T370HW03 V9 Product Specification
Rev. 05

Model Name: T370HW03 V9

Issue Date : 2009/10/8

( )Preliminary Specifications
(＊)Final Specifications

Customer Signature	Date	AUO	Date
Approved By		Approval By PM Director Frank Hsu *Jacky Su*	
Note		Reviewed By RD Director Eugene CC Chen *Eugene Chen* Reviewed By Project Leader: Ebola Lee *Ebola lee* Prepared By PM: Shuzi Cheng *shuzi Cheng*	

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Record of Revision

Version	Date	Page	Description
0.0	2009/08/25		First release
0.1	2009/09/25		Modify electrical specification, add EDIC code and modify 2-D drawing
0.2	2009/10/08		Add screw diameter and inverter operating frequency. Modify External PMW min to 10%
0,3	2009/10/23		Update LCD power supply Input Voltage and add EDID timing spec.
0.4	2009/10/27		Modify signal timing specification
0.5	2010/01/06		Interface Connections (JEIDA mode only)

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1. General Description

This specification applies to the 37.0 inch Color TFT-LCD Module T370HW03 V9. This LCD module has a TFT active matrix type liquid crystal panel 1920*1080 pixels, and diagonal size of 37.0 inch. This module supports 1920*1080 HDTV mode (Non-interlace).

Each pixel is divided into Red, Green and Blue sub-pixels or dots which are arranged in vertical stripes. Gray scale or the brightness of the sub-pixel color is determined with a 8-bit gray scale signal for each dot.

The T370HW03 V9 has been designed to apply the 10-bit 2 channel LVDS interface method. It is intended to support displays where high brightness, wide viewing angle, high color saturation, and high color depth are very important.

The T370HW03 V9 model is RoHS verified which can be distinguished on panel label.

* General Information

Items	Specification	Unit	Note
Active Screen Size	37.01	inch	
Display Area	819.36 (H) x 460.89(V)	mm	
Outline Dimension	877(H) x 514.6(V) x 54.3(D)	mm	With inverter
Driver Element	a-Si TFT active matrix		
Display Colors	8 bit+2 FRC, 1.07B	Colors	
Number of Pixels	1920 x 1080	Pixel	
Pixel Pitch	0.42675(H) x 0.42675(W)	mm	
Pixel Arrangement	RGB vertical stripe		
Display Operation Mode	Normally Black		
Surface Treatment	Anti-Glare, 3H		Haze = 11

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2. Absolute Maximum Ratings

The followings are maximum values which, if exceeded, may cause faulty operation or damage to the unit

Item	Symbol	Min	Max	Unit	Conditions
Logic/LCD Drive Voltage	Vcc	-0.3	14	[Volt]	Note 1
Input Voltage of Signal	Vin	-0.3	4	[Volt]	Note 1
Operating Temperature	TOP	0	+50	[^{o}C]	Note 2
Operating Humidity	HOP	10	90	[%RH]	Note 2
Storage Temperature	TST	-20	+60	[^{o}C]	Note 2
Storage Humidity	HST	10	90	[%RH]	Note 2
Panel Surface Temperature	PST		65	[^{o}C]	Note 3

Note 1: Duration:50 msec.

Note 2 : Maximum Wet-Bulb should be 39℃ and No condensation.

The relative humidity must not exceed 90% non-condensing at temperatures of 40℃ or less. At temperatures greater than 40℃, the wet bulb temperature must not exceed 39℃.

Note 3: Surface temperature is measured at 50℃ Dry condition
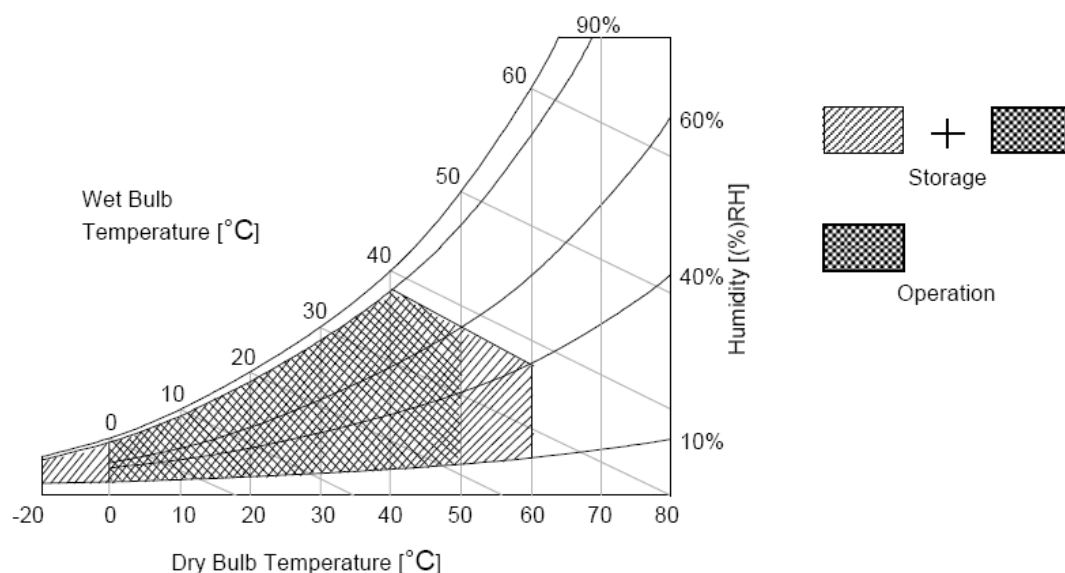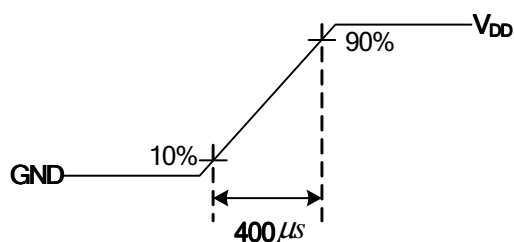
3. Electrical Specification

The T370HW03 V9 requires two power inputs. One is employed to power the LCD electronics and to drive the TFT array and liquid crystal. The second input power for the BLU, is to power inverter. (INV)
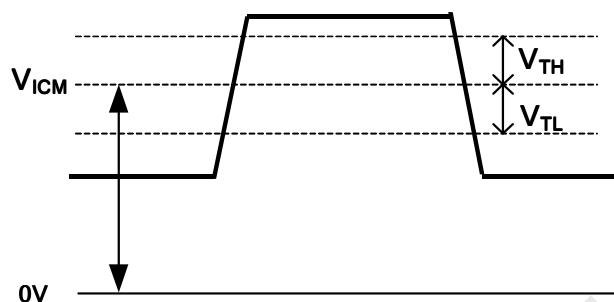
3.1 Electrical Characteristics

Parameter		Symbol	Value			Unit	Note
			Min.	Typ.	Max		
LCD							
Power Supply Input Voltage		V_{DD}	10.8	12	13.2	V_{DC}	1
Power Supply Input Current		I_{DD}	-	0.95	1.05	A	2
Power Consumption		P_C	-	11.4	12.6	Watt	2
Inrush Current		I_{RUSH}	-	-	4	A	3
LVDS Interface	Differential Input High Threshold Voltage	V_{TH}	--	--	+100	4	4
	Differential Input Low Threshold Voltage	V_{TL}	-100	--	--	4	4
	Input Common Mode Voltage	V_{ICM}	1.10	1.25	1.40	V_{DC}	4
CMOS Interface	Input High Threshold Voltage	V_{IH} (High)	2.4		3.3	V_{DC}	
	Input Low Threshold Voltage	V_{IL} (Low)	0		0.9	V_{DC}	
Backlight Power Consumption		P_{BL}	104	110	116	Watt	
Life Time			50000		--	Hours	8

Note :

1.   The ripple voltage should be controlled under 10% of V_{CC}

2.   Test Condition:
    (1) V_{DD} = 12.0V
    (2) Fv = Type Timing120Hz
    (3) F_{CLK} = Max freq.
    (4) Temperature = 25 ℃
    (5) Test Pattern : White Pattern

3.   Measurement condition : Rising time = 400us

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4. V_{ICM} = 1.25V

5. Do not attach a conducting tape to lamp connecting wire. If the lamp wire attach to conducting tape, TFT-LCD Module have a low luminance and the inverter has abnormal action because leakage current occurs between lamp wire and conducting tape.

6. The relative humidity must not exceed 80% non-condensing at temperatures of 40℃ or less. At temperatures greater than 40℃, the wet bulb temperature must not exceed 39℃. When operate at low temperatures, the brightness of CCFL will drop and the life time of CCFL will be reduced.

7. Specified values are for a single lamp only which is aligned horizontally. The lifetime is defined as the time which luminance of the lamp is 50% compared to its original value.
[Operating condition: Continuous operating at Ta = 25±2℃]

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3.2 Interface Connections (JEIDA mode only)

● LCD connector: JAE FI-RE51S-HF

● Mating connector:

PIN	Symbol	Description	PIN	Symbol	Description
1	V_{DD}	Power Supply, +12V DC Regulated	26	CH2_0+	LVDS Channel 2, Signal 0+
2	V_{DD}	Power Supply, +12V DC Regulated	27	CH2_1-	LVDS Channel 2, Signal 1-
3	V_{DD}	Power Supply, +12V DC Regulated	28	CH2_1+	LVDS Channel 2, Signal 1+
4	V_{DD}	Power Supply, +12V DC Regulated	29	CH2_2-	LVDS Channel 2, Signal 2-
5	V_{DD}	Power Supply, +12V DC Regulated	30	CH2_2+	LVDS Channel 2, Signal 2+
6	Reserved	AUO Internal Use Only	31	GND	Ground
7	GND	Ground	32	CH2_CLK-	LVDS Channel 2, Clock -
8	GND	Ground	33	CH2_CLK+	LVDS Channel 2, Clock +
9	GND	Ground	34	GND	Ground
10	CH1_0-	LVDS Channel 1, Signal 0-	35	CH2_3-	LVDS Channel 2, Signal 3-
11	CH1_0+	LVDS Channel 1, Signal 0+	36	CH2_3+	LVDS Channel 2, Signal 3+
12	CH1_1-	LVDS Channel 1, Signal 1-	37	Reserved	AUO Internal Use Only
13	CH1_1+	LVDS Channel 1, Signal 1+	38	Reserved	AUO Internal Use Only
14	CH1_2-	LVDS Channel 1, Signal 2-	39	GND	Ground
15	CH1_2+	LVDS Channel 1, Signal 2+	40	SCL	EEPROM Serial Clock
16	GND	Ground	41	SDA	EEPROM Serial Data
17	CH1_CLK-	LVDS Channel 1, Clock -	42	VSYNC	VSYNC output to system board
18	CH1_CLK+	LVDS Channel 1, Clock +	43	BUS_SW	BUS_SW (SONY internal use only)
19	GND	Ground	44	Panel_SEL	Panel_SEL (SONY internal use only)
20	CH1_3-	LVDS Channel 1, Signal 3-	45	SET_ON2	SET_ON2 (SONY internal use only)
21	CH1_3+	LVDS Channel 1, Signal 3+	46	SA_MODE	SA_MODE (SONY internal use only)
22	Reserved	AUO Internal Use Only	47	Panel_ON	Panel_ON (10kohm to GND)
23	Reserved	AUO Internal Use Only	48	FRC_RST	FRC_RST (SONY internal use only)
24	GND	Ground	49	HSYNC	HSYNC output to system board
25	CH2_0-	LVDS Channel 2, Signal 0-	50	TCON_RDY	Send TCON Ready to system
			51	FR_SEL	10kohm to GND

3.3 Signal Timing Specification

This is the signal timing required at the input of the user connector. All of the interface signal timing should be satisfied with the following specifications for its proper operation.

Signal	Item	Symbol	Min.	Typ.	Max	Unit
Vertical Section	Period	T_V	-	1134	-	T_H
	Active	T_{DISP} (V)		1080		T_H
	Blanking	T_{BLK} (V)	-	54	-	T_H
	Front porch	Tfp(V)	-	34	-	T_H
	Back porch	Tbp(V)	-	**16**	-	T_H
	V_sync	TVsync_wdth	-	**4**	-	T_H
	Polarity	POL (v)		**+**		
Horizontal Section	Period	T_H	-	1092	-	T_{CLK}
	Active	T_{DISP} (H)		960		T_{CLK}
	Blanking	T_{BLK} (H)	-	132	-	T_{CLK}
	Front porch	Tfp(H)	-	16	-	T_{CLK}
	Back porch	T(H)	-	100	-	T_{CLK}
	H_sync	THsync_wdth	-	16	-	T_{CLK}
	Polarity	POL (v)		**+**		
LVDS Clock	Period	T_{CLK}	-	13.47	-	ns
	Frequency	F_{CLK}	-	74.23	-	MHz
Vertical Frequency	Frequency	F_V	-	59.94	-	Hz
Horizontal Frequency	Frequency	F_H	-	67.97	-	KHz

Notes:

(1) Display position is specific by the rise of DE signal only.
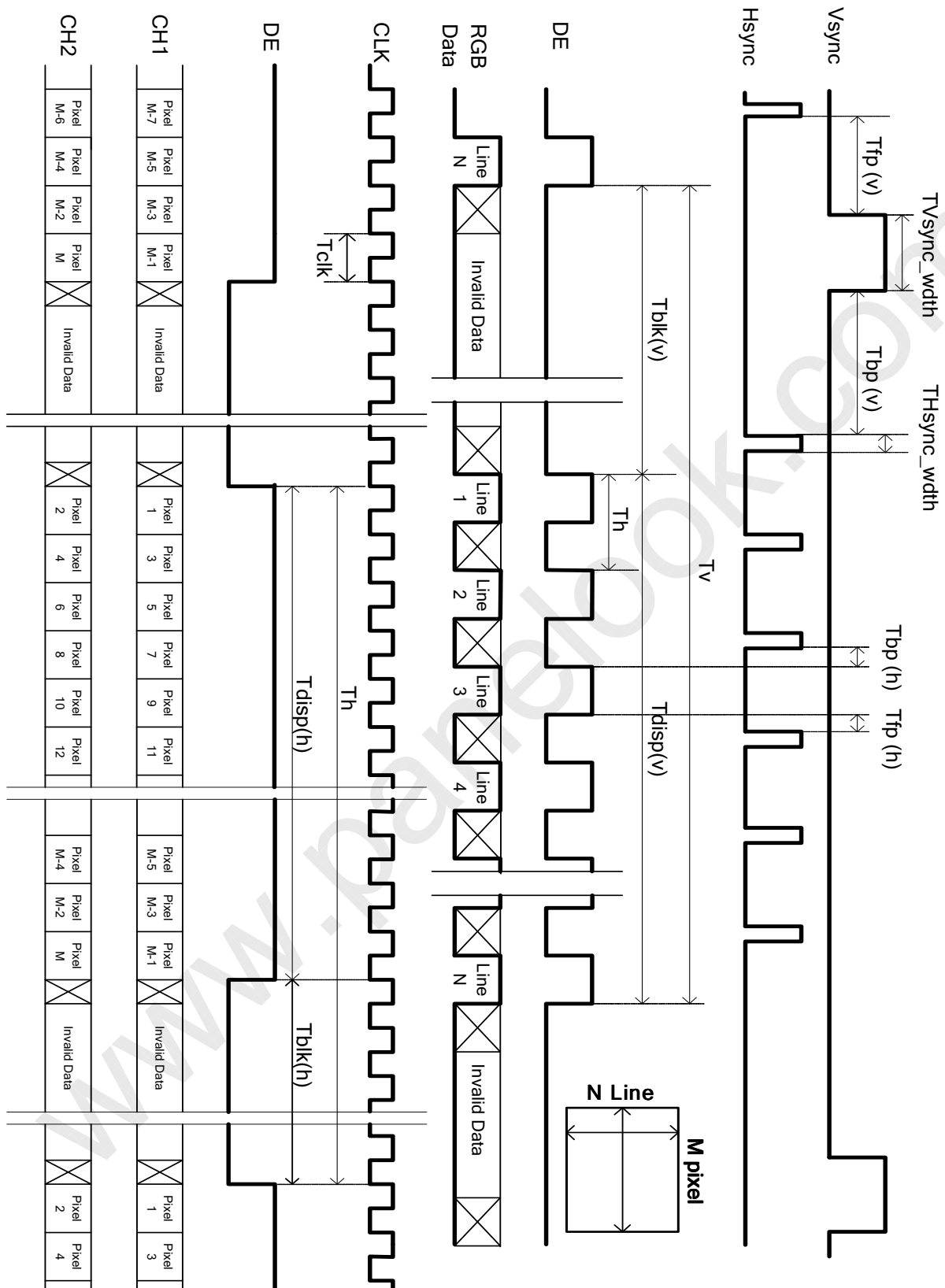
Horizontal display position is specified by the rising edge of 1st DCLK after the rise of 1st DE, is displayed on the left edge of the screen.

(2) Vertical display position is specified by the rise of DE after a "Low" level period equivalent to eight times of horizontal period. The 1st data corresponding to one horizontal line after the rise of 1st DE is displayed at the top line of screen.
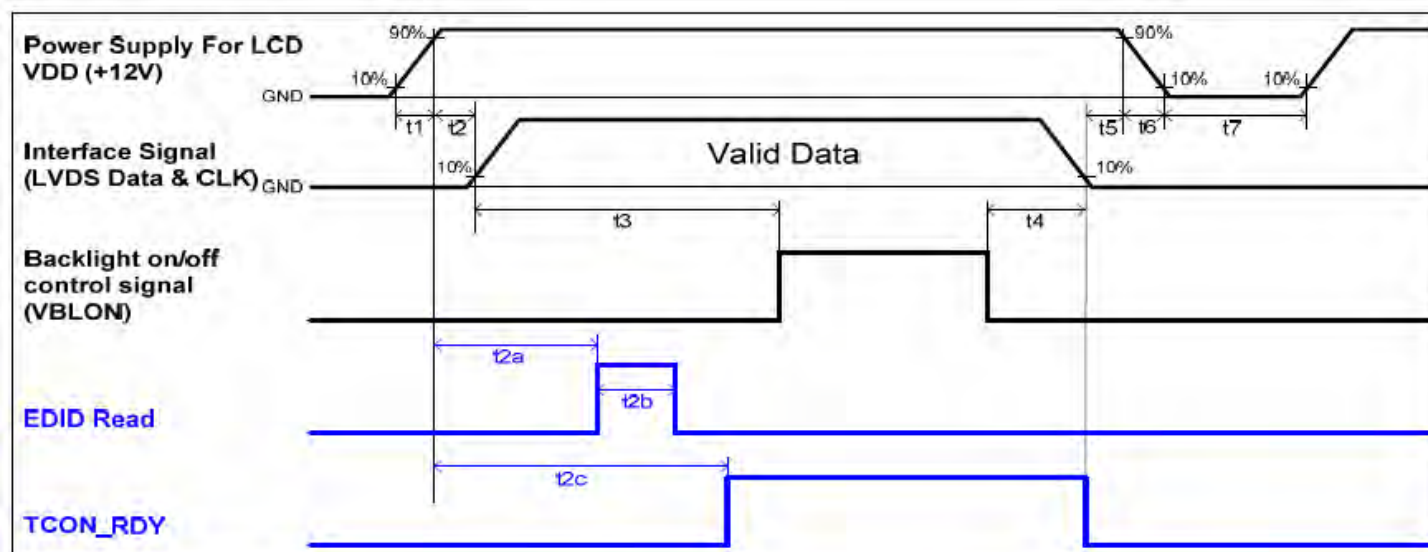
(3) If a period of DE "High" is less than 1920 DCLK or less than 1080 lines, the rest of the screen displays black.

(4) The display position does not fit to the screen if a period of DE "High" and the effective data period do not synchronize with each other.

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3.4 Signal Timing Waveforms

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3.6 Power Sequence for LCD

Parameter	Values			Unit
	Min.	Type.	Max.	
t1	0.4	---	30	ms
t2	0.1	---	---	ms
t3	300	---	---	ms
t4	0 [*1]	---	---	ms
t5	0	---	---	ms
t6	---	---	--- [*2]	ms
t7	500	---	---	ms
t2a	10	---	100	ms
t2b	0 [*3]	---	100 [*3]	ms
t2c	10	---	---	ms

Note:

(1) T4=0 : concern for residual pattern before BLU turn off.

(2) T6 : voltage of VDD must decay smoothly after power-off. (customer system decide this value)

(3) T2b : customer decide this value

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3.7 Backlight Specification (Inverter Type)

The backlight unit contains 10-I type CCFLs (Cold Cathode Fluorescent Lamp)

3.7.1 Electrical specification

	Item	Symbol		Condition	Spec			Unit	Note
					Min	Typ	Max		
1	Input Voltage	VDDB		-	21.6	24	26.4	VDC	-
2	Input Current	I_{DDB}		VDDB=24V	-	4.58	4.81	ADC	1
3	Input Power	P_{DDB}		VDDB=24V	104	110	116	W	1
4	Inrush Current	I_{RUSH}		VDDB=24V	-	-	7.2	ADC	2
5	Operating Frequency	FBL		VDDB=24V	42	44	46	KHz	
6	On/Off control voltage	V_{BLON}	ON	VDDB=24V	2	-	5	VDC	-
			OFF		0	-	0.8		-
7	On/Off control current	I_{BLON}		VDDB=24V	-	-	1.5	mA	-
8	Dimming Control Voltage	V_DIM	MAX	VDDB=24V	0	-	3.3	VDC	-
			MIN		-	0	-	VDC	-
9	Dimming Control Current	I_DIM		VDDB=24V	-	-	2	mADC	-
10	Internal Dimming Ratio	DIM_R		VDDB=24V	10		100	%	3
11	External PWM Control Voltage	V_EPWM	MAX	VDDB=24V	2	-	3.3	VDC	-
			MIN	VDDB=24V	0	-	0.8		-
12	External PWM Control Current	I_EPWM		VDDB=24V	-	-	2	mADC	-
13	External PWM Duty ratio	D_EPWM		VDDB=24V	10	-	100	%	3
14	External PWM Frequency	F_EPWM		VDDB=24V	140	180	240	Hz	-

Note 1 : Dimming ratio= 100% (MAX)（Ta=25±5℃, Turn on for 45minutes）
Note 2: Measurement condition Rising time = 20ms (VDDB : 10%~90%);
Note 3: (Sony/LGE) <40" model

For External PWM application, $\geqq$5% dimming is function well and no backlight shutdown.

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3.7.2 Input Pin Assignment

Inverter Connector: CI0114M1HRL-NH (Cvilux)

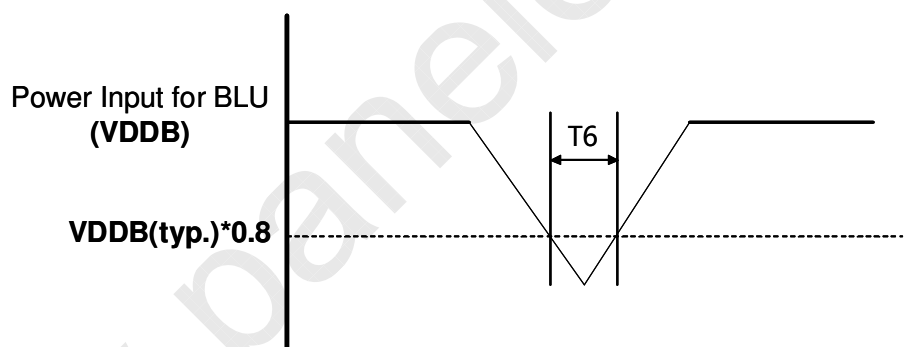| Pin	Symbol	Description
1	VDDB	Operating Voltage Supply, +24V DC regulated
2	VDDB	Operating Voltage Supply, +24V DC regulated
3	VDDB	Operating Voltage Supply, +24V DC regulated
4	VDDB	Operating Voltage Supply, +24V DC regulated
5	VDDB	Operating Voltage Supply, +24V DC regulated
6	BLGND	Ground and Current Return
7	BLGND	Ground and Current Return
8	BLGND	Ground and Current Return
9	BLGND	Ground and Current Return
10	BLGND	Ground and Current Return
11	DET	BLU status detection: Normal : 0~0.8V ; Abnormal : Open collector
12	VBLON	BLU On-Off control: BL On: High/Open (3.3V~5.5V) BL off : Low (0~0.8V/GND)
13	VDIM	Internal PWM (0~3.3V for 10~100% Duty, open for 100%) < NC ; at External PWM mode>
14	PDIM	External PWM (10%~100% Duty, open for 100%) < NC ; at Internal PWM mode>
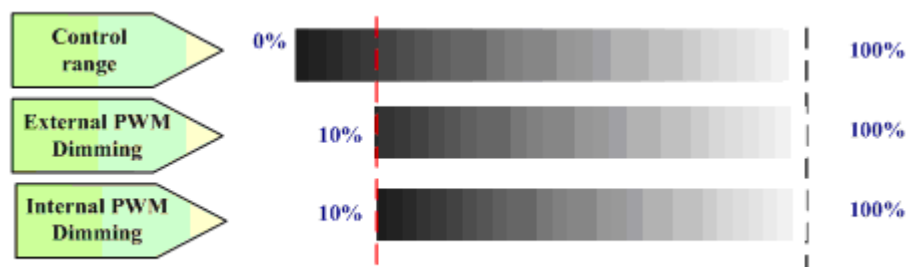
PWM Dimming : include Internal and External PWM Dimming

IF External PWM function includes 10% dimming ratio. Judge condition as below:
(1) Backlight module must be lighted ON normally.
(2) All protection function must work normally.
(3) Uniformity and flicker could NOT be guaranteed

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3.7.3 Power Sequence for Inverter

24V(typ.)

90%　　　　　　　　　　　　　　　　　　90%

Power Input for BLU
(VDDB)

10%

T1　T2　　　　　　　　　　　T5

Dimming Control Signal
(V_IPWM,V_EPWM)

T3　　　　　　　　　　T4

BLU On/Off Enable
(VBLON)
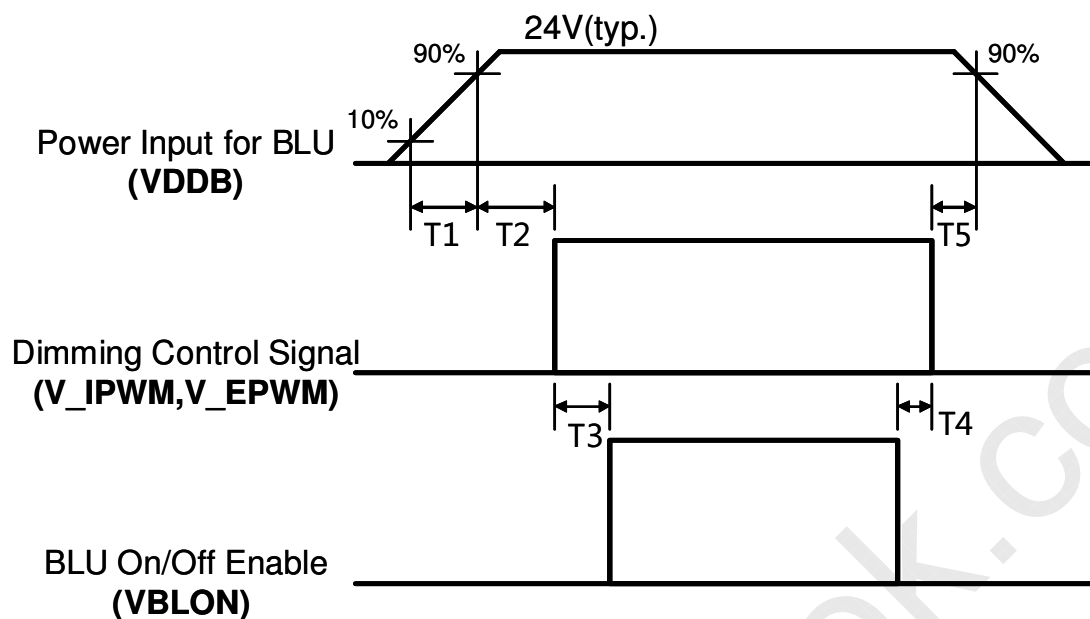
Dip condition for Inverter

Power Input for BLU
(VDDB)

T6

VDDB(typ.)*0.8

Parameter	Value			Units
	Min	Typ	Max	
T1	20	-	-	ms
T2	500	-	-	ms
T3	200			ms
T4	0	-	-	ms
T5	1	-	-	ms
T6	-	-	10	ms

4. Optical Specification

Optical characteristics are determined after the unit has been 'ON' and stable for approximately 45 minutes in a dark environment at 25°C. The values specified are at an approximate distance 50cm from the LCD surface at a viewing angle of φ and θ equal to 0°.

Fig.1 presents additional information concerning the measurement equipment and method.
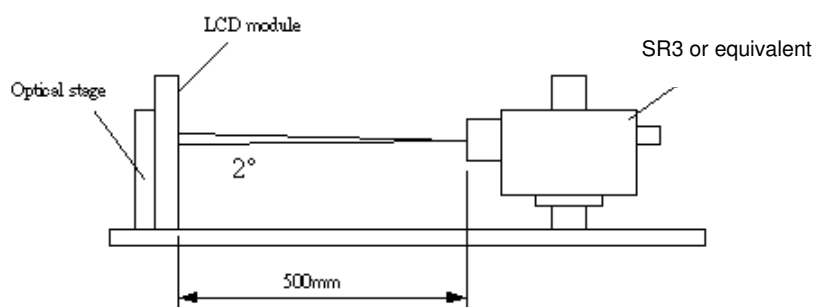
Parameter		Symbol	Values			Unit	Notes
			Min.	Typ.	Max		
Contrast Ratio		CR	4000	5000			1
Surface Luminance (White)		L_{WH}	360	450		cd/m^2	2
Luminance Variation		$\delta_{WHITE(9P)}$	--	--	1.3		3
Response Time (G to G)		Tγ	--	5.5	--	Ms	4
Color Gamut		NTSC		72		%	
Color Coordinates							
	Red	R_X		0.640			
		R_Y		0.330			
	Green	G_X		0.29			
		G_Y	Typ.-0.03	0.6	Typ.+0.03		
	Blue	B_X		0.144			
		B_Y		0.060			
	White	W_X		0.280			
		W_Y		0.290			
Viewing Angle							5
	x axis, right(φ=0°)	θ_r	--	89	--	degree	
	x axis, left(φ=180°)	θ_l	--	89	--	degree	
	y axis, up(φ=90°)	θ_u	--	89	--	degree	
	y axis, down (φ=270°)	θ_d	--	89	--	degree	

Note:

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1. Contrast Ratio (CR) is defined mathematically as:

$$\text{Contrast Ratio} = \frac{\text{Surface Luminance of } L_{on5}}{\text{Surface Luminance of } L_{off5}}$$

2. Surface luminance is luminance value at point 5 across the LCD surface 50cm from the surface with all pixels displaying white. From more information see FIG 2. When lamp current I_H = 11mA. L_{WH}=Lon5 where Lon5 is the luminance with all pixels displaying white at center 5 location.

3. The variation in surface luminance, δWHITE is defined (center of Screen) as:

   $\delta_{WHITE(9P)}$= Maximum(L_{on1}, L_{on2},…,L_{on9})/ Minimum(L_{on1}, L_{on2},…L_{on9})

4. Response time T_γ is the average time required for display transition by switching the input signal for five luminance ratio (0%,25%,50%,75%,100% brightness matrix) and is based on F_v=60Hz to optimize.

Measured Response Time		Target				
		0%	**25%**	**50%**	**75%**	**100%**
Start	**0%**		0% to 25%	0% to 50%	0% to 75%	0% to 100%
	25%	25% to 0%		25% to 50%	25% to 75%	25% to 100%
	50%	50% to 0%	50% to 25%		50% to 75%	50% to 100%
	75%	75% to 0%	75% to 25%	75% to 50%		75% to 100%
	100%	100% to 0%	100% to 25%	100% to 50%	100% to 75%	

5. Viewing angle is the angle at which the contrast ratio is greater than 10. The angles are determined for the horizontal or x axis and the vertical or y axis with respect to the z axis which is normal to the LCD surface. For more information see FIG 3.

FIG. 2 Luminance
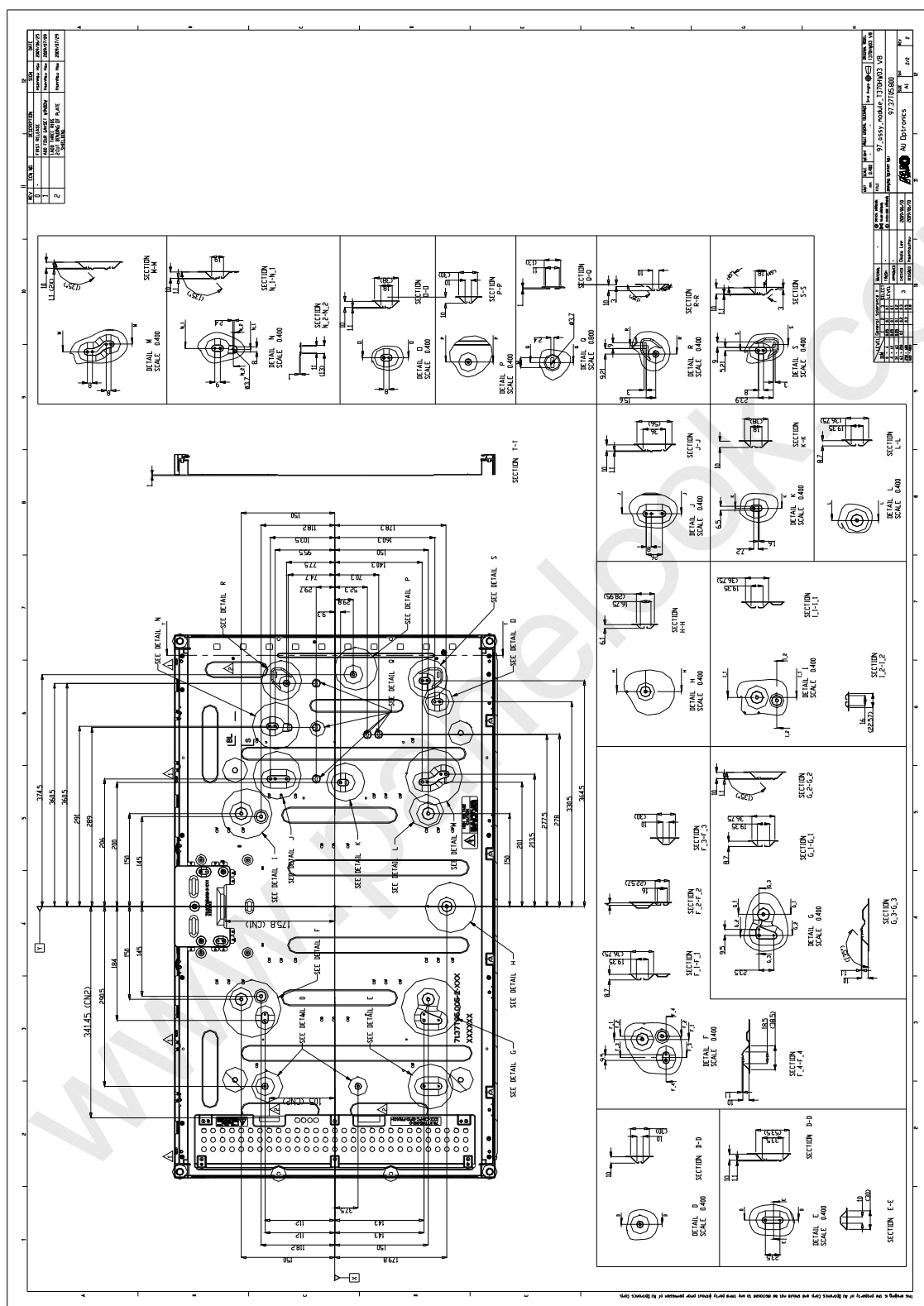
FIG.3 Viewing Angle

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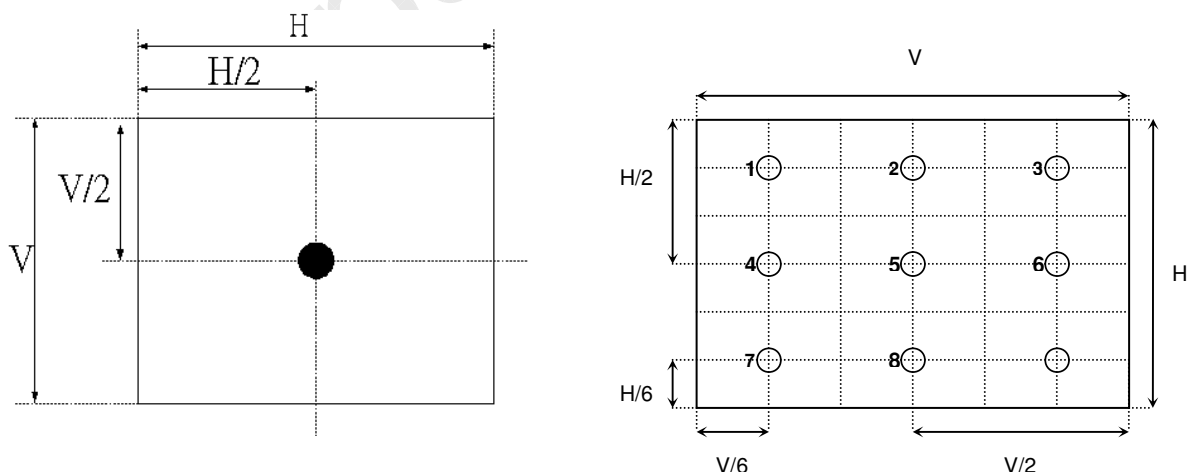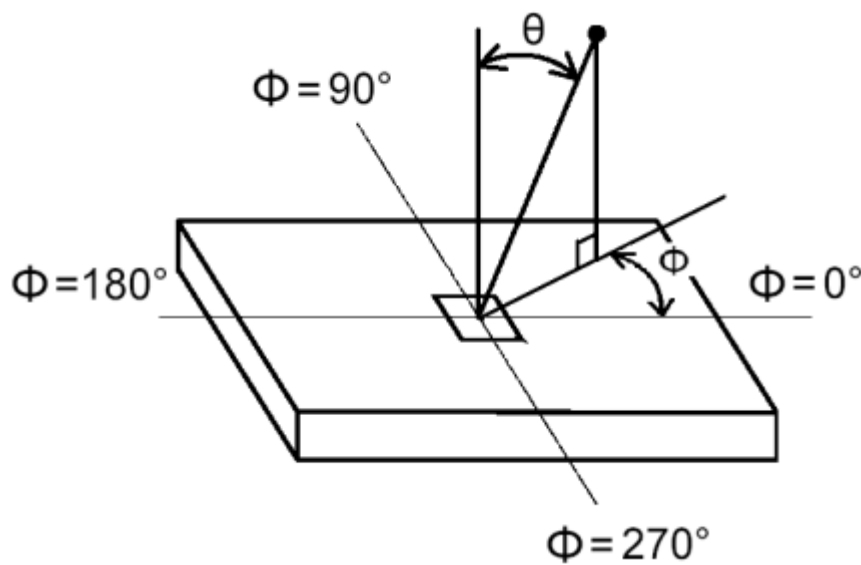
5. Mechanical Characteristics

The contents provide general mechanical characteristics for the model T370HW03 V9. In addition the figures in the next page are detailed mechanical drawing of the LCD.

Outline Dimension	Horizontal	877.0 mm
	Vertical	514.6mm
	Depth	54.3 mm(with inverter)
Bezel Opening	Horizontal	828 mm
	Vertical	469.8 mm
Active Display Area	Horizontal	819.36 mm
	Vertical	460.89 mm
Weight	6800 g (Typ.)	
Surface Treatment	Anti-Glare, 3H	

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Front View

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Back View

6. Reliability Test Items

	Test Item	Q'ty	Condition
1	High temperature storage test	3	60℃, 300hrs
2	Low temperature storage test	3	-20℃, 300hrs
3	High temperature operation test	3	50℃, 300hrs
4	Low temperature operation test	3	-5℃, 300hrs
5	Vibration test (non-operation)	3	Wave form: random Vibration level: 1.5G RMS Bandwidth: 10-300Hz, Duration: X, Y, Z 30min One time each direction
6	Shock test (non-operation)	3	Shock level: 50G Waveform: half sin wave, 11ms Direction: ±X, ±Y, ±Z, One time each direction
7	Vibration test (With carton)	5	Random wave (1.5G RMS, 10-200Hz) 30mins/ Per each X,Y,Z axes
8	Drop test (With carton)	5	Height: 30.5m 1 corner, 3 edges, 6 surfaces (ASTMD4169-I)

7. International Standard

7.1 Safety

(1) UL 60950-1, UL 60065; Standard for Safety of Information Technology Equipment Including electrical Business Equipment.

(2) IEC 60950-1 : 2001, IEC 60065:2001 ; Standard for Safety of International Electrotechnical Commission

(3) EN 60950 : 2001+A11, EN 60065:2002+A1:2006; European Committee for Electrotechnical Standardization (CENELEC), EUROPEAN STANDARD for Safety of Information Technology Equipment Including Electrical Business Equipment.

7.2 EMC

(1) ANSI C63.4 "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electrical Equipment in the Range of 9kHz to 40GHz. "American National standards Institute(ANSI), 1992

(2) C.I.S.P.R "Limits and Methods of Measurement of Radio Interface Characteristics of Information Technology Equipment." International Special committee on Radio Interference.

(3) EN 55022 "Limits and Methods of Measurement of Radio Interface Characteristics of Information Technology Equipment." European Committee for Electrotechnical Standardization. (CENELEC), 1998

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8. Packing

8-1 DEFINITION OF LABEL:

A. Panel Label:

xxxxxxxxxxxx-xxxx

Panel Unique ID

→ **AUO Internal Use**

AU Optronics

xxxxxxxxxxxx-xxxx

xxxxxxxxxxxxxxxxxxxxx

XXXXX　　**Model NO: T370HW03 V.9**　　　　　**XXXXXXX**

Manufactured XX/XX　　　　　　　　**MADE IN XXXXX**

AUO Internal Use　　　　　　**Week**　　　　　　　　**Factory Location**

　　　　　　　　Year　　　**AUO Internal Use**
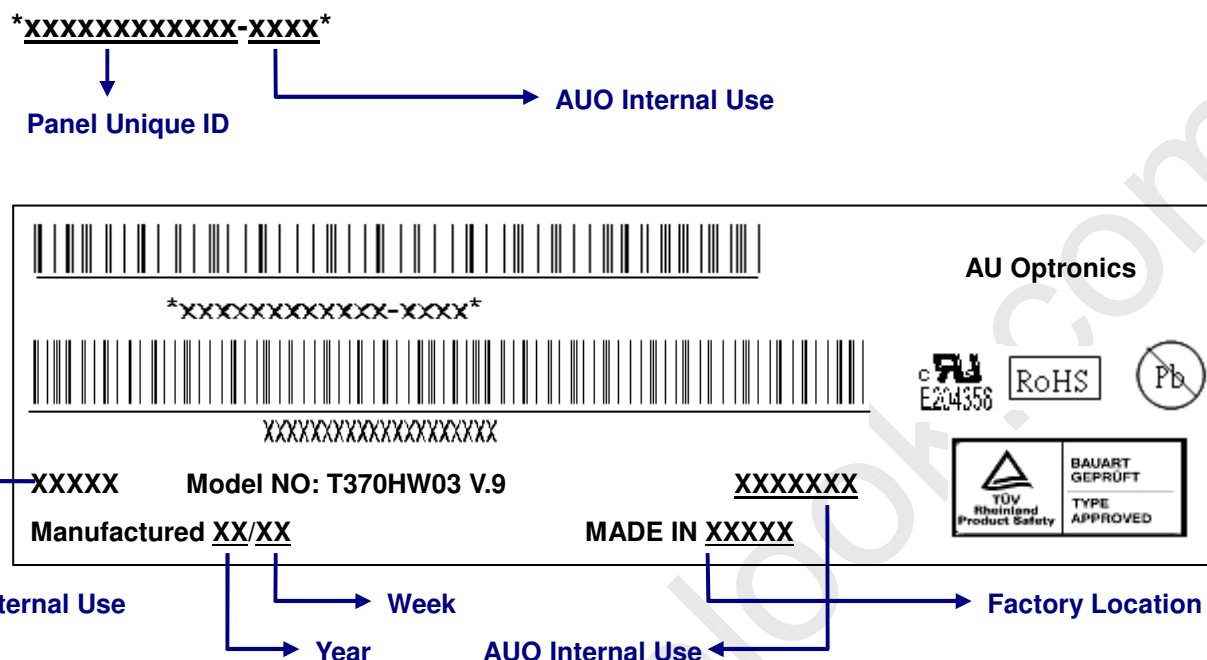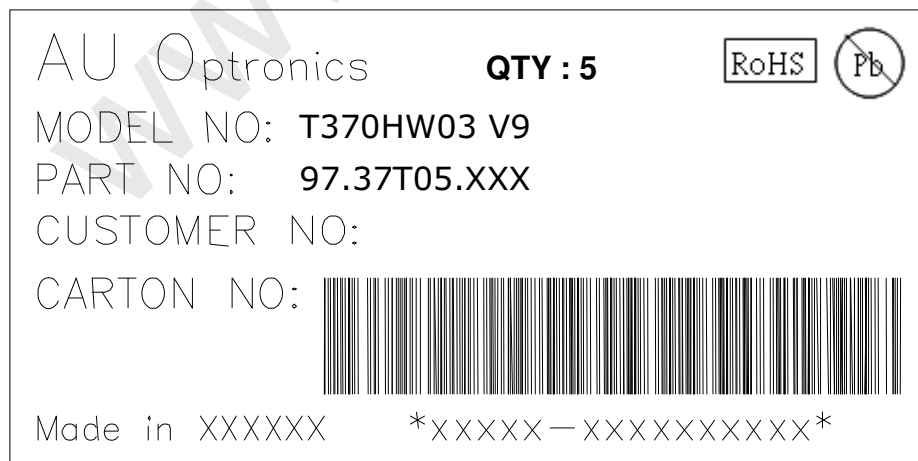
Green mark description

(1) For Pb Free Product, AUO will add   for identification.

(2) For RoHs compatible products, AUO will add RoHS for identification.

Note: The green Mark will be present only when the green documents have been ready by AUO internal green

team. (definition of green design follows the AUO green design checklist.)

B. Carton Label:

AU Optronics　　**QTY : 5**　　RoHS Pb

MODEL NO: T370HW03 V9

PART NO: 97.37T05.XXX

CUSTOMER NO:

CARTON NO:

Made in XXXXXX   *xxxxx－xxxxxxxxxx*

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8-2 PACKING METHODS:

Cushion 84.37T04.061

Carton 81.37T04.001

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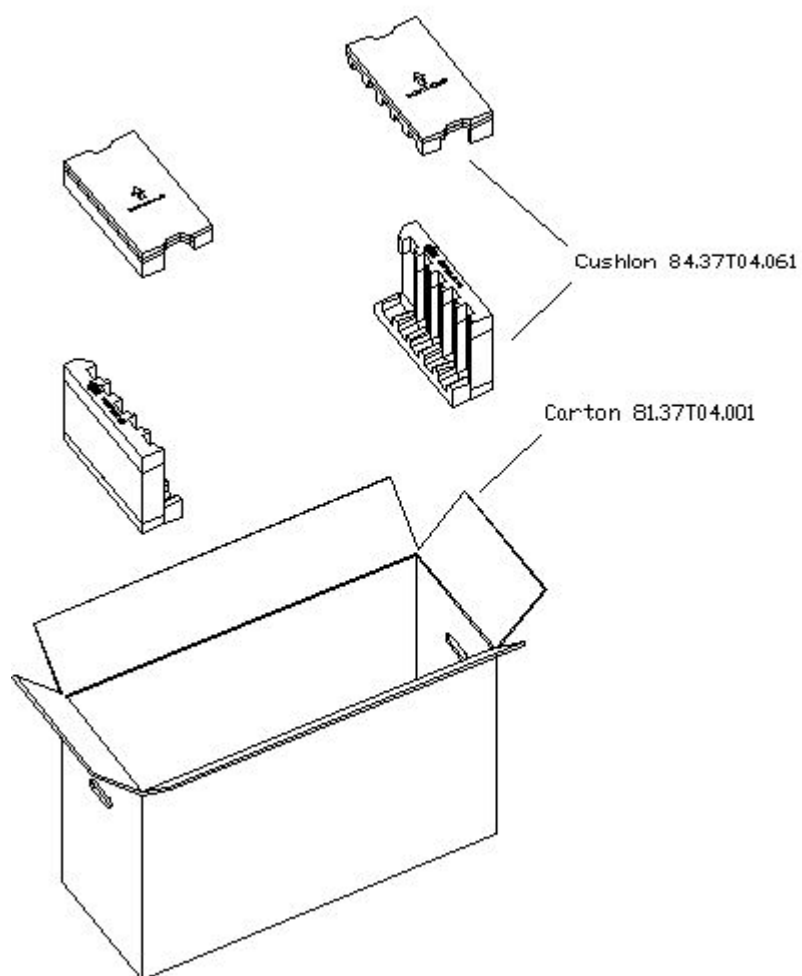
8-3 Pallet and Shipment Information

	Item	Specification			Packing
		Qty.	Dimension	Weight (kg)	Remark
1	Packing BOX	5 pcs/box	965(L)mm*375(W)mm*610(H)mm	36	
2	Pallet	1	1140(L)mm*980(W)mm*132(H)mm	15	
3	Boxes per Pallet	6 boxes/Pallet (By Air) ; 9 Boxes/Pallet (By Sea)			
4	Panels per Pallet	30 pcs/pallet(By Air) ; 45 Boxes/Pallet (By Sea)			
	Pallet after packing	24 (by Air) 36(by Sea)	1140(L)mm*980(W)mm*1352(H)mm (by Air) 1140(L)mm*980(W)mm*2094(H)mm (by Sea)	285 (by Air) 435 (by Sea)	

Corner angle   Moisture-proof film

Stretch film

Label   PET band

Corner angle

Pallet
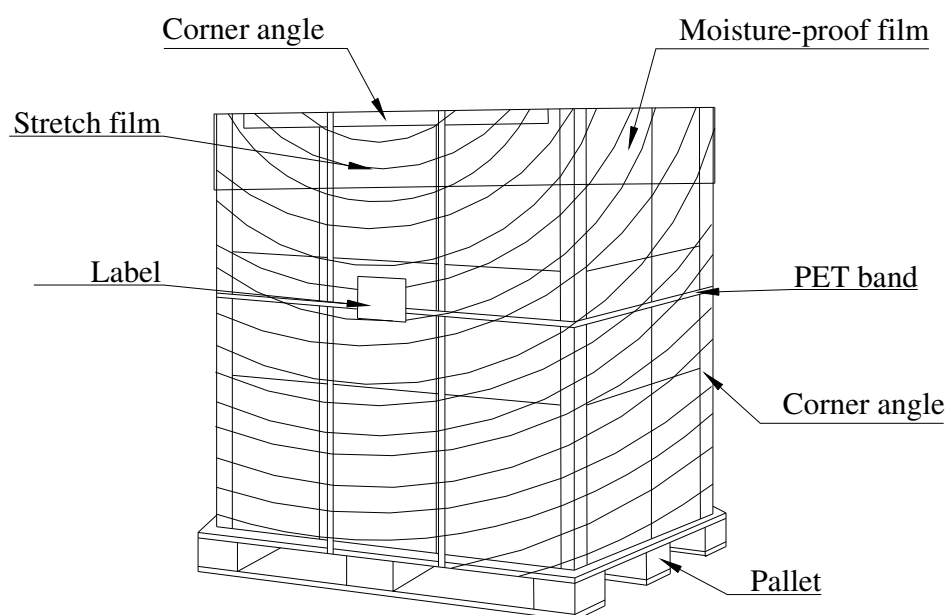
8. PRECAUTIONS

Please pay attention to the followings when you use this TFT LCD module.

9-1 MOUNTING PRECAUTIONS

(1) You must mount a module using holes arranged in four corners or four sides.

(2) You should consider the mounting structure so that uneven force (ex. twisted stress) is not applied to module. And the case on which a module is mounted should have sufficient strength so that external force is not transmitted directly to the module.

(3) Please attach the surface transparent protective plate to the surface in order to protect the polarizer. Transparent protective plate should have sufficient strength in order to the resist external force.

(4) You should adopt radiation structure to satisfy the temperature specification.

(5) Acetic acid type and chlorine type materials for the cover case are not desirable because the former generates corrosive gas of attacking the polarizer at high temperature and the latter cause circuit broken by electro-chemical reaction.

(6) Do not touch, push or rub the exposed polarizer with glass, tweezers or anything harder than HB pencil lead. And please do not rub with dust clothes with chemical treatment. Do not touch the surface of polarizer for bare hand or greasy cloth. (Some cosmetics are detrimental to the polarizer.)

(7) When the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks with petroleum benzene. Normal-hexane is recommended for cleaning the adhesives used to attach front/ rear polarizer. Do not use acetone, toluene and alcohol because they cause chemical damage to the polarizer.

(8) Wipe off saliva or water drops as soon as possible. Their long time contact with polarizer causes deformations and color fading.

(9) Do not open the case because inside circuits do not have sufficient strength.

9-2 OPERATING PRECAUTIONS

(1) The device listed in the product specification sheets was designed and manufactured for TV application

(2) The spike noise causes the mis-operation of circuits. It should be lower than following voltage: V=±200mV(Over and under shoot voltage)

(3) Response time depends on the temperature. (In lower temperature, it becomes longer..)

(4) Brightness of CCFL depends on the temperature. (In lower temperature, it becomes lower.) And in lower temperature, response time (required time that brightness is stable after turned on) becomes longer.

(5) Be careful for condensation at sudden temperature change. Condensation makes damage to polarizer or electrical contacted parts. And after fading condensation, smear or spot will occur.

(6) When fixed patterns are displayed for a long time, remnant image is likely to occur.

(7) Module has high frequency circuits. Sufficient suppression to the electromagnetic interference shall

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be done by system manufacturers. Grounding and shielding methods may be important to minimize the interface.

9-3 ELECTROSTATIC DISCHARGE CONTROL

Since a module is composed of electronic circuits, it is not strong to electrostatic discharge. Make certain that treatment persons are connected to ground through wristband etc. And don't touch interface pin directly.

9-4 PRECAUTIONS FOR STRONG LIGHT EXPOSURE

Strong light exposure causes degradation of polarizer and color filter.

9-5 STORAGE

When storing modules as spares for a long time, the following precautions are necessary.

(1) Store them in a dark place. Do not expose the module to sunlight or fluorescent light. Keep the temperature between 5℃ and 35℃ at normal humidity.

(2) The polarizer surface should not come in contact with any other object. It is recommended that they be stored in the container in which they were shipped.

9-6 HANDLING PRECAUTIONS FOR PROTECTION FILM

(1) The protection film is attached to the bezel with a small masking tape. When the protection film is peeled off, static electricity is generated between the film and polarizer. This should be peeled off slowly and carefully by people who are electrically grounded and with well ion-blown equipment or in such a condition, etc.

(2) When the module with protection film attached is stored for a long time, sometimes there remains a very small amount of glue still on the bezel after the protection film is peeled off.

(3) You can remove the glue easily. When the glue remains on the bezel or its vestige is recognized, please wipe them off with absorbent cotton waste or other soft material like chamois soaked with normal-hexane.

Item	Description	Value
Vendor code	Vendor Code 0 : - 1 : AUO	1
Panel Inch	Panel Inch, setting function: 21.6inch= 22 / 26inch= 26 32inch= 32 / 37inch= 37 40inch= 40 / 42inch= 42 46inch= 46 / 52inch= 52	37
H.Resolution	Panel Horizontal resolution information. 16bit : 0x02 = MS Byte, 0x03 = LS Byte (1) Horizontal resolution = 3840 (2) Horizontal resolution = 1920 (3) Horizontal resolution = 1366	1920
V.Resolution	Panel Vertical Resolution information: 16bit : 0x04 = MS Byte, 0x05 = LS Byte (1) Vertical resolution = 2160 (2) Vertical resolution = 1080 (3) Vertical resolution = 768	1080
V. Frequency	Panel Vertical frequency information. 0: 50Hz / 60Hz 1: 100Hz / 120Hz 2: 200Hz / 240Hz	1
Data format	Panel LVDS Data format information. 0: 6bit / 1: 8bit 2: 10bit / 3: 12bit 4: 14bit / 5: 16bit	2

Part Number *Note(1)	Panel maker's version information.
	@ Example: T260XW05 V0
	Item: (0), (1), (2), (3), (4), (5), (6), (7), (8), (9), (10), (11)
	    "T", "2", "6", "0", "X", "W", "0", "5", " ", "V", "0", " ? "
	
	Ps: Item[11]: "?" , default is "空格欄".
	    Setting value refer to "Note:(1)", and
	    confirm with AUO: FAE and PM
	
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
	T 3 7 0 H W 0 3 V 9
		Capitalization

i. EMI specification

Model name: T370HW03 V9

Item	Min	Typ	Max	Unit
EMI level (Note)	---	---	-6	dB(μV/m)
SSCG	---	350	---	ps

Note:
甲、Criteria: CISPR22
乙、Signal generator: PSG400 (Sony EMCS)
丙、EMI site: Sony EMCS Ichinomiya Tec. or using correlation value
丁、Find result should be checked by connecting with TV-set