

- (\checkmark) Preliminary Specifications
- () Final Specifications

Module	10.1"(10.07") WXGA 16:10 Color TFT-LCD with LED Backlight design				
Model Name	B101EW05 V6 (H/W:1A)				
Note C ECOlor	LED Backlight with driving circuit design ✓ Color Management (Virtual and Rich Color Solution) ✓ Dynamic Contrast Ratio (Power Saving Solution)				

Customer	Date
Checked & Approved by	Date
Note: This Specification change without notice.	is subject to

Approved by	Date				
<u>Boris Chu</u>	<u>1/17/2011</u>				
Prepared by					
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NBBU Marketing Division AU Optronics corporation					



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Record of Revision

Vei	rsion and Date	Page	Old description	New Description	Remark
0.1	2011/01/17	All	First Edition for Customer		



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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.



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2. General Description

B101EW05 V0 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 16:10 WXGA, 1280(H) x800(V) screen and 262k colors (RGB 6-bits data driver) with LED backlight driving circuit. All input signals are LVDS interface compatible.

B101EW05 V0 is designed for a display unit of notebook style personal computer and industrial machine.

2.1 General Specification

Items	Unit	Specifications				
Screen Diagonal	[mm]	255.85 (10.07W")				
Active Area	[mm]	216.96(H) x 135.6(V)				
Pixels H x V		1280 x 3(RGI	3) x 800			
Pixel Pitch	[mm]	0.1695 X 0.16	395			
Pixel Format		R.G.B. Vertic	al Stripe			
Display Mode		Normally Blo	ıck			
White Luminance (ILED=21mA) (Note: ILED is LED current)	[cd/m ²]	350 typ. (5 points average w/o touch panel) 297 min. (5 points average w/o touch panel)				
Luminance Uniformity		1.25 max. (5	points)			
Contrast Ratio		1300 typ, 100	00 min.			
Response Time	[ms]	25 typ / 35 N	Лах			
Nominal Input Voltage VDD	[Volt]	+3.3 typ.				
Power Consumption	[Watt]	3.4 max. (Inc	clude Logic a	ınd Blu power)	
Weight	[Grams]	180 max.				
	[mm]		Min.	Тур.	Max.	
Physical Size		Length	228.96	229.46	229.95	
without bracket		Width	148.7	149.2	149.7	
		Thickness			5.2	
Electrical Interface		1 channel L	VDS			
Glass Thickness	[mm]	0.3				
Surface Treatment		Anti-Reflecti	on≦1.5%, Ha	ırdness 3H		
Support Color		262K colors	(RGB 6-bit)			
Temperature Range Operating Storage (Non-Operating)	[°C]	0 to +50 -20 to +60				
RoHS Compliance		RoHS Comp	liance			

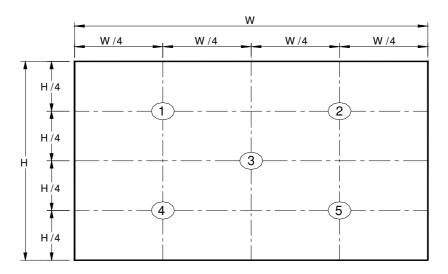


2.2 Optical Characteristics

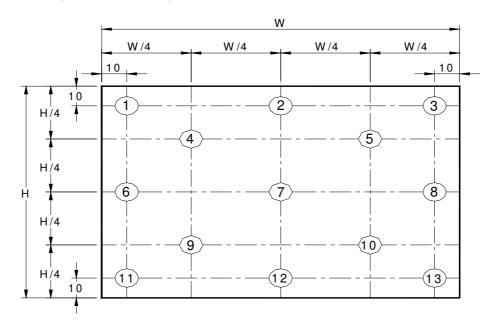
The optical characteristics are measured under stable conditions at 25°C (Room Temperature):

Item		Symbol	Conditions	Min.	Тур.	Мах.	Unit	Note
White Luminance ILED=19mA			5 points average	297	350		cd/m²	1, 4, 5.
		Θ_{R}	Horizontal (Right)	80	85			
Viewing Ar	nale	θL	CR = 10 (Left)	80	85		degre	4.0
viewing / (i	igic	Ψн	Vertical (Upper)	80	85		е	4, 9
		ΨL	CR = 10 (Lower)	80	85			
Luminance Un	iformity	δ_{5P}	5 Points			1.25		1, 3, 4
Luminance Un	Luminance Uniformity		13 Points			1.50		2, 3, 4
Contrast Ro	atio	CR		1000	1300	-		4, 6
Cross tal	k	%				4		4, 7
Response T	ime	T _{RT}	Rising + Falling		25	35	msec	4, 8
	Red	Rx		0.549	0.579	0.609		
	Red	Ry		0.308	0.338	0.368		
	Croon	Gx		0.295	0.325	0.355		
Color / Chromaticity	Green	Gy		0.530	0.560	0.590		
Coordinates		Bx	CIE 1931	0.132	0.152	0.182		4
	Blue	Ву		0.095	0.125	0.155		
		Wx		0.283	0.313	0.343		
	White	ite 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

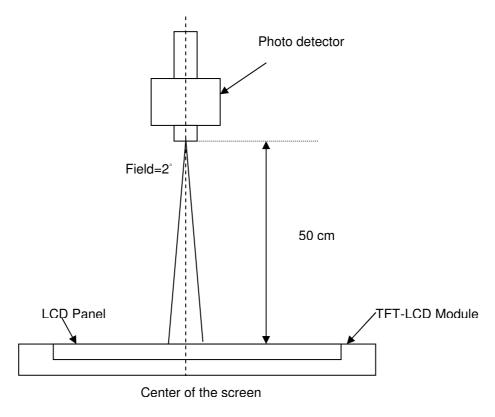
2	Maximum Brightness of five points
$\delta_{W5} =$	Minimum Brightness of five points
2	Maximum Brightness of thirteen points
$\delta_{W13} =$	Minimum Brightness of thirteen points



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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.



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)

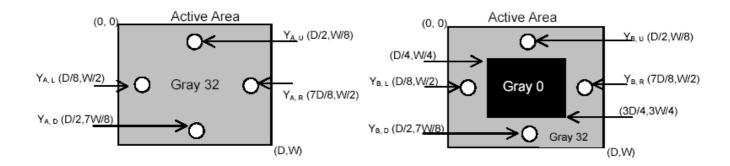
$$CT = | Y_B - Y_A | / Y_A \times 100 (\%)$$

Where



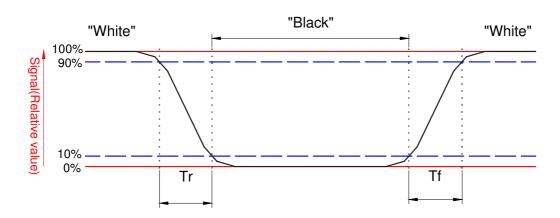
Y_A = Luminance of measured location without gray level 0 pattern (cd/m₂)

 $Y_B = Luminance$ 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.

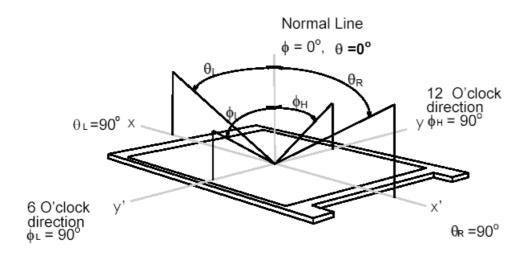




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Note 9. Definition of viewing angle

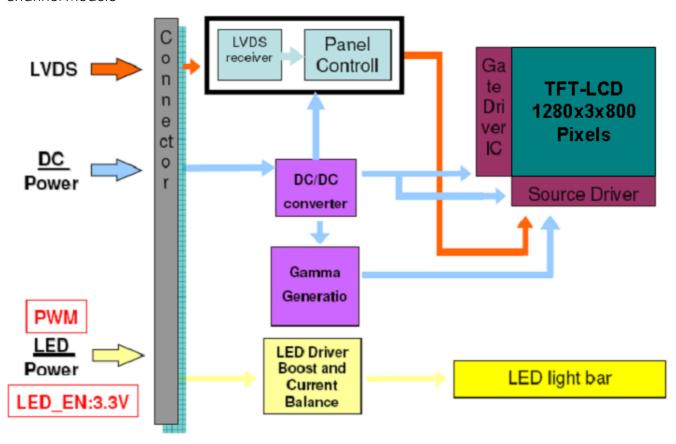
Viewing angle is the measurement of contrast ratio \geq 10, at the screen center, over a 180° horizontal and 180° vertical range (off-normal viewing angles). The 180° viewing angle range is broken down as follows; 90° (θ) horizontal left and right and 90° (Φ) vertical, high (up) and low (down). The measurement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





3. Functional Block Diagram

The following diagram shows the functional block of the 10.1 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	Vin	-0.3	+4.0	[Volt]	Note 1,2

4.2 Absolute Ratings of Touch Sensor

Item	Symbol	Min	Max	Unit	Conditions
Touch Sensor	Vin	2.1		[Volt]	
Power Voltage	VIII	3.1	0	[VOII]	

4.3 Absolute Ratings of Environment

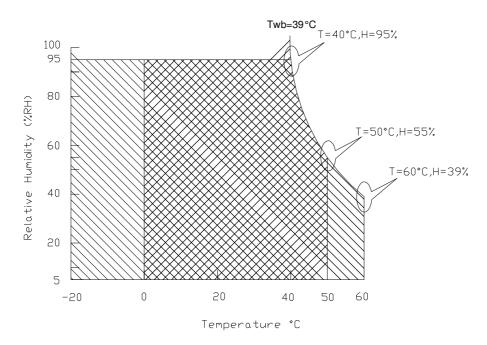
Item	Symbol	Min	Max	Unit	Conditions		
Operating	TOP	0	+50	[°C]	Note 4		
Operation Humidity	HOP	5	95	[%RH]	Note 4		
Storage Temperature	TST	-20	+60	[°C]	Note 4		
Storage Humidity	HST	5	95	[%RH]	Note 4		

Note 1: At Ta (25°€)

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

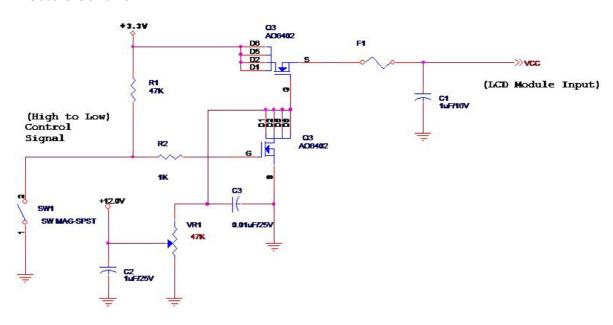
Input power specifications are as follows;

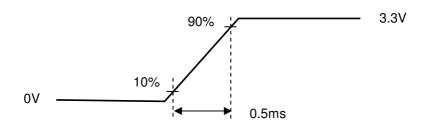
The power specification are measured under 25°C and frame frenquency under 60Hz

Symble	Parameter	Min	Тур	Max	Units	Note
VDD	Logic/LCD Drive Voltage	3.0	3.3	3.6	[Volt]	
PDD	VDD Power	_	-	0.7	[Watt]	Note 1
IDD	IDD Current	-	1	212	[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. (Pmax=V3.3 x lblack)

Note 2: Measure Condition





Vin rising time



5.1.2 Signal Electrical Characteristics

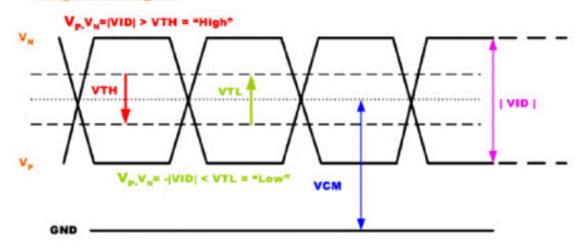
Input signals shall be low or High-impedance state when VDD is off.

Signal electrical characteristics are as follows;

Parameter	Condition	Min	Max	Unit
V _{TH}	Differential Input High Threshold		100	[mV]
V _{TL}	Differential Input Low Threshold	-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





5.1.3 Dynamic contrast ratio Characteristics

Parameter	Symbol	Min	Тур	Max	Units	Remark
Dynamic contrast ratio(DCR) Input High Level		2.5	-	5.5	[Volt]	Define as Connector
Dynamic contrast ratio(DCR) Input Low Level	DCR_EN	-	-	0.8	[Volt]	Interface (Ta=25°C)
DCR Mode Duty Index	Duty	70	-	100	%	Note 1
L0 Gray level	Power	-	0.7P	-	Watt	
L63 Gray level	Power	-	1P	-	Watt	Note 2

Note 1: The minimums dynamic contrast ratio is setting at darkness, and a maximum is setting at brightness.

Note 2: The power saving capability refer to original Backlight power consumption (P)

5.2 Touch Sensor Power Consumption

Items	Symbol	Sp	ecification	Unit	Notes		
nons	O y 1110 O 1	Min.	Тур.	Max.	01111	110103	
Touch Panel Power Supply	VDD	3.1	3.3	3.4	٧		
Touch Panel Power Supply Current	VDDi			50	mA		



5.3.1 LED characteristics

Parameter	Symbol	Min	Тур	Max	Units	Condition
Backlight Power Consumption	PLED	-	-	2.7	[Watt]	(Ta=25°C), Note 1 Vin =12V
LED Life-Time	N/A	15,000	-	-	Hour	(Ta=25°C), Note 2 I _F =21mA

Note 1: Calculator value for reference PLED = VF (Normal Distribution) * IF (Normal Distribution) / Efficiency

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

5.3.2 Backlight input signal characteristics

Parameter	Symbol	Min	Тур	Max	Units	Remark
LED Power Supply	VLED	5.5	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		2.5	-	5.5	[Volt]	Connector Interface
PWM Logic Input Low Level	VPWM_EN	-	-	0.8	[Volt]	(Ta=25°C)
PWM Input Frequency	FPWM	200	-	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									1:	28 0	
1st Line	R	G	В	R	G	В		R	G	В	R	G	В
		•			•		1		•			•	
							·						
		•					'		•				
		•			•		•		•			•	
800th Line	R	G	В	R	G	В		R	G	В	R	G	В



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

Signal Name	Description	
R5	Red Data 5 (MSB)	Red-pixel Data
R4	Red Data 4	Each red pixel's brightness data consists of these 6
R3	Red Data 3	bits pixel data.
R2	Red Data 2	
R1	Red Data 1	
RO	Red Data 0 (LSB)	
	Red-pixel Data	
	·	
G5	Green Data 5 (MSB)	Green-pixel Data
G4	Green Data 4	Each green pixel's brightness data consists of these 6
G3	Green Data 3	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 these 6
В3	Blue Data 3	bits pixel data.
B2	Blue Data 2	
B1	Blue Data 1	
ВО	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 LVDS 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	JAE or Compatible					
Type / Part Number	JAE HD1S040HA1 or Compatible					
Mating Housing/Part Number	IPEX 20453-040T-11or Compatible					

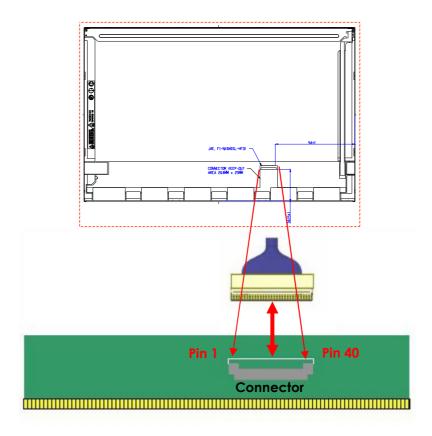
6.3.2 LVDS Pin Assignment

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	AVDD	Power Supply +3.3V
3	AVDD	Power Supply +3.3V
4	VEDID	EDID +3.3V Power
5	NC	No Connection (Reserve)
6	CLK_EDID	EDID Clock Input
7	DAT_EDID	EDID Data Input
8	Rin0-	-LVDSdifferential data input(R0-R5,G0)
9	Rin0+	+LVDSdifferential data input(R0-R5,G0)
10	GND	Ground
11	Rin1-	-LVDSdifferential data input(G1-G5,B0-B1)
12	Rin1+	+LVDSdifferential data input(G1-G5,B0-B1)
13	GND	Ground
14	Rin2-	-LVDSdifferential data input(B2-B5,HS,VS,DE)
15	Rin2+	+LVDSdifferential data input(B2-B5,HS,VS,DE)
16	GND	Ground
17	ClkIN-	-LVDSdifferential clock input
18	CIKIN+	+LVDSdifferential clock input
19	GND	Ground-Shield
20	NC	No Connection (Reserve)
21	NC	No Connection (Reserve)
22	GND	Ground-Shield
23	NC	No Connection (Reserve)



24	NC	No Connection (Reserve)
25	GND	Ground-Shield
26	NC	No Connection (Reserve)
27	NC	No Connection (Reserve)
28	GND	Ground-Shield
29	NC	No Connection (Reserve)
30	NC	No Connection (Reserve)
31	VLED_GND	LED Ground
32	VLED_GND	LED Ground
33	VLED_GND	LED Ground
34	NC	No Connection (Reserve)
35	VPWM_EN	System PWM Logic Input Level
36	VLED_EN	LED enable input level
37	DCR_EN	DCR enable input level
38	VLED	LED Power Supply
39	VLED	LED Power Supply
40	VLED	LED Power Supply



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

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6.5 LVDS Interface Timing

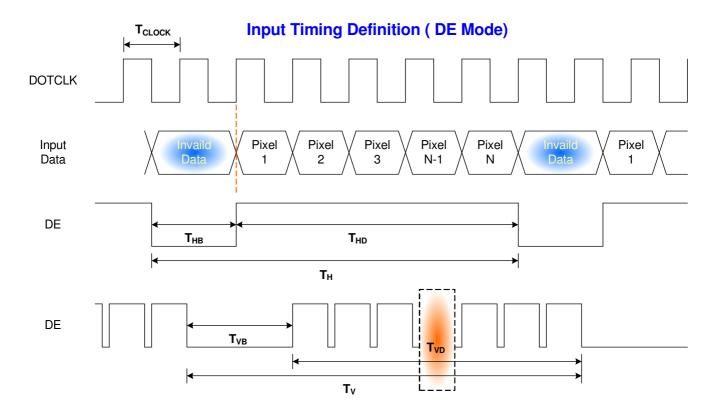
6.5.1 Timing Characteristics

Basically, interface timings should match the 1280x800 /60Hz manufacturing guide line timing.

Parameter		Symbol	Min.	Тур.	Max.	Unit
Frame Rate				60		Hz
Clock frequency		1/ T _{Clock}	64	68.93	85	MHz
	Period	T _V	808	816	1023	
Vertical	Active	T VD		800		T Line
Section	Blanking	T∨B	8	16	223	
	Period	T _H	1310	1408	2047	
Horizontal	Active	T HD		1280		T_{Clock}
Section	Blanking	Тнв	40	168	767	

Note: DE mode only

6.5.2 Timing diagram

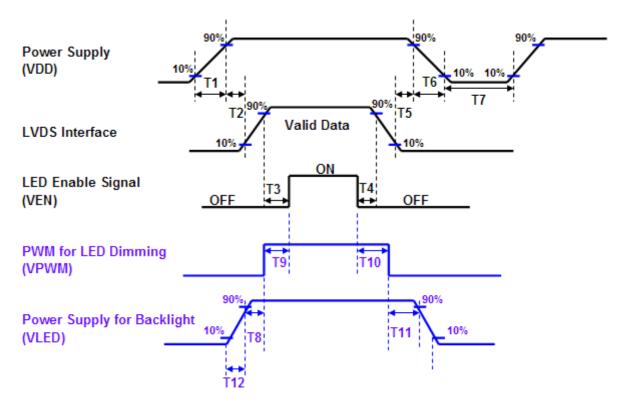




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6.6 Power ON/OFF Sequence

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				
T3	200	-				
T4	200	-				
T5	0	50				
T6	0	10	ms			
T7	500	-				
T8	10	-				
Т9	0	180				
T10	0	180				
T11	10	-				
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

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

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	Tα= 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
E3D	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%

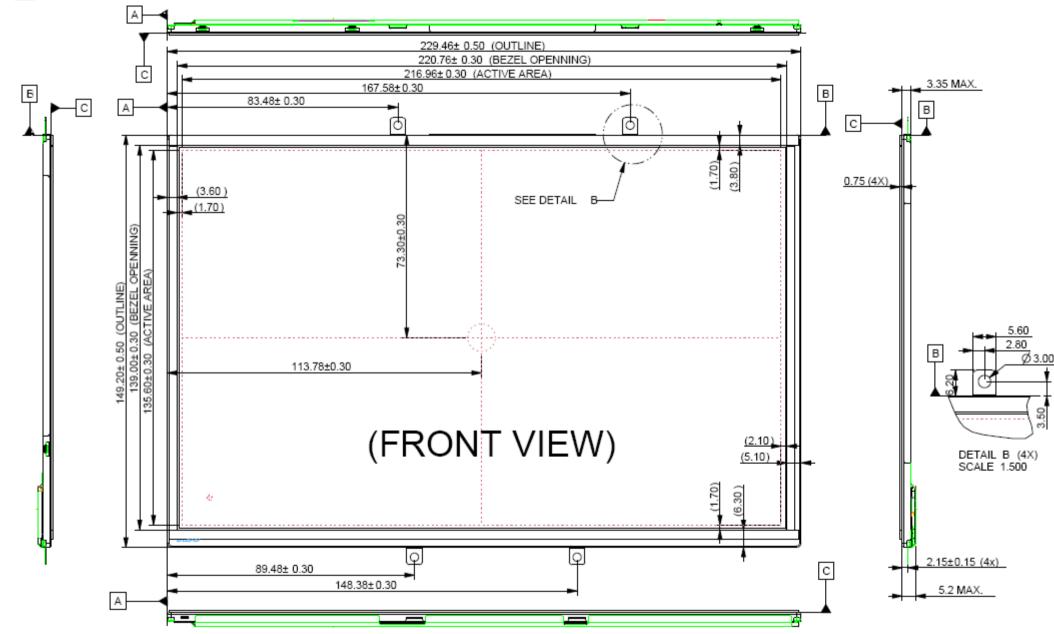


- 8. Mechanical Characteristics
- 8.1 LCM Outline Dimension
- 8.1.1 Standard Front View

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Product Specification

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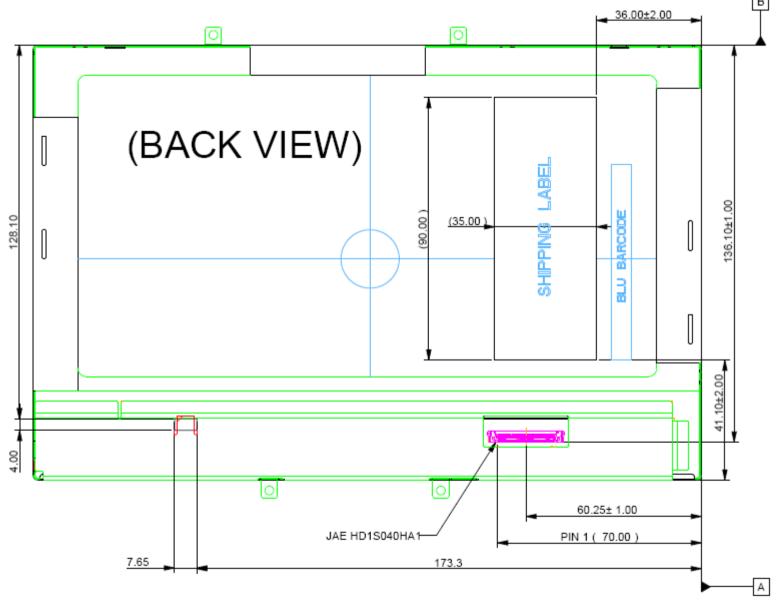


8.1.2 Standard Rear View & Key components remark and remind

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.



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



9. Shipping and Package

9.1 Shipping Label Format



Manufactured 10/11 Model No: B101EW05 V0 **AU Optronics** MADE IN CHINA (501) H/W: 1A F/W:1

C N US (



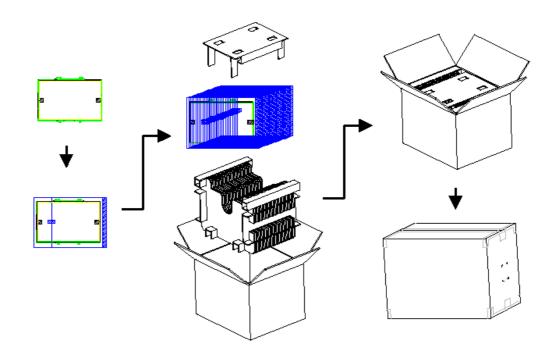




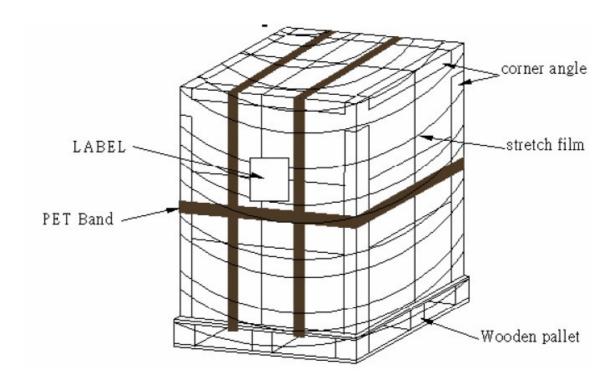


9.2 Carton Package

The outside dimension of carton is TBD (L)mm x TBD (W)mm x TBD (H)mm



9.3 Shipping Package of Palletizing Sequence





10. Appendix

10.1 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	D4	11010100	212	
ОВ	hex, LSB first	50	01010000	80	
0C	32-bit ser #	00	00000000	0	
0D		00	00000000	0	
0E		00	00000000	0	
OF		00	00000000	0	
10	Week of manufacture	01	00000001	1	
11	Year of manufacture	14	00010100	20	
12	EDID Structure Ver.	01	0000001	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)	16	00010110	22	
16	Max V image size (rounded to cm)	OE	00001110	14	
17	Display Gamma (=(gamma*100)-100)	78	01111000	120	
	Feature support (no DPMS, Active OFF, RGB, tmg				
18	Blk#1)	0A	00001010	10	
19	Red/green low bits (Lower 2:2:2:2 bits)	СВ	11001011	203	
1A	Blue/white low bits (Lower 2:2:2:2 bits)	55	01010101	85	
1B	Red x (Upper 8 bits)	94	10010100	148	
1C	Red y/ highER 8 bits	57	01010111	87	
1D	Green x	53	01010011	83	
1E	Green y	8E	10001110	142	
1F	Blue x	27	00100111	39	



20	Blue y	23	00100011	35	
21	White x	50	01010000	80	
22	White y	54	01010100	84	
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	0000001	1	
27		01	0000001	1	
28	Standard timing #2	01	0000001	1	
29		01	0000001	1	
2A	Standard timing #3	01	0000001	1	
2B		01	0000001	1	
2C	Standard timing #4	01	0000001	1	
2D		01	0000001	1	
2E	Standard timing #5	01	0000001	1	
2F		01	0000001	1	
30	Standard timing #6	01	0000001	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	20	00100000	32	
37	Pixel Clock/10000 USB	1C	00011100	28	
38	Horz active Lower 8bits	00	00000000	0	
39	Horz blanking Lower 8bits	В8	10111000	184	
3A	HorzAct:HorzBlnk Upper 4:4 bits	50	01010000	80	
3B	Vertical Active Lower 8bits	20	00100000	32	
3C	Vertical Blanking Lower 8bits	80	00001000	8	
3D	Vert Act: Vertical Blanking (upper 4:4 bit)	30	00110000	48	
3E	HorzSync. Offset	8	00001000	8	
3F	HorzSync.Width	Α	00001010	10	
40	VertSync.Offset: VertSync.Width	31	00110001	49	
41	Horz‖ Sync Offset/Width Upper 2bits	00	00000000	0	
42	Horizontal Image Size Lower 8bits	D8	11011000	216	
43	Vertical Image Size Lower 8bits	87	10000111	135	
44	Horizontal & Vertical Image Size (upper 4:4 bits)	00	00000000	0	
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		OF	00001111	15	
4C		00	00000000	0	
4D		00	00000000	0	
4E		00	00000000	0	
4F		00	00000000	0	
50		00	00000000	0	
51		00	00000000	0	
52		00	00000000	0	
53		00	00000000	0	
54		00	00000000	0	
55		00	00000000	0	
56		00	00000000	0	
57		00	00000000	0	
58		00	00000000	0	
59		20	00100000	32	
5A	Detailed timing/monitor	00	00000000	0	
5B	descriptor #3	00	00000000	0	
5C		00	00000000	0	
5D		FE	11111110	254	
5E		00	00000000	0	
5F	Manufacture	41	01000001	65	Α
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	



		00			
6E		00	00000000	0	
6F		FE	11111110	254	
70		00	00000000	0	
71	Manufacture P/N	42	01000010	66	В
72	Manufacture P/N	31	00110001	49	1
73	Manufacture P/N	30	00110000	48	0
74	Manufacture P/N	31	00110001	49	1
75	Manufacture P/N	45	01000101	69	E
76	Manufacture P/N	57	01010111	87	W
77	Manufacture P/N	30	00110000	48	0
78	Manufacture P/N	35	00110101	53	5
79	Manufacture P/N	20	00100000	32	
7A	Manufacture P/N	56	01010110	86	V
7B	Manufacture P/N	30	00110000	48	0
7C		20	00100000	32	
7D		0A	00001010	10	
7E	Extension Flag	00	00000000	0	
7F	Checksum	CF	11001111	207	