

- () Preliminary Specifications(V) Final Specifications

Module	13.3"(13.25") HD 16:9 Color TFT-LCD with LED Backlight design
Model Name	B133XW04 V1 (H/W:0A)
Note (🗭)	LED Backlight with driving circuit design

Customer Date	e	Approved by	Date
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Note: This Specification is subject to divide without notice.	change	NBBU Market AU Optronics	ting Division s corporation



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Record of Revision

Ver	sion and Date	Page	Old description	New Description	Remark
0.1	2009/12/03	All	First Edition for Customer		
1.0	2010/04/20	All		Final Edition	



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1. Handling Precautions

- 1) Since front polarizer is easily damaged, pay attention not to scratch it.
- 2) Be sure to turn off power supply when inserting or disconnecting from input connector.
- 3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
- 4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
- 5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
- 6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
- 7) Do not open nor modify the Module Assembly.
- 8) Do not press the reflector sheet at the back of the module to any directions.
- 9) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.
- 11)After installation of the TFT Module into an enclosure (Notebook PC Bezel, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
- 12) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.
- 13) Disconnecting power supply before handling LCD modules, it can prevent electric shock, DO NOT TOUCH the electrode parts, cables, connectors and LED circuit part of TFT module that a LED light bar build in as a light source of back light unit. It can prevent electrostic breakdown.



2. General Description

B133XW04 V1 is a Color Active Matrix Liquid Crystal Display composed of a TFT LCD panel, a driver circuit, and LED backlight system. The screen format is intended to support the 16:9 HD, 1366(H) x768(V) screen and 262k colors (RGB 6-bits data driver) with LED backlight driving circuit. All input signals are LVDS interface compatible.

B133XW04 V1 is designed for a display unit of notebook style personal computer and industrial machine.

2.1 General Specification

The following items are characteristics summary on the table at 25 $^{\circ}\mathrm{C}$ condition:

Items	Unit		Specifi	ications	
Screen Diagonal	[mm]	13.3W"(13.	25)		
Active Area	[mm]	293.42 x 164.97			
Pixels H x V		1366 x 3(R	GB) x 768		
Pixel Pitch	[mm]	0.2148 x 0.	2148		
Pixel Format		R.G.B. Ver	tical Stripe		
Display Mode		Normally W	/hite		
White Luminance (ILED=20mA) (Note: ILED is LED current)	[cd/m ²]		points avera	• /	
Luminance Uniformity		1.25 max. (5 points)		
Contrast Ratio		400 typ			
Response Time	[ms]	8 typ / 16 M	1ax		
Nominal Input Voltage VDD	[Volt]	+3.3 typ.			
Power Consumption	[Watt]	4.0 max. (Ir	nclude Logic	and Blu pov	wer)
Weight	[Grams]	350 max.			
Physical Size	[mm]		Min.	Тур.	Max.
Include bracket		Length		307.6	308.1
		Width		183.1	183.6
		Thickness			5.2
Electrical Interface		1 channel LVDS			
Glass Thickness	[mm]	0.5			
Surface Treatment		Anti-Glare, Hardness 3H			
Support Color		262K colors	s (RGB 6-bi	t)	



Temperature Range Operating Storage (Non-Operating)	[°C] [°C]	0 to +50 -20 to +60
RoHS Compliance		RoHS Compliance

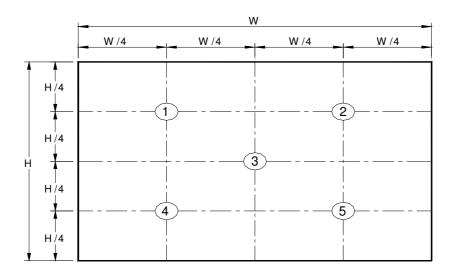
2.2 Optical Characteristics

The optical characteristics are measured under stable conditions at 25°C (Room Temperature):

Item		Symbol	Conditions	Min.	Тур.	Max.	Unit	Note
White Luminance ILED=20mA			5 points average	170	200		cd/m ²	1, 4, 5.
Viewing Angle		heta R	Horizontal (Right)	40	45			
		$oldsymbol{ heta}$ L	CR = 10 (Left)	40	45			
		ф н	Vertical (Upper)	10	15		degree	4, 9
		φ L	CR = 10 (Lower)	30	35			
Luminan Uniformi		δ _{5P}	5 Points			1.25		1, 3, 4
Contrast R	atio	CR		300	400			4, 6
Cross ta	Cross talk					4		4, 7
Response ⁻	Time	T _{RT}	Rising + Falling		8	16	msec	4, 8
	Red	Rx		0.555	0.585	0.615		
	neu	Ry		0.310	0.340	0.370		
	Croon	Gx		0.295	0.325	0.355		
Color /	Green	Gy		0.525	0.555	0.585		
Chromaticity Coodinates		Вх	CIE 1931	0.125	0.155	0.185		4
	Blue	Ву		0.115	0.145	0.175		
		Wx		0.283	0.313	0.343		
	White	Wy		0.299	0.329	0.359		
NTSC		%			45			



Note 1: 5 points position (Ref: Active area)



Note 2: 13 points position (Ref: Active area)



Note 3: The luminance uniformity of 5 or 13 points is defined by dividing the maximum luminance values by the minimum test point luminance

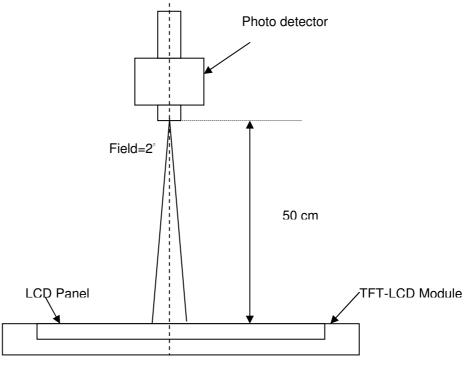
0		Maximum Brightness of five points
δ _{w5} =	•	Minimum Brightness of five points
2		Maximum Brightness of thirteen points
$\delta_{\text{W13}} =$		Minimum Brightness of thirteen points

Note 4: Measurement method

The LCD module should be stabilized at given temperature for 30 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting



Backlight for 30 minutes in a stable, windless and dark room, and it should be measured in the center of screen.



Center of the screen

Note 5: Definition of Average Luminance of White (Y_L):

Measure the luminance of gray level 63 at 5 points \cdot $Y_L = [L(1) + L(2) + L(3) + L(4) + L(5)] / 5$ L (x) is corresponding to the luminance of the point X at Figure in Note (1).

Note 6: Definition of contrast ratio:

Contrast ratio is calculated with the following formula.

Note 7: Definition of Cross Talk (CT)

$$CT = |Y_B - Y_A| / Y_A \times 100 (\%)$$

Where

Y_A = Luminance of measured location without gray level 0 pattern (cd/m₂)

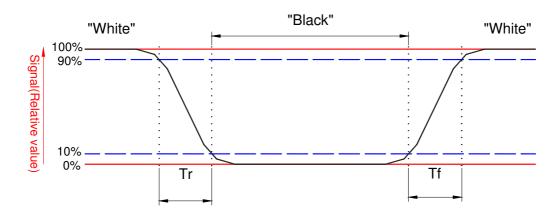
Y_B = Luminance of measured location with gray level 0 pattern (cd/m₂)





Note 8: Definition of response time:

The output signals of BM-7 or equivalent are measured when the input signals are changed from "Black" to "White" (falling time) and from "White" to "Black" (rising time), respectively. The response time interval between the 10% and 90% of amplitudes. Refer to figure as below.





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Note 9. Definition of viewing angle

Viewing angle is the measurement of contrast ratio \geq 10, at the screen center, over a 180° horizontal and 180° vertical range (off-normal viewing angles). The 180° viewing angle range is broken down as follows; 90° (θ) horizontal left and right and 90° (Φ) vertical, high (up) and low (down). The measurement direction is typically perpendicular to the display surface with the screen rotated about its center to develop the desired measurement viewing angle.

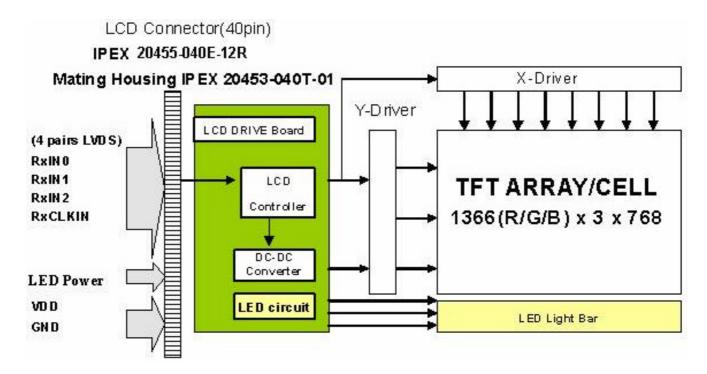




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3. Functional Block Diagram

The following diagram shows the functional block of the 13.3 inches wide Color TFT/LCD 40 Pin one channel Module





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4. Absolute Maximum Ratings

An absolute maximum rating of the module is as following:

4.1 Absolute Ratings of TFT LCD Module

Item	Symbol	Min	Max	Unit	Conditions
Logic/LCD Drive Voltage	Vin	-0.3	+4.0	[Volt]	Note 1,2

4.2 Absolute Ratings of Environment

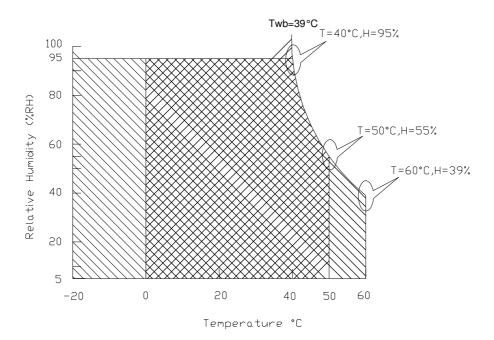
	<u> </u>				
Item	Symbol	Min	Max	Unit	Conditions
Operating Temperature	TOP	0	+50	[°C]	Note 4
Operation Humidity	HOP	5	95	[%RH]	Note 4
Storage Temperature	TST	-20	+60	[°C]	Note 4
Storage Humidity	HST	5	95	[%RH]	Note 4

Note 1: At Ta (25°C)

Note 2: Permanent damage to the device may occur if exceed maximum values

Note 3: LED specification refer to section 5.2

Note 4: For quality performance, please refer to AUO IIS (Incoming Inspection Standard).



Operating Range

Storage Range

+

5. Electrical Characteristics

5.1 TFT LCD Module

5.1.1 Power Specification

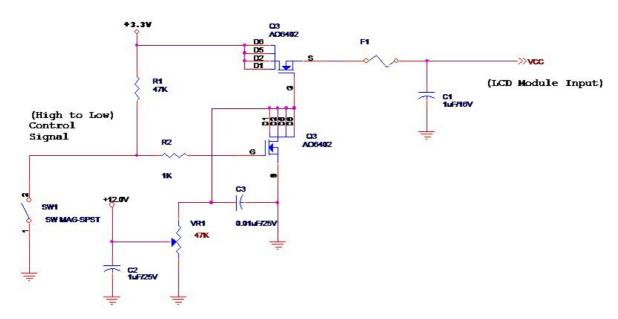
Input power specifications are as follows;

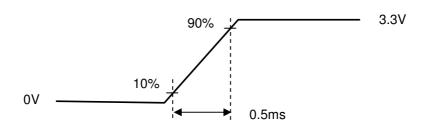
The power specification are measured under 25°C and frame frenquency under 60Hz

Symble	Parameter	Min	Тур	Max	Units	Note
VDD	Logic/LCD Drive Voltage	3.0	3.3	3.6	[Volt]	
PDD	VDD Power	-	-	8.0	[Watt]	Note 1
IDD	IDD Current	-	-	242	[mA]	Note 1
IRush	Inrush Current	-	-	2000	[mA]	Note 2
VDDrp	Allowable Logic/LCD Drive Ripple Voltage	-	-	100	[mV] p-p	

Note 1 : Maximum Measurement Condition : Black Pattern at 3.3V driving voltage. (P_{max}=V_{3.3} x I_{black})

Note 2: Measure Condition





Vin rising time



5.1.2 Signal Electrical Characteristics

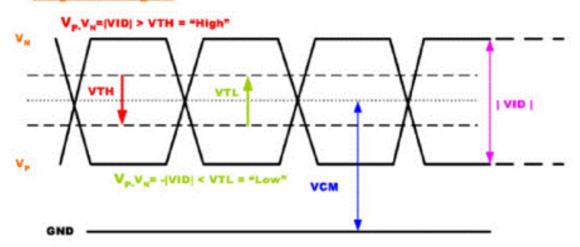
Input signals shall be low or High-impedance state when VDD is off.

Signal electrical characteristics are as follows;

Parameter	Condition	Min	Max	Unit
V _{TH}	Differential Input High Threshold (Vcm=+1.2V)		100	[mV]
V _{TL}	Differential Input Low Threshold (Vcm=+1.2V)	-100		[mV]
V _{ID}	Differential Input Voltage	100	600	[mV]
V _{CM}	Differential Input Common Mode Voltage	1.125	1.375	[V]

Note: LVDS Signal Waveform

Single-end Signal





5.2.1 LED characteristics

Parameter	Symbol	Min	Тур	Max	Units	Condition
Backlight Power Consumption	PLED	-	-	2.2	[Watt]	(Ta=25°C), Note 1 Vin =12V
LED Life-Time	N/A	10,000	-	-	Hour	(Ta=25°C), Note 2 I _F =20 mA

Note 1: Calculator value for reference P_{LED} = VF (Normal Distribution) * IF (Normal Distribution) / Efficiency

Note 2: The LED life-time define as the estimated time to 50% degradation of initial luminous.

5.2.2 Backlight input signal characteristics

Parameter	Symbol	Min	Тур	Max	Units	Remark
LED Power Supply	VLED	6.0	12.0	21.0	[Volt]	
LED Enable Input High Level	VIED EN	2.5	-	5.5	[Volt]	
LED Enable Input Low Level	VLED_EN	-	-	0.8	[Volt]	Define as
PWM Logic Input High Level	\/D\4/44_E\	2.5	-	5.5	[Volt]	Connector Interface
PWM Logic Input Low Level	VPWM_EN	-	-	0.8	[Volt]	(Ta=25°C)
PWM Input Frequency	FPWM	100	-	20K	Hz	
PWM Duty Ratio	Duty	5	-	100	%	



6. Signal Interface Characteristic

6.1 Pixel Format Image

Following figure shows the relationship of the input signals and LCD pixel format.

	1									13	366
1st Line	R G	В	R	G	В		R	G	В	R	G B
						1					
				•		•		•			:
				•		•					:
				•		•					
								•			
	'			,		ı		1			1
768th Line	R G	В	R	G	В		R	G	В	R	G B



6.2 The Input Data Format

RxCLKIN	
RxIN0	G0 R5 R4 R3 R2 R1 R0
RxIN1	B1 B0 G5 G4 G3 G2 G1
RxIN2	DE VS HS B5 B4 B3 B2

Cianal Name	Description	
Signal Name	Description (MCD)	Dad shall Date
R5	Red Data 5 (MSB)	Red-pixel Data
R4	Red Data 4	Each red pixel's brightness data consists of
R3	Red Data 3	these 6 bits pixel data.
R2	Red Data 2	
R1	Red Data 1	
R0	Red Data 0 (LSB)	
	Dad nivel Data	
	Red-pixel Data	
G5	Green Data 5 (MSB)	Green-pixel Data
G4	Green Data 4	Each green pixel's brightness data consists of
G3	Green Data 3	these 6 bits pixel data.
G2	Green Data 2	·
G1	Green Data 1	
G0	Green Data 0 (LSB)	
	,	
	Green-pixel Data	
B5	Blue Data 5 (MSB)	Blue-pixel Data
B4	Blue Data 4	Each blue pixel's brightness data consists of
B3	Blue Data 3	these 6 bits pixel data.
B2	Blue Data 2	·
B1	Blue Data 1	
B0	Blue Data 0 (LSB)	
	Blue-pixel Data	
RxCLKIN	Data Clock	The signal is used to strobe the pixel data and
		DE signals. All pixel data shall be valid at the
		falling edge when the DE signal is high.
DE	Display Timing	This signal is strobed at the falling edge of
		RxCLKIN. When the signal is high, the pixel
		data shall be valid to be displayed.
VS	Vertical Sync	The signal is synchronized to RxCLKIN.
HS	Horizontal Sync	The signal is synchronized to RxCLKIN.

Note: Output signals from any system shall be low or High-impedance state when VDD is off.



6.3 Integration Interface Requirement

6.3.1 Connector Description

Physical interface is described as for the connector on module.

These connectors are capable of accommodating the following signals and will be following components.

Connector Name / Designation	For Signal Connector
Manufacturer	IPEX or Compatible
Type / Part Number	IPEX 20455-040E-12R or Compatible
Mating Housing/Part Number	IPEX 20453-040T-11or Compatible

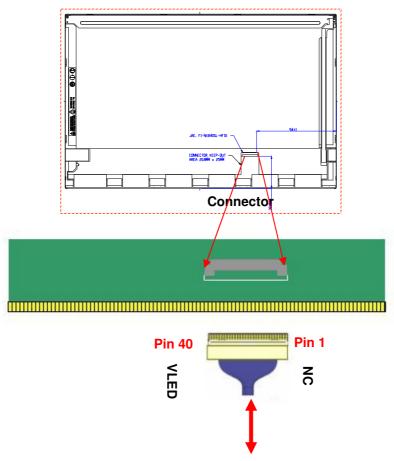
6.3.2 Pin Assignment

LVDS is a differential signal technology for LCD interface and high speed data transfer device.

PIN#	Signal Name	Description
1	NC	No Connection (Reserve)
2	VDD	Power Supply +3.3V
3	VDD	Power Supply +3.3V
4	VEDID	EDID +3.3V Power
5	NC	No Connect (Reserve)
6	CLK_EDID	EDID Clock Input
7	DAT_EDID	EDID Data Input
8	RxOIN0-	-LVDS Differential Data INPUT(Odd R0-R5,G0)
9	RxOIN0+	+LVDS Differential Data INPUT(Odd R0-R5,G0)
10	VSS	Ground
11	RxOIN1-	-LVDS Differential Data INPUT(Odd G1-G5,B0-B1)
12	RxOIN1+	+LVDS Differential Data INPUT(Odd G1-G5,B0-B1)
13	VSS	Ground
14	RxOIN2-	-LVDS Differential Data INPUT(Odd B2-B5,HS,VS,DE)
15	RxOIN2+	+LVDS Differential Data INPUT(Odd B2-B5,HS,VS,DE)
16	VSS	Ground
17	RxOCKIN-	-LVDS Odd Differential Clock INPUT
18	RxOCKIN+	-LVDS Odd Differential Clock INPUT
19	NC	No connection
20	NC	No connection
21	NC	No connection
22 P122VW04 V0	NC	No connection



23	NC	No connection
24	NC	No connection
25	NC	No connection
26	NC	No connection
27	NC	No connection
28	NC	No connection
29	NC	No connection
30	NC	No connection
31	VLED_GND	LED Ground
32	VLED_GND	LED Ground
33	VLED_GND	LED Ground
34	NC	No Connection (Reserve)
35	VPWM_EN	PWM logic input level
36	VLED_EN	LED enable input level
37	DCR_EN	Dynamic Contrast Ratio Input Level
38	VLED	LED Power Supply 6V-21V
39	VLED	LED Power Supply 6V-21V
40	VLED	LED Power Supply 6V-21V



Note1: Input signals shall be low or High-impedance state when VDD is off.

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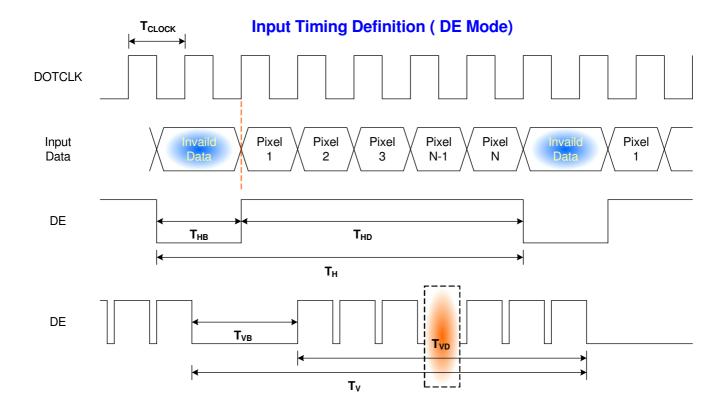
6.4.1 Timing Characteristics

Basically, interface timings should match the 1366x768 /60Hz manufacturing guide line timing.

Parameter		Symbol	Min.	Тур.	Max.	Unit
Frame Rate		-		60		Hz
Clock frequency		1/ T _{Clock}	65	74.98	80	MHz
	Period	T _V	776	800	1000	
Vertical	Active	T _{VD}	768			\mathbf{T}_{Line}
Section	Blanking	T _{VB}	8	32	323	
	Period	T _H	1426	1562	2000	
Horizontal	Active	T _{HD}		1366		T_{Clock}
Section	Blanking	T _{HB}	60	196	634	

Note: DE mode only

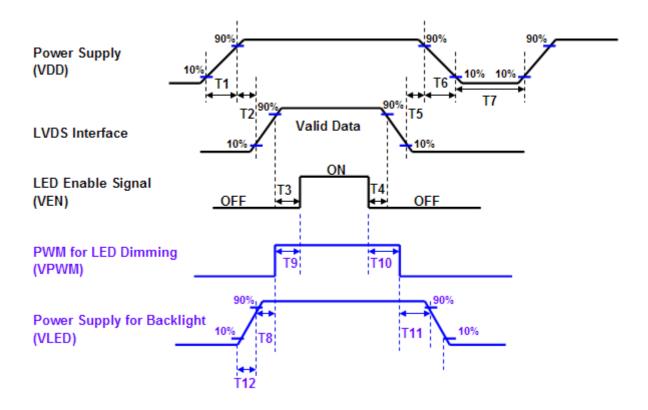
6.4.2 Timing diagram



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6.5 Power ON/OFF Sequence

Power on/off sequence is as follows. Interface signals and LED on/off sequence are also shown in the chart. Signals from any system shall be Hi-Z state or low level when VDD is off



Power Sequence Timing						
	Value					
Parameter	Min.	Max.	Units			
T1	0.5	10				
T2	0	50				
Т3	200					
T4	200	-				
T5	0	50				
Т6	0	10	ms			
Т7	500	-				
Т8	10	-				
Т9	0	180				
T10	0	180				
T11	10	<u>-</u>				
T12	0.5	10				



7. Panel Reliability Test

7.1 Vibration Test

Test Spec:

Test method: Non-Operation

Acceleration: 1.5 G

Frequency: 10 - 500Hz Random

Sweep: 30 Minutes each Axis (X, Y, Z)

7.2 Shock Test

Test Spec:

Test method: Non-Operation

Acceleration: 220 G, Half sine wave

Active time: 2 ms

Pulse: X,Y,Z .one time for each side

7.3 Reliability Test

Items	Required Condition	Note
Temperature Humidity Bias	Ta= 40℃, 90%RH, 300h	
High Temperature Operation	Ta= 50℃, Dry, 300h	
Low Temperature Operation	Ta= 0℃, 300h	
High Temperature Storage	Ta= 60℃, 35%RH, 300h	
Low Temperature Storage	Ta= -20℃, 50%RH, 250h	
Thermal Shock Test	Ta=-20℃to 60℃, Duration at 30 min, 100 cycles	
ESD	Contact : ±8 KV	Note 1
LSD	Air: ±15 KV	

Note1: According to EN 61000-4-2, ESD class B: Some performance degradation allowed. Self-recoverable.

No data lost, No hardware failures.

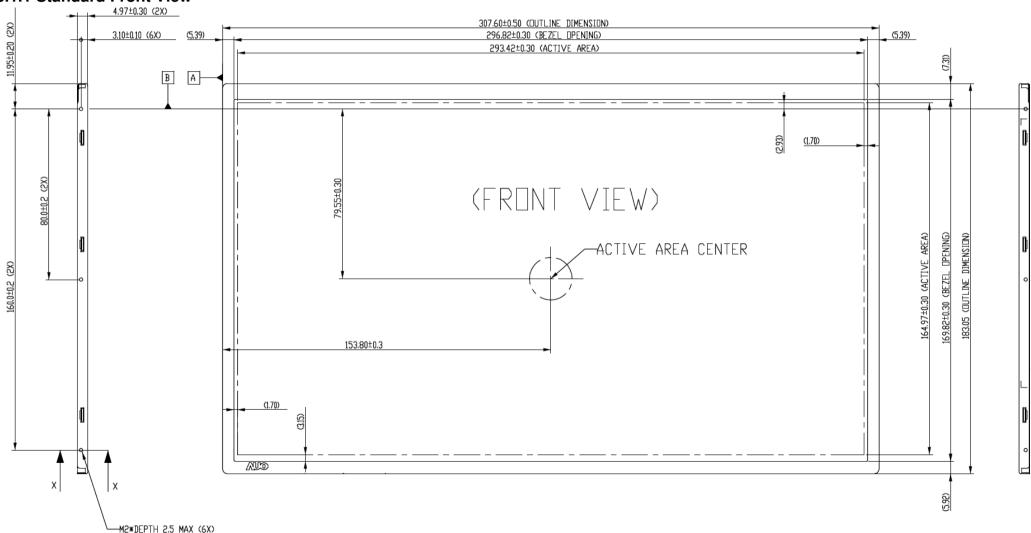
Remark: MTBF (Excluding the LED): 30,000 hours with a confidence level 90%



8. Mechanical Characteristics

8.1 LCM Outline Dimension

8.1.1 Standard Front View



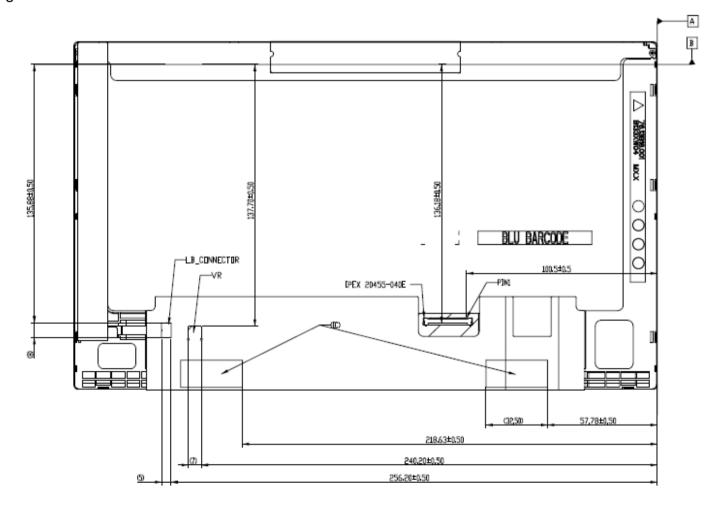
B133XW04 V0 Document Version: 1.0



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8.1.2 Standard Rear View & Key components remark and remind

Prevention damage the IC, connector, Capacitor...., we recommend your design (Ex: cable, rib, hardness parts) far away those section those have remarked at this drawing.



Note: Prevention IC damage, IC positions not allowed any overlap over these areas.

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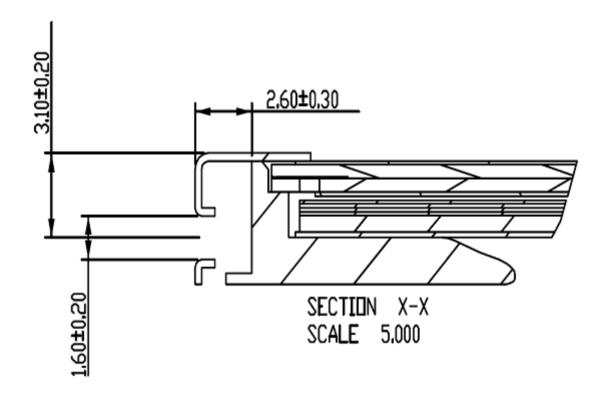
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8.2 Screw Hole Depth and Center Position

Maximum Screw penetration from side surface is 2.6± 0.3 mm

The center of screw hole center location is 3.1 \pm 0.2 mm from front surface

Screw Torque: Maximum 2.5 kgf-cm



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9. Shipping and Package

9.1 Shipping Label Format



Manufactured YY/WW Model No: B133XW04 V0 **AU Optronics** MADE IN CHINA (S1)

E204356

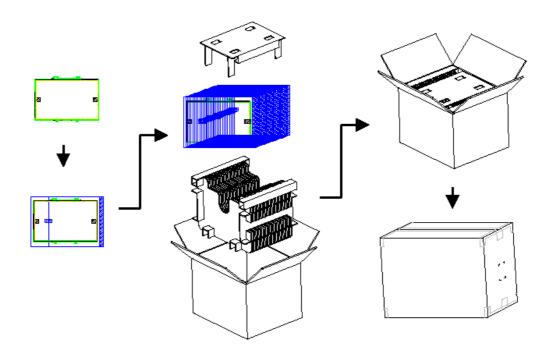




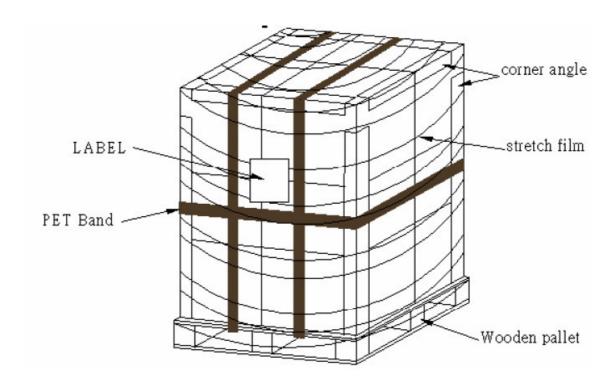
H/W: 0A F/W:1



The outside dimension of carton is 437 (L) mm x 359 (W) mm x 285 (H) mm



9.3 Shipping Package of Palletizing Sequence





10. Appendix: EDID Description

Address	FUNCTION	Value	Value	Value	Note
HEX		HEX	BIN	DEC	
00	Header	00	00000000	0	
01		FF	11111111	255	
02		FF	11111111	255	
03		FF	11111111	255	
04		FF	11111111	255	
05		FF	11111111	255	
06		FF	11111111	255	
07		00	00000000	0	
08	EISA Manuf. Code LSB	06	00000110	6	
09	Compressed ASCII	AF	10101111	175	
0A	Product Code	2C	00101100	44	
0B	hex, LSB first	41	01000001	65	
0C	32-bit ser #	00	00000000	0	
0D		00	00000000	0	
0E		00	00000000	0	
0F		00	00000000	0	
10	Week of manufacture	00	00000000	0	
11	Year of manufacture	14	00010100	20	
12	EDID Structure Ver.	01	00000001	1	
13	EDID revision #	03	00000011	3	
14	Video input def. (digital I/P, non-TMDS, CRGB)	80	10000000	128	
15	Max H image size (rounded to cm)	1D	00011101	29	
16	Max V image size (rounded to cm)	10	00010000	16	
17	Display Gamma (=(gamma*100)-100)	78	01111000	120	
	Feature support (no DPMS, Active OFF, RGB,				
18	tmg Blk#1)	0A	00001010	10	
19	Red/green low bits (Lower 2:2:2:2 bits)	15	00010101	21	
1A	Blue/white low bits (Lower 2:2:2:2 bits)	85	10000101	133	
1B	Red x (Upper 8 bits)	97	10010111	151	
1C	Red y/ highER 8 bits	58	01011000	88	
1D	Green x	53	01010011	83	
1E	Green y	8A	10001010	138	
1F	Blue x	26	00100110	38	
20	Blue y	25	00100101	37	
21	White x	50	01010000	80	
22	White y	54	01010100	84	



00	Fatablish addition of		0000000		
23	Established timing 1	00	00000000	0	
24	Established timing 2	00	00000000	0	
25	Established timing 3	00	00000000	0	
26	Standard timing #1	01	00000001	1	
27		01	00000001	1	
28	Standard timing #2	01	00000001	1	
29		01	00000001	1	
2A	Standard timing #3	01	00000001	1	
2B		01	00000001	1	
2C	Standard timing #4	01	00000001	1	
2D		01	0000001	1	
2E	Standard timing #5	01	0000001	1	
2F		01	00000001	1	
30	Standard timing #6	01	00000001	1	
31		01	0000001	1	
32	Standard timing #7	01	0000001	1	
33		01	0000001	1	
34	Standard timing #8	01	0000001	1	
35		01	0000001	1	
36	Pixel Clock/10000 LSB	12	00010010	18	
37	Pixel Clock/10000 USB	1B	00011011	27	
38	Horz active Lower 8bits	56	01010110	86	
39	Horz blanking Lower 8bits	5A	01011010	90	
3A	HorzAct:HorzBlnk Upper 4:4 bits	50	01010000	80	
3B	Vertical Active Lower 8bits	00	00000000	0	
3C	Vertical Blanking Lower 8bits	19	00011001	25	
3D	Vert Act: Vertical Blanking (upper 4:4 bit)	30	00110000	48	
3E	HorzSync. Offset	30	00110000	48	
3F	HorzSync.Width	20	00100000	32	
40	VertSync.Offset : VertSync.Width	36	00110110	54	
41	Horz‖ Sync Offset/Width Upper 2bits	00	00000000	0	
42	Horizontal Image Size Lower 8bits	25	00100101	37	
43	Vertical Image Size Lower 8bits	A4	10100100	164	
44	Horizontal & Vertical Image Size (upper 4:4 bits)	10	00010000	16	
45	Horizontal Border (zero for internal LCD)	00	00000000	0	
46	Vertical Border (zero for internal LCD)	00	00000000	0	
47	Signal (non-intr, norm, no stero, sep sync, neg pol)	18	00011000	24	
48	Detailed timing/monitor	00	00000000	0	
49	descriptor #2	00	00000000	0	



4A		00	00000000	0	
4B		0F	0000000	15	
4C		00	0000000	0	
4D		00	0000000	0	
4E		00	0000000	0	
4F		00	0000000	0	
50		00	0000000	0	
51		00	0000000	0	
52		00	0000000	0	
53		00	0000000	0	
54		00	0000000	0	
55		00	0000000	0	
56		00	0000000	0	
57		00	0000000	0	
58		00	00000000	0	
59		20	00100000	32	
5A	Detailed timing/monitor	00	0000000	0	
5B	descriptor #3	00	00000000	0	
5C	descriptor no	00	00000000	0	
5D		FE	11111110	254	
5E		00	00000000	0	
5F	Manufacture	41	01000001	65	А
60	Manufacture	55	01010101	85	U
61	Manufacture	4F	01001111	79	0
62		0A	00001010	10	
63		20	00100000	32	
64		20	00100000	32	
65		20	00100000	32	
66		20	00100000	32	
67		20	00100000	32	
68		20	00100000	32	
69		20	00100000	32	
6A		20	00100000	32	
6B		20	00100000	32	
6C	Detailed timing/monitor	00	00000000	0	
6D	descriptor #4	00	00000000	0	
6E		00	00000000	0	
6F		FE	11111110	254	
70		00	00000000	0	



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71	Manufacture P/N	42	01000010	66	В
72	Manufacture P/N	31	00110001	49	1
73	Manufacture P/N	33	00110011	51	3
74	Manufacture P/N	33	00110011	51	3
75	Manufacture P/N	58	01011000	88	Х
76	Manufacture P/N	57	01010111	87	W
77	Manufacture P/N	30	00110000	48	0
78	Manufacture P/N	34	00110100	52	4
79	Manufacture P/N	20	00100000	32	
7A	Manufacture P/N	56	01010110	86	V
7B	Manufacture P/N	31	00110001	49	1
7C		20	00100000	32	
7D		0A	00001010	10	
7E	Extension Flag	00	00000000	0	
7F	Checksum	54	01010100	84	