is supplied by Sony.

2. Calculate cell's spectrum.

3. Calculate cell's chromaticity by using the spectrum of standard light source "C".

Note (1) Light source is the BLU which supplied by CMI and driving voltage are based on suitable gamma voltages.

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Note (2) Definition of Viewing Angle (θx, θy):

Viewing angles are measured by Autronic Conoscope Cono-80

Normal

θx = θy = 0º

θy+

θx- = 90º　x-

12 o'clock direction

θy+ = 90º

y+

θx−

θx+

6 o'clock

y-

x+　θx+ = 90º

θy- = 90º

Note (3) Definition of Contrast Ratio (CR):

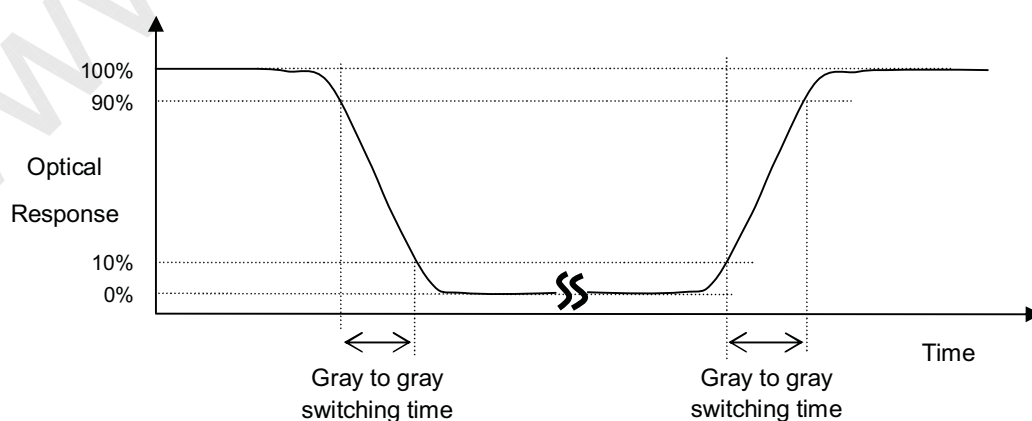The contrast ratio can be calculated by the following expression.

$$\text{Contrast Ratio (CR)} = \frac{\text{Surface Luminance of L255}}{\text{Surface Luminance of L0}}$$

L255: Luminance of gray level 255

L 0: Luminance of gray level 0

CR = CR (5), where CR (X) is corresponding to the Contrast Ratio of the point X at the figure in Note (6).

Note (4) Definition of Response Time (T_R, $T_{F,}$ Gray to Gray) :

100%
90%

Optical

Response

10%
0%

Time

Gray to gray
switching time

Gray to gray
switching time

The driving signal means the signal of gray level 0, 31, 63, 95, 127, 159, 191, 223 and 255

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T_R means switching time from gray 0 to 255

T_F means switching time from gray 255 to 0

Gray to gray means the average switching time of gray level 0, 31, 63, 95, 127, 159, 191, 223 and 255 to each other.

Note (5) Definition of Transmittance (T%) :

Measure the luminance of gray level 255 at center point of LCD module.

$$\text{Transmittance (T\%)} = \frac{\text{Luminance of LCD module}}{\text{Luminance of backligh unit}} \times 100\%$$

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7. RELIABILITY TEST CONDITION

NO.	Test Item	Test Condition
1	HT Operation	Ta=50℃, 1000hrs
2	HT Storage	Ta=60℃, 500hrs
3	LT Operation	Ta=0℃, 500hrs
4	LT Storage	Ta=-20℃, 500hrs
5	HTHH Operation	Ta=50℃/ 80%RH, 500hrs
6	HTHH Storage	Ta=50℃/ 90%RH, 500hrs
7	Thermal Shock (Non-operation)	[(-20℃ 30min)→(60℃ 30min)]/cycle, 200cycles
8	Image Sticking	Ta=50℃, 300hrs
9	ESD-Air mode Discharge	150pf，330Ω, ±15KV (operation) Class C (With CMI Module)
10	ESD-Contact Mode Discharge	150pf，330Ω, ±8KV (operation) Class B (With CMI Module)
11	Packing Vibration	1.14Grms Random frequency 1~200Hz 30min/Bottom, 15min/Right-Left, 15min/Front-Back
12	Packing Drop	Bottom 20cm+ 4 edges with 15 angle

PRODUCT SPECIFICATION

8. PRECAUTIONS

8.1 ASSEMBLY AND HANDLING PRECAUTIONS

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

[2] It is recommended to assemble or to install a module into the user's system in clean working areas. The dust and oil may cause electrical short or worsen the polarizer.

[3] Do not apply pressure or impulse to the module to prevent the damage of LCD panel.

[4] Always follow the correct power-on sequence when the LCD module is turned on. This can prevent the damage and latch-up of the CMOS LSI chips.

[5] The distance between COF edge and rib of BLU is suggested to be larger than 5mm, in order to prevent from damage on COF during module assembly.

[6] Do not design sharp-pointed structure / parting line / tooling gate on the COF position of plastic parts, because the burr will scrape the COF.

[7] If COF would be bended during module assembly, it is suggested not to locate the IC on the bending corner of COF.

[8] The gap between COF IC and any structure of BLU is suggested to be larger than 2mm, in order to prevent from damage on COF IC.

[9] Bezel opening must have no burr. Burr will scrape the panel surface.

[10] It is suggested that bezel of module and bezel of TV set can not press or touch the panel surface. It will make light leakage or scrape.

[11] When module used FFC / FPC, but no FFC / FPC to be attached in the open cell. Customer can refer the FFC / FPC drawing and buy it by self.

[12] The gap between Panel and any structure of Bezel is suggested to be larger than 2mm, in order to prevent from damage on Panel.

[13] Do not plug in or pull out the I/F connector while the module is in operation.

[14] Use a soft dry cloth without chemicals for cleaning, because the surface of polarizer is very soft and easily scratched.

[15] Moisture can easily penetrate into LCD module and may cause the damage during operation.

[16] When storing modules as spares for a long time, the following precaution is necessary.

   [16.1] Do not leave the module in high temperature, and high humidity for a long time. It is highly recommended to store the module with temperature from 0 to 35℃ at normal humidity without condensation.

   [16.2] The module shall be stored in dark place. Do not store the TFT-LCD module in direct sunlight or fluorescent light.

[17] When ambient temperature is lower than 10ºC, the display quality might be reduced.

[18] The peeling strength of COF is 200gf/cm.

[19] During module assembly process, the static electricity around the environment should be less than 300V.

PRODUCT SPECIFICATION

8.2 SAFETY PRECAUTIONS

[1] 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.

[2] After end of life of the open cell product, it is not harmful in case of normal operation and storage.

PRODUCT SPECIFICATION

9. DEFINITION OF LABELS

9.1 OPEN CELL LABEL

The barcode nameplate is pasted on each open cell as illustration for CMI internal control.

V460H1 –PE5   Rev. XX

X X X X X X X Y M D L N N N N
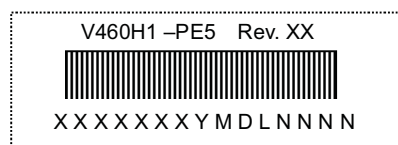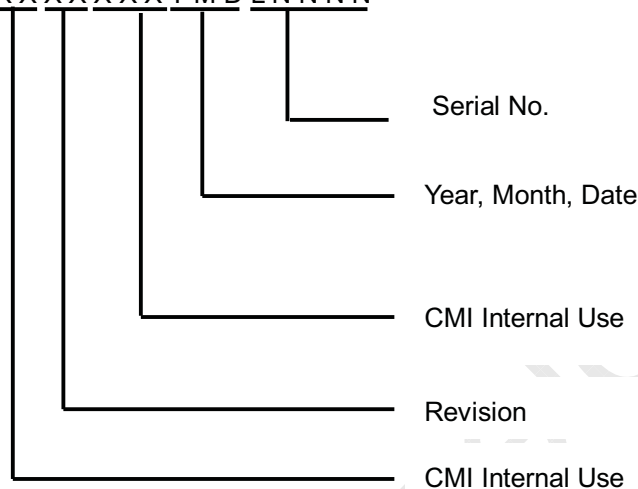
Figure.9-1 Serial No. Label on SPWB and Cell

Model Name: V460H1-PE5

Revision: Rev. XX, for example: A0, A1… B1, B2… or C1, C2…etc.

Serial ID: X X X X X X X Y M D L N N N N

Serial No.

Year, Month, Date

CMI Internal Use

Revision

CMI Internal Use

Serial ID includes the information as below:

Manufactured Date:

Year: 2010=0, 2011=1,2012=2…etc.

Month: 1~9, A~C, for Jan. ~ Dec.

Day: 1~9, A~Y, for 1st to 31st, exclude I ,O, and U.

Revision Code: Cover all the change

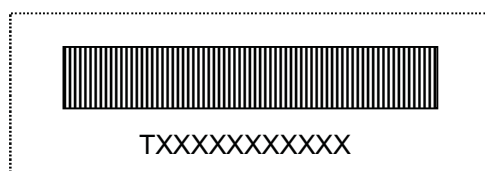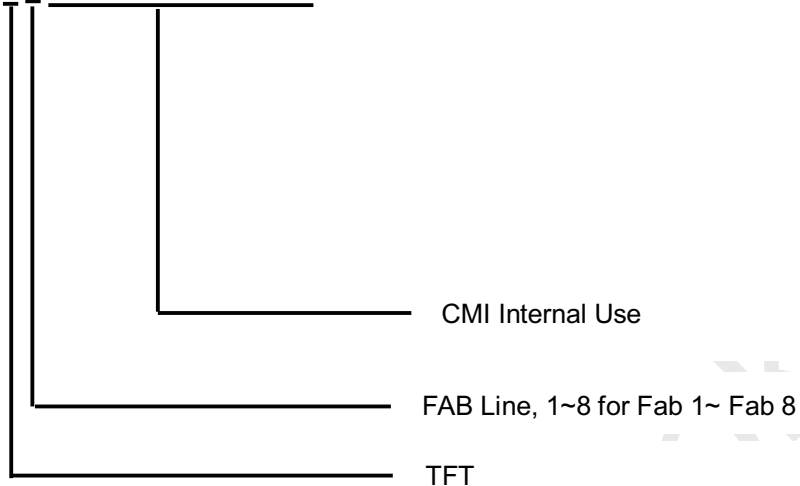Serial No.: Manufacturing sequence of product
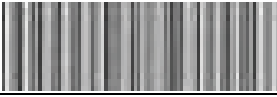
TXXXXXXXXXXX

Figure.9-2 Panel ID Label on Cell

Panel ID Label includes the information as below:

Panel ID: T X X X X X X X X X X X

CMI Internal Use

FAB Line, 1~8 for Fab 1~ Fab 8

TFT

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

PRODUCT SPECIFICATION

9.2 CARTON LABEL
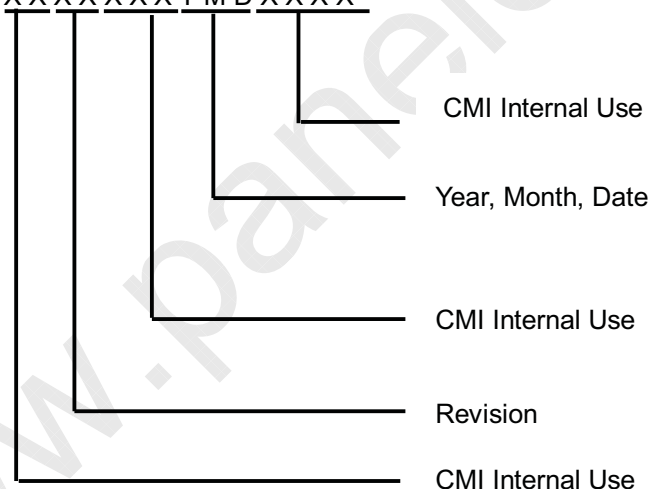
The barcode nameplate is pasted on each box as illustration, and its definitions are as following explanation.

```
                                              RoHS

    P.O. NO._____

    Parts ID._____

    Model Name   V460H1-PE5_____

                 ||||||||||||||||
    Carton ID._____  Quantities ___
            XXXXXXXYMDXXXX

              Made In Taiwan (Made In China)
```

Carton label includes the information as below:

    (a) Model Name: V460H1– PE5

    (b) Carton ID: X X X X X X X Y M D X X X X

        CMI Internal Use

        Year, Month, Date

        CMI Internal Use

        Revision

        CMI Internal Use

Serial ID includes the information as below:

Manufactured Date:

    Year: 2010=0, 2011=1,2012=2…etc.

    Month: 1~9, A~C, for Jan. ~ Dec.

    Day: 1~9, A~Y, for 1st to 31st, exclude I ,O, and U.

Revision Code: Cover all the change

    (c) Quantities: 8

PRODUCT SPECIFICATION

10. PACKAGING

10.1 PACKAGING SPECIFICATIONS

    (1) 8 LCD TV Panels / 1 Box

    (2) Box dimensions :1238 (L) X 842 (W) X 240(H)

    (3) Weight : approximately 38Kg (8 panels per box)

    (4) Desiccant (Drier): Weight 30g / 1 piece, Quantity 6 pcs, Cobalt chloride free.

10.2 PACKAGING METHOD

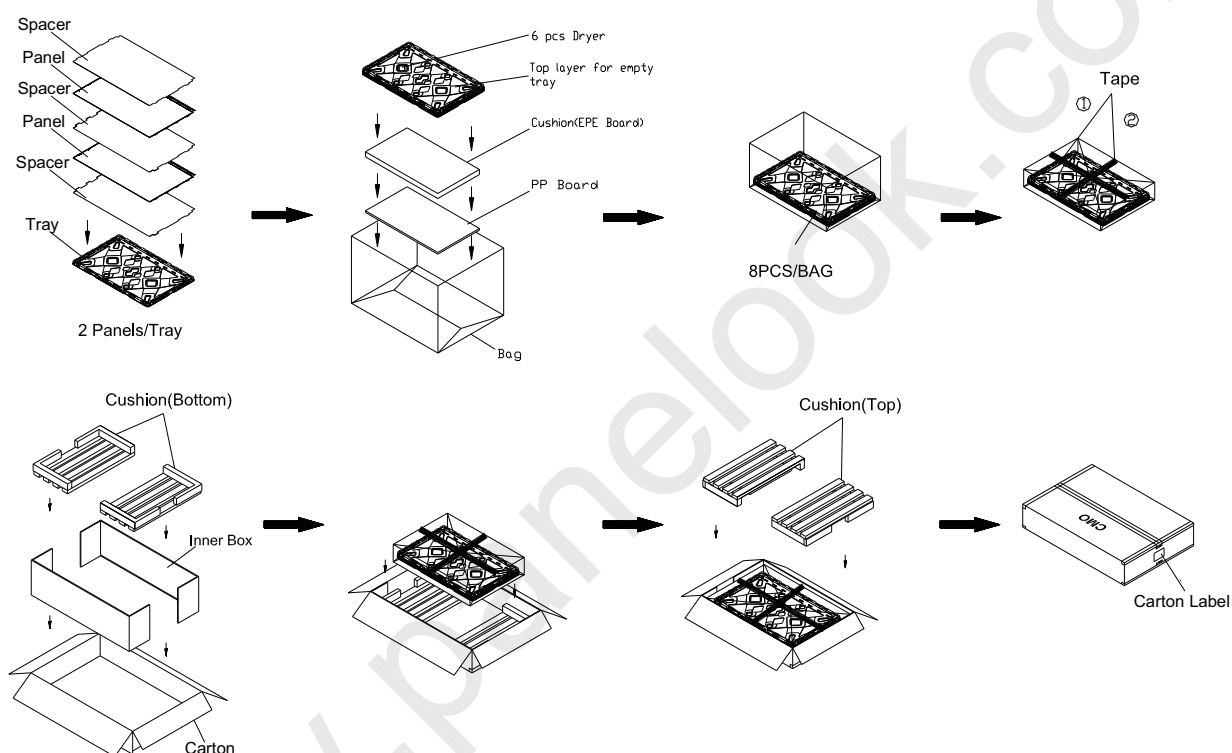   Figures 10-1 and 10-2 are the packing method
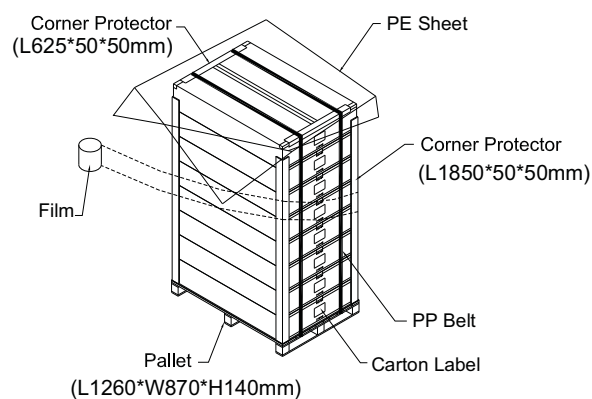

Figure.10-1 packing method

PRODUCT SPECIFICATION

Sea & Land Transportation

Corner Protector
(L625*50*50mm)

PE Sheet

Corner Protector
(L1850*50*50mm)

Film

PP Belt

Pallet
(L1260*W870*H140mm)

Carton Label

Air Transportation

Corner Protector
(L625*50*50mm)

PE Sheet

Corner Protector
(L1350*50*50mm)

Film

PP Belt

Pallet
(L1260*W870*H140mm)

Carton Label
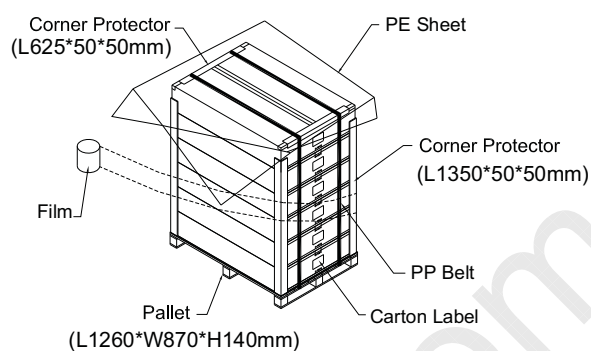
Figure.10-2 packing method

PRODUCT SPECIFICATION

奇美電子
CHIMEI INNOLUX

11. MECHANICAL CHARACTERISTIC

PRODUCT SPECIFICATION

NOTE:
1. FRONT SIDE GROUND AREA NEED CONTACT WITH BEZEL(CM Comment).
2. X BOARD COMPONENT MAX. HEIGHT IS 1.8 MM. NOT INCLUDE CONNECTOR AND VR.
3. VR LOCATION BEZEL NEED CUT A HOLE THAT ITS DIAMTER ABOUT IS 6.0MM.
4. ▨ : Cu Area
5. ▩ : COMPONENT HEIGHT LIMITAION A=0.0 mm.
6. ▨ : No Mount and NO Pattern Area.
7. The cell bending value was guaranteed before aging and remove the polarizer protect film