Product Specification
AU OPTRONICS CORPORATION

(V) Preliminary Specifications

(   ) Final Specifications

Module	11.6"(11.57") HD 16:9 Color TFT-LCD with LED Backlight design
Model Name	B116XW02 V1 H/W:1A
Note (🔆)	*LED Backlight with driving circuit design*

Customer	Date
Checked & Approved by	**Date**

Note: This Specification is subject to change without notice.

Approved by	Date
	Kendra Wang 08/28/2009
Prepared by	**Date**
	Honey Dai 08/28/2009

NBBU Marketing Division
AU Optronics corporation

Product Specification

AU OPTRONICS CORPORATION

Contents

Record of Revision

Version and Date	Page	Old description	New Description	Remark
0.1 2009/08/28	All	First Edition for Customer		

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

B116XW02 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.

B116XW02 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 ℃ condition:

| Items	Unit	Specifications			
Screen Diagonal	[mm]	293.83			
Active Area	[mm]	256.125 X 144.0			
Pixels H x V		1366x3(RGB) x 768			
Pixel Pitch	[mm]	0.1875 x 0.1875			
Pixel Format		R.G.B. Vertical Stripe			
Display Mode		Normally White			
White Luminance (I_{LED}=20mA) (Note: ILED is LED current)	[cd/m^2]	200 typ. (5 points average) 180 min. (5 points average)			
Luminance Uniformity		1.25 max. (5 points)			
Contrast Ratio		500:1 typ			
Response Time	[ms]	8 typ / 16 Max			
Nominal Input Voltage VDD	[Volt]	+3.3 typ.			
Power Consumption	[Watt]	3.8 max. (Include Logic and Blu power)			
Weight	[Grams]	255g max.			
Physical Size Include bracket	[mm]		Min.	Typ.	Max.
		Length	267.5	268.0	268.5
		Width	161.0	161.5	162.0
		Thickness	-	-	5.2
Electrical Interface		1 channel LVDS			
Glass Thickness	[mm]	0.5			
Surface Treatment		AG, Hardness 3H			
Support Color		262K colors (RGB 6-bit)			

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

2.2 Optical Characteristics

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

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit	Note
White Luminance I_{LED}=20mA			5 points average	180	200	-	cd/m^2	1, 4, 5.
Viewing Angle		θ_R	Horizontal (Right)	40	45	-	degree	4, 9
		θ_L	CR = 10 (Left)	40	45	-		
		ϕ_H	Vertical (Upper)	15	20	-		
		ϕ_L	CR = 10 (Lower)	35	40	-		
Luminance Uniformity		δ_{5P}	5 Points	-	-	1.25		1, 3, 4
Luminance Uniformity		δ_{13P}	13 Points	-	-	1.60		2, 3, 4
Contrast Ratio		CR		400	500	-		4, 6
Cross talk		%				4		4, 7
Response Time		T_r	Rising	-	3	-	msec	4, 8
		T_f	Falling	-	5	-		
		T_{RT}	Rising + Falling	-	8	16		
Color / Chromaticity Coodinates	Red	Rx	CIE 1931	0.550	0.580	0.610		4
		Ry		0.315	0.345	0.375		
	Green	Gx		0.295	0.325	0.355		
		Gy		0.520	0.550	0.580		
	Blue	Bx		0.125	0.155	0.185		
		By		0.110	0.140	0.170		
	White	Wx		0.283	0.313	0.343		
		Wy		0.299	0.329	0.359		
NTSC		%		-	45	-		

Note 1: 5 points position (Ref: Active area)
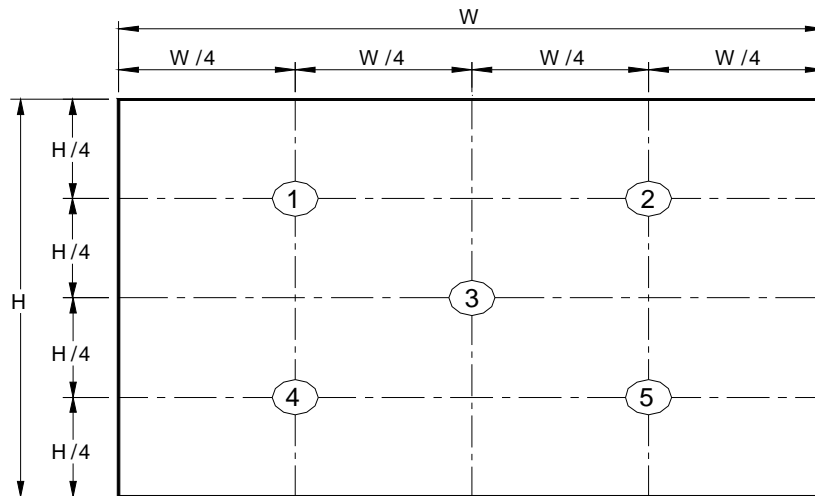
Note 2: 13 points position (Ref: Active area)
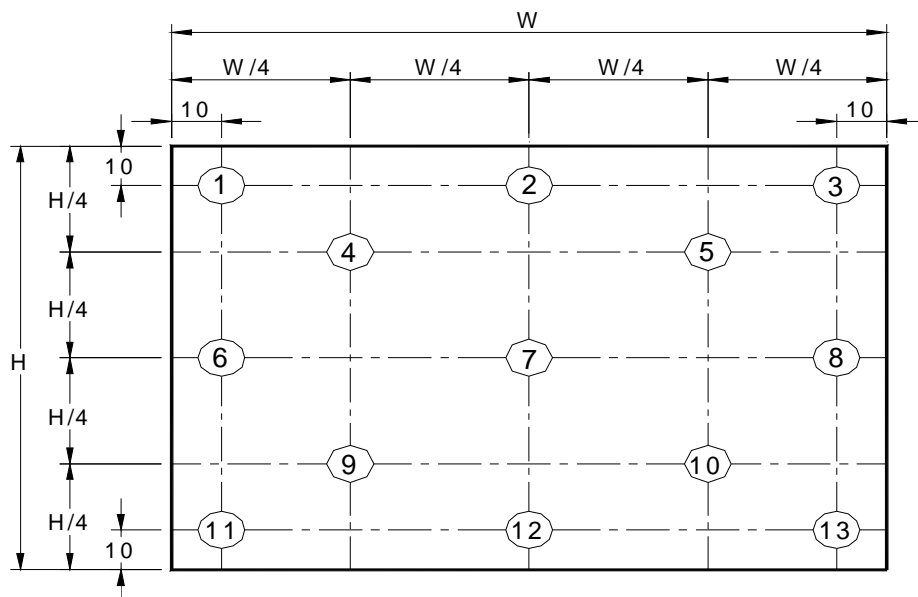
Note 3: The luminance uniformity of 5 or13 points is defined by dividing the maximum luminance values by the minimum test point luminance

$$\delta_{W5} = \frac{\text{Maximum Brightness of five points}}{\text{Minimum Brightness of five points}}$$

$$\delta_{W13} = \frac{\text{Maximum Brightness of thirteen points}}{\text{Minimum Brightness of thirteen points}}$$

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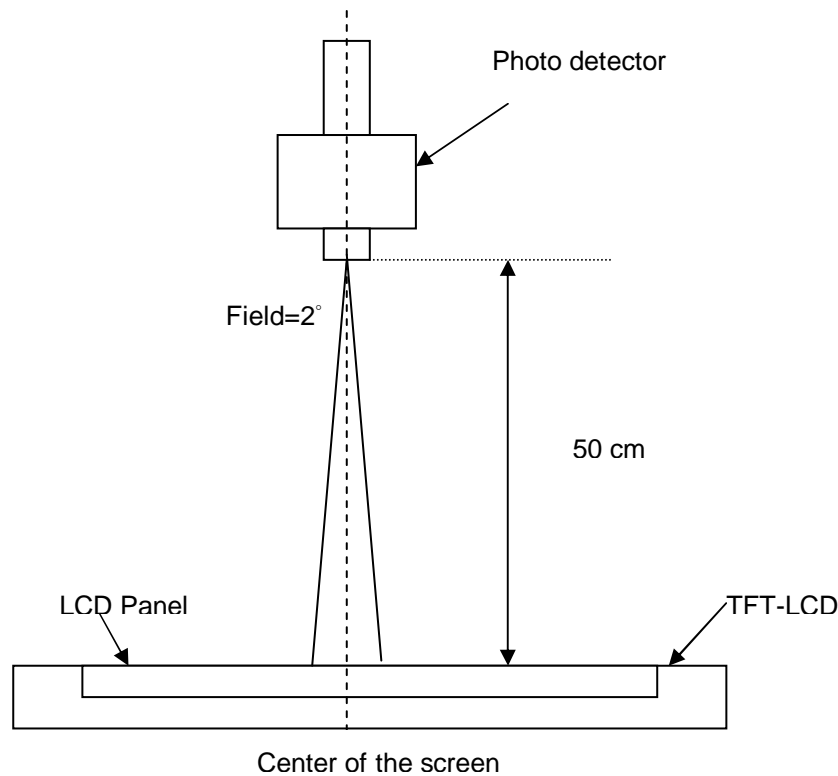
Note 5： Definition of Average Luminance of White (Y_L):

Measure the luminance of gray level 63 at 5 points，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.

$$\text{Contrast ratio (CR)} = \frac{\text{Brightness on the "White" state}}{\text{Brightness on the "Black" state}}$$
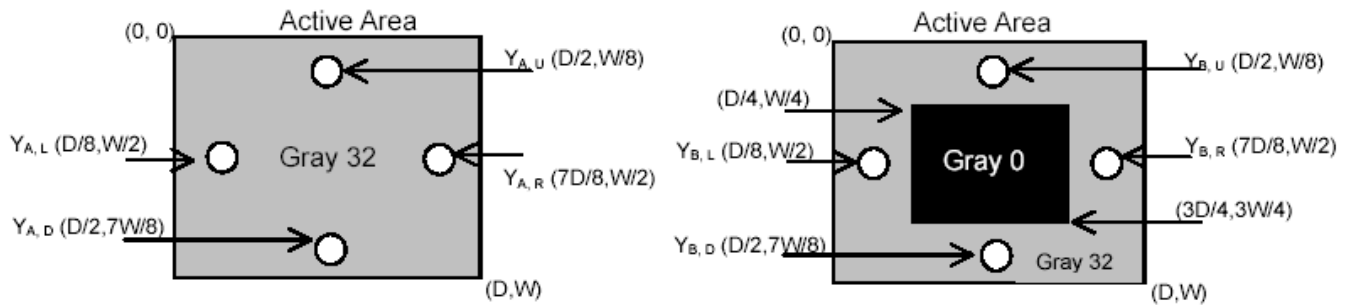
Note 7： Definition of Cross Talk (CT)

CT = | Y_B – Y_A | / Y_A × 100 (%)

Where

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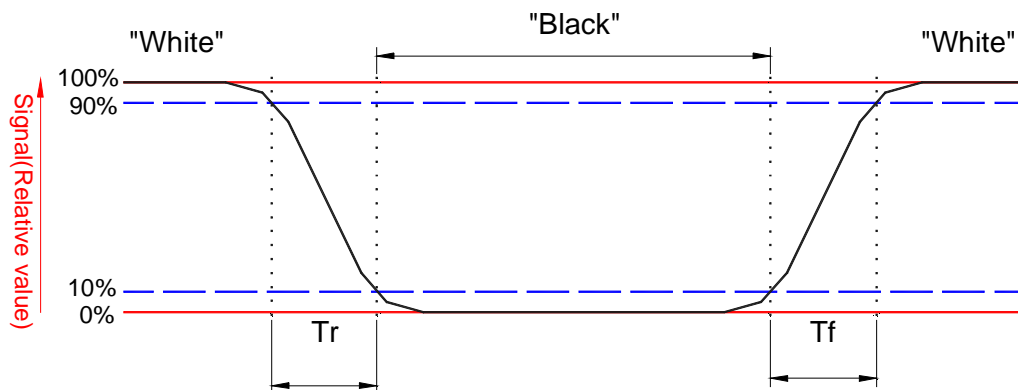
Y_B = Luminance of measured location with gray level 0 pattern (cd/m2)

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.

Note 9. Definition of viewing angle

Viewing angle is the measurement of contrast ratio ≥ 10, at the screen center, over a 180° horizontal an d 180° vertical range (off-normal viewing angles). Th e 180° viewing angle range is broken down as follow s; 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.
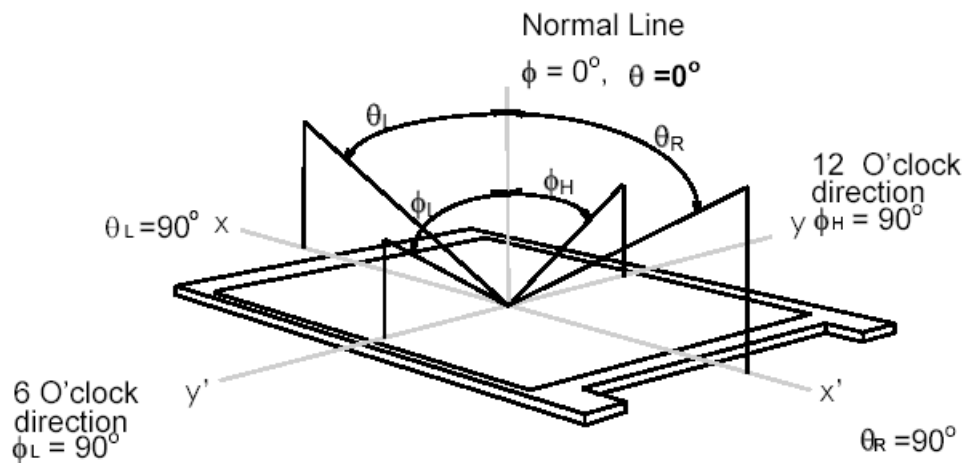
3. Functional Block Diagram

The following diagram shows the functional block of the 11.6 inches wide Color TFT/LCD 40 Pin one channel Module
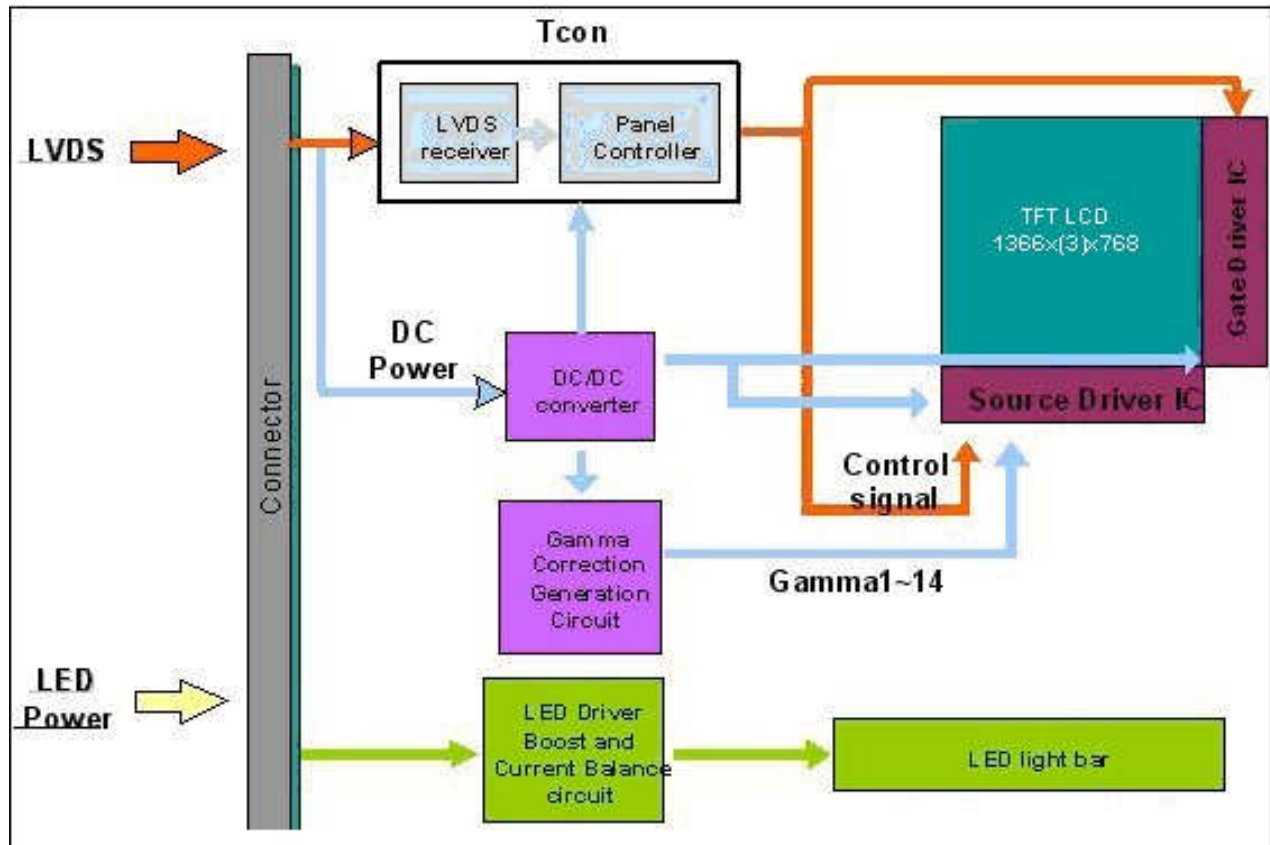
4. Absolute Maximum Ratings

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 Environment

Item	Symbol	Min	Max	Unit	Conditions
Operating Temperature	TOP	0	+50	[^{o}C]	Note 4
Operation Humidity	HOP	8	95	[%RH]	Note 4
Storage Temperature	TST	-20	+60	[^{o}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).
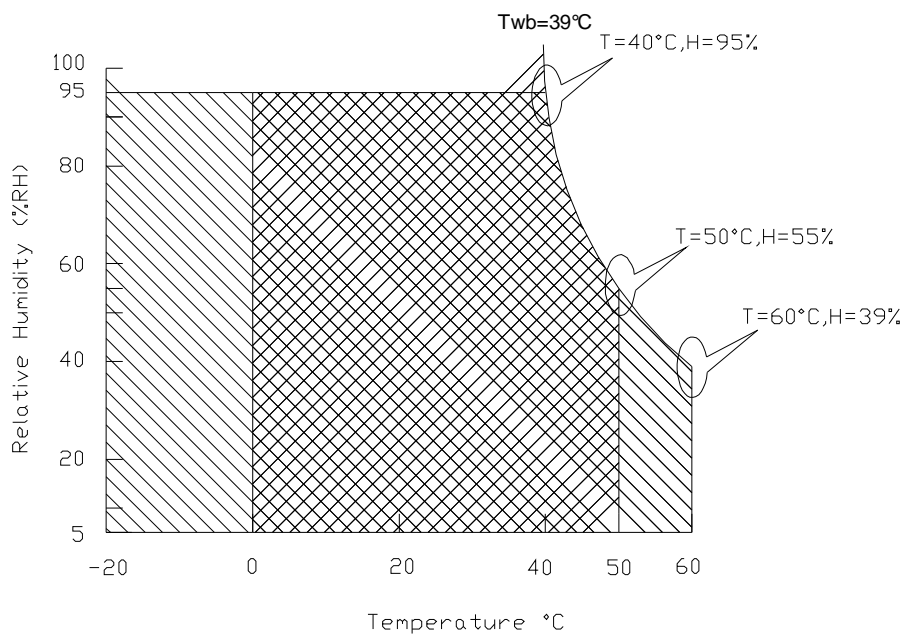
Operating Range ⊠⊠⊠   Storage Range   ⊠⊠⊠ + ⧄⧄⧄

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℃ and frame frenquency under 60Hz

Symble	Parameter	Min	Typ	Max	Units	Note
VDD	Logic/LCD Drive Voltage	3.0	3.3	3.6	[Volt]	
PDD	VDD Power	-	-	0.8	[Watt]	Note 1
IDD	IDD Current	-	-	450	[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
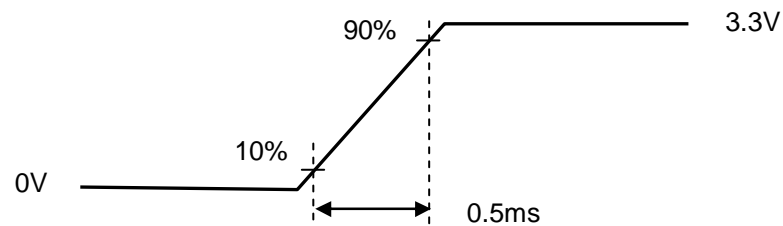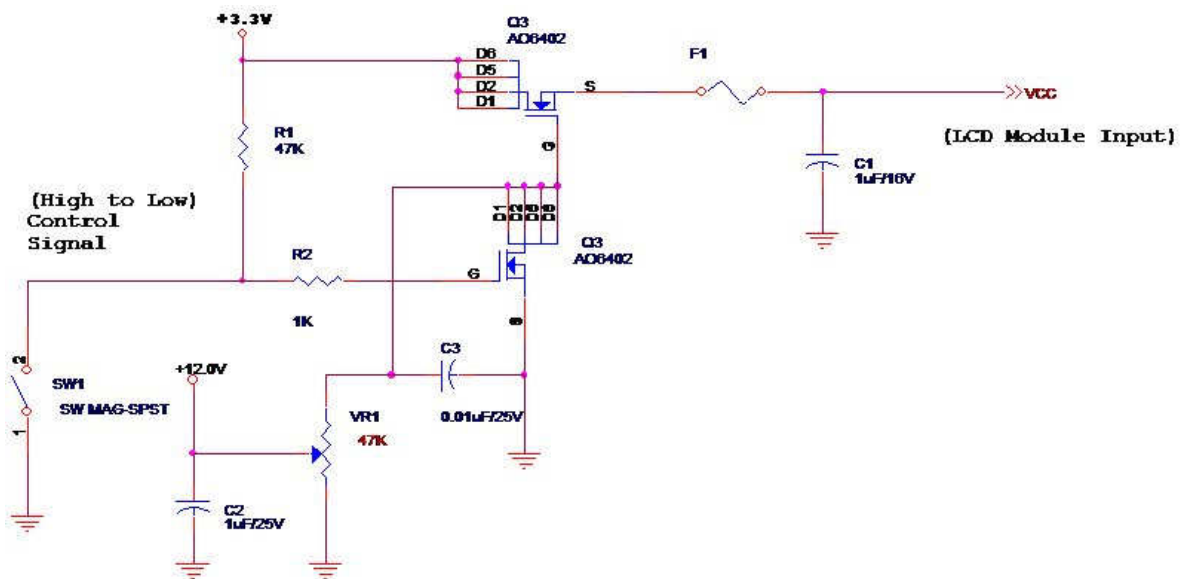
Vin rising time

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
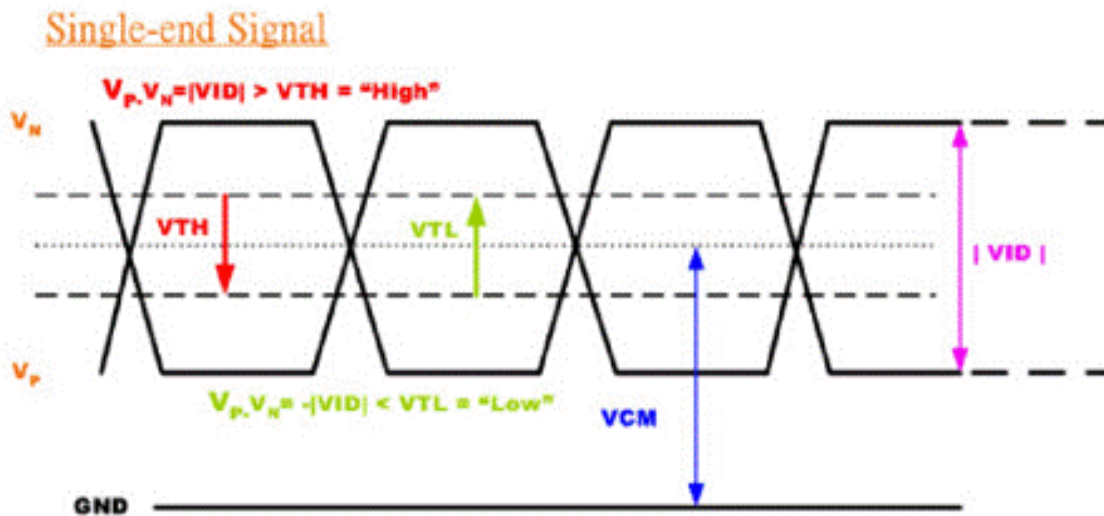
5.2 Backlight Unit

5.2.1 LED characteristics

Parameter	Symbol	Min	Typ	Max	Units	Condition
Backlight Power Consumption	PLED	-	-	2.76	[Watt]	(Ta=25℃), Note 1 Vin =12V
LED Life-Time	N/A	10,000	-	-	Hour	(Ta=25℃), Note 2 I_F=20 mA

Note 1: Calculator value for reference P_{LED} = V_F (Normal Distribution) * I_F (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	Typ	Max	Units	Remark
LED Power Supply	VLED	6.0	12.0	21.0	[Volt]	
LED Enable Input High Level	VLED_EN	2.5	-	5.5	[Volt]	
LED Enable Input Low Level		-	-	0.8	[Volt]	Define as Connector Interface (Ta=25℃)
PWM Logic Input High Level	VPWM_EN	2.5	-	5.5	[Volt]	
PWM Logic Input Low Level		-	-	0.8	[Volt]	
PWM Input Frequency	FPWM	100	1K	20K	Hz	
PWM Duty Ratio	Duty	1 (note1)	--	100	%	

Note 1: For 1% duty ratio Max PWM dimming frequency must not exceed 5 kHz.

6. Signal Interface Characteristic

6.1 Pixel Format Image

Following figure shows the relationship of the input signals and LCD pixel format.
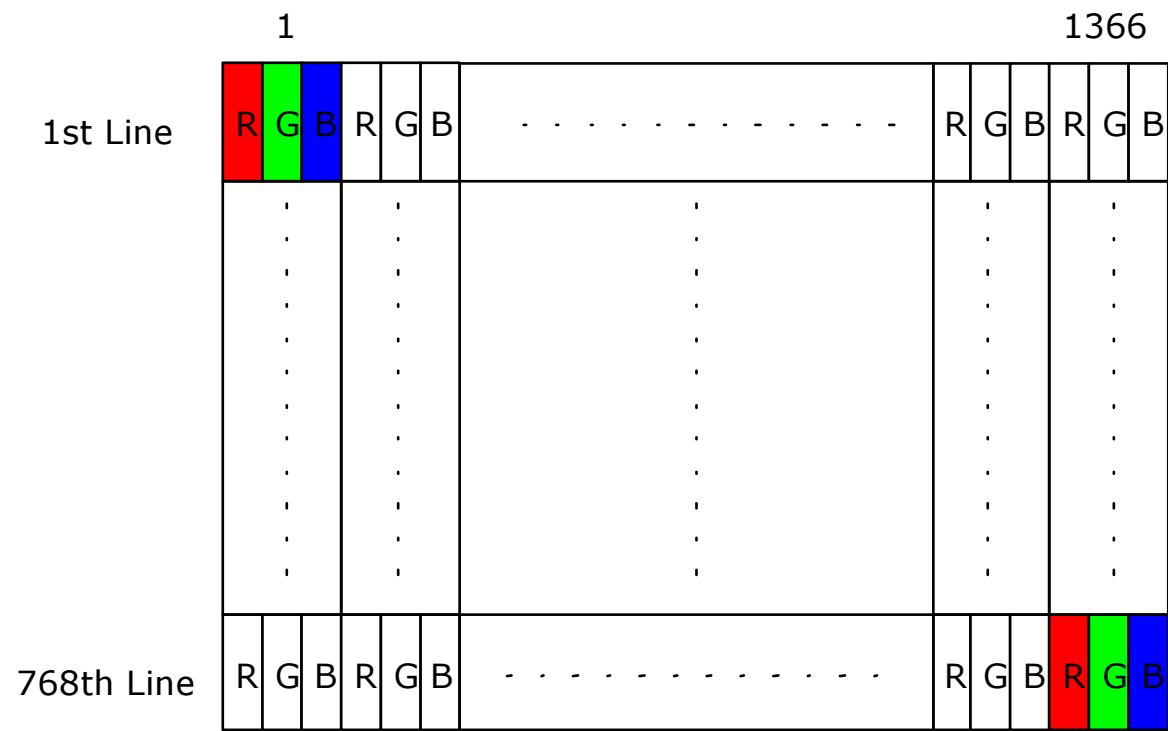
6.2 The Input Data Format

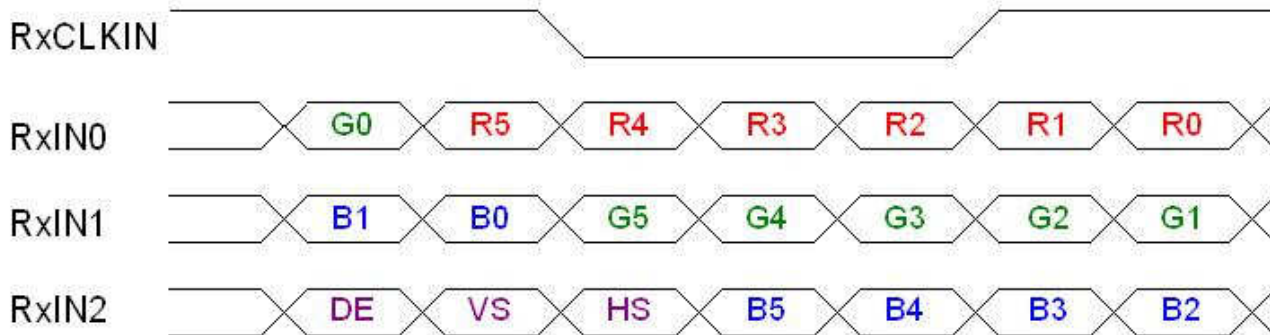| Signal Name	Description	
R5 R4 R3 R2 R1 R0	Red Data 5 (MSB) Red Data 4 Red Data 3 Red Data 2 Red Data 1 Red Data 0 (LSB) Red-pixel Data	Red-pixel Data Each red pixel's brightness data consists of these 6 bits pixel data.
G5 G4 G3 G2 G1 G0	Green Data 5 (MSB) Green Data 4 Green Data 3 Green Data 2 Green Data 1 Green Data 0 (LSB) Green-pixel Data	Green-pixel Data Each green pixel's brightness data consists of these 6 bits pixel data.
B5 B4 B3 B2 B1 B0	Blue Data 5 (MSB) Blue Data 4 Blue Data 3 Blue Data 2 Blue Data 1 Blue Data 0 (LSB) Blue-pixel Data	Blue-pixel Data Each blue pixel's brightness data consists of these 6 bits 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 20353-040T-11 or 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	VSS	Ground
20	NC	No connection
21	NC	No connection
22	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	NC	No Connection (Reserve)
38	VLED	LED Power Supply
39	VLED	LED Power Supply
40	VLED	LED Power Supply
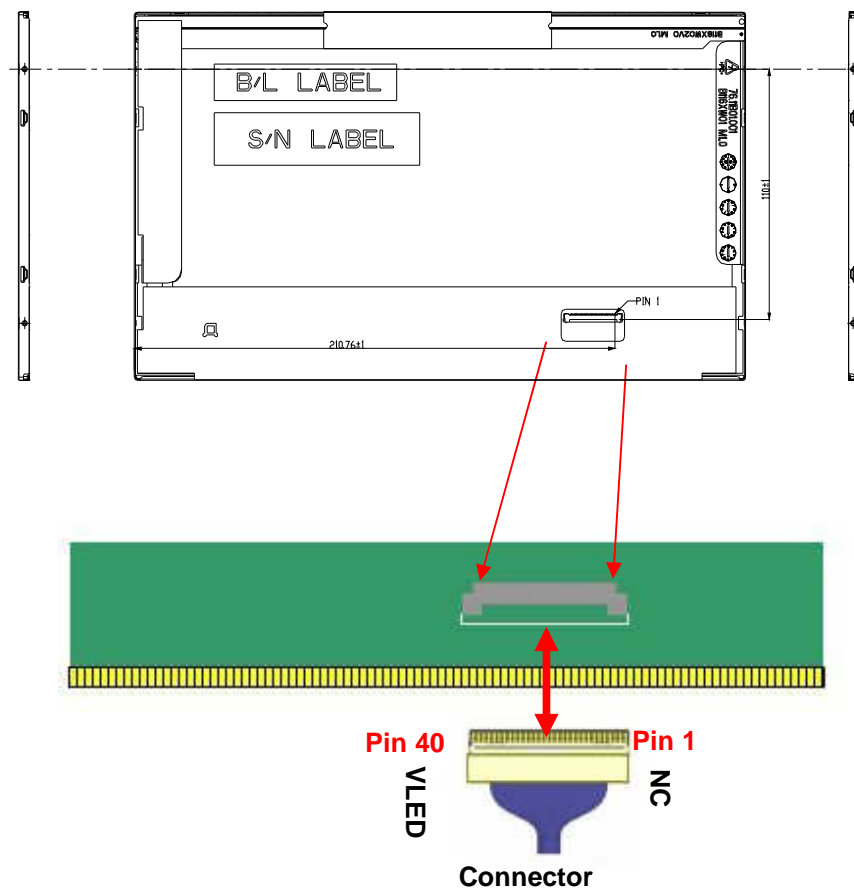
Note1: Input signals shall be low or High-impedance state when VDD is off.
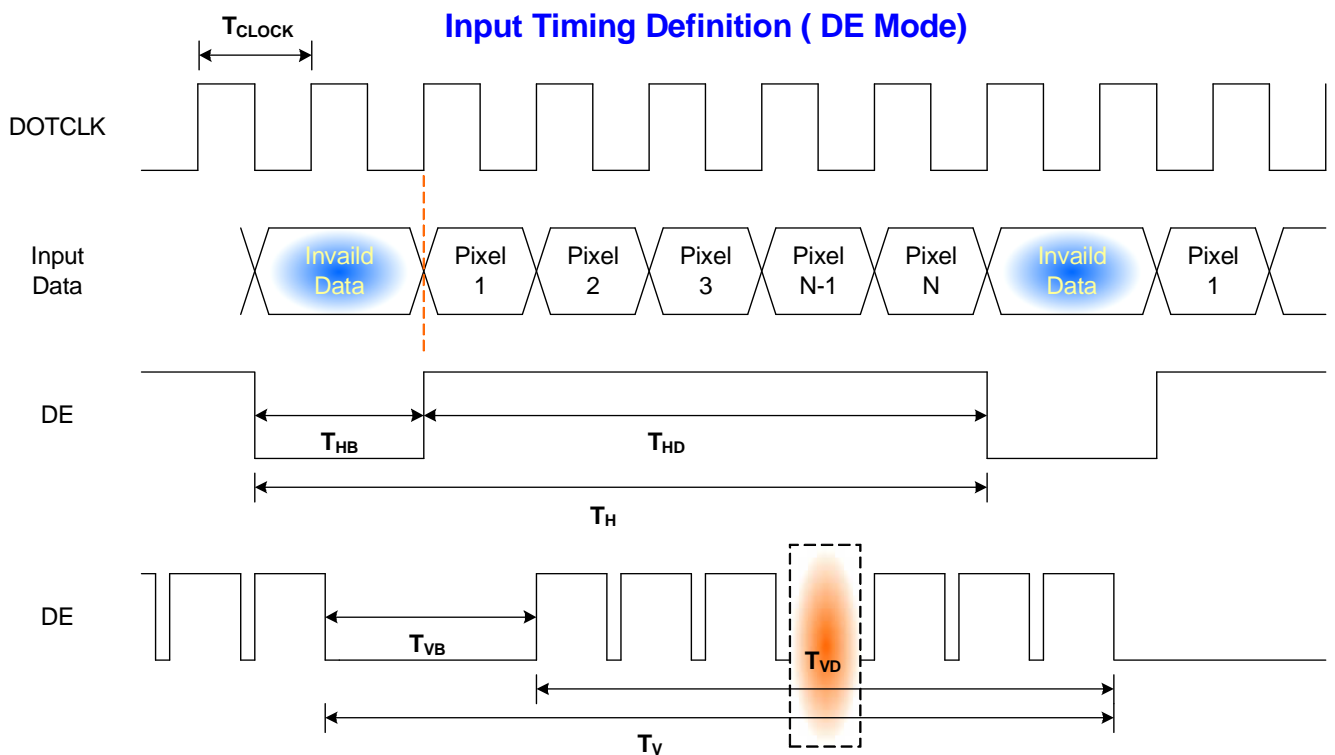
6.4 Interface Timing

6.4.1 Timing Characteristics

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

| Parameter		Symbol	Min.	Typ.	Max.	Unit
Frame Rate		-	50	60	-	**Hz**
Clock frequency		1/ T_{Clock}	50	72.42	80	**MHz**
Vertical Section	**Period**	T_V	776	791	1000	T_{Line}
	Active	T_{VD}		768		
	Blanking	T_{VB}	8	23	232	
Horizontal Section	**Period**	T_H	1426	1526	2000	T_{Clock}
	Active	T_{HD}		1366		
	Blanking	T_{HB}	60	160	634	

Note : DE mode only

6.4.2 Timing diagram

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
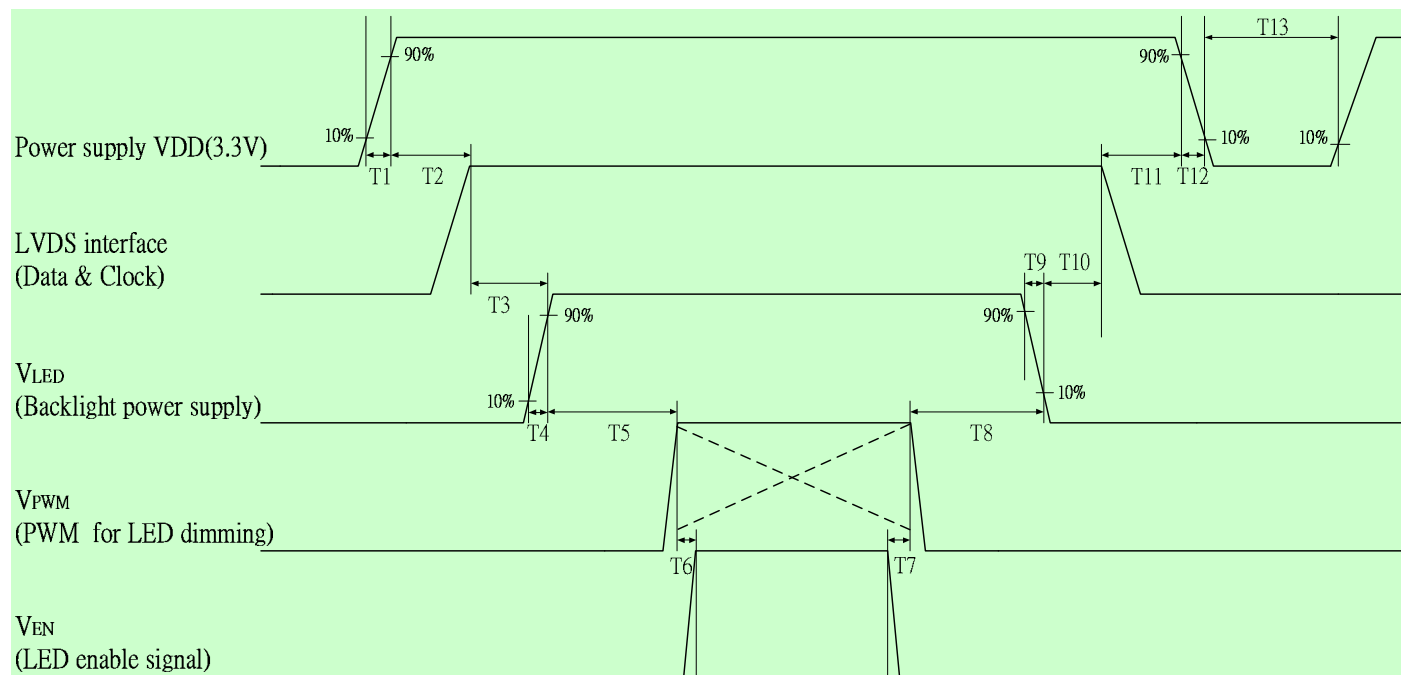
Power Sequence Timing				
	Value			
Parameter	**Min.**	**Typ.**	**Max.**	**Units**
T1	0.5	-	10	ms
T2	0	-	50	
T3	200	-	-	
T4	0	-	-	
T5	0	-	-	
T6	0	-	10	
T7	150	-	-	
T8	0	-	-	
T9	0	-	-	
T10	0	-	-	
T11	0	-	-	
T12	0.5	-	-	
T13	0	-	-	

Note:If T3,T5,T6 couldn't match above specifications, must request T3+T5+T6 > 200ms at least

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** **Air : ±15 KV**	Note 1

Note1: According to EN 61000-4-2 , ESD class B: Some performance degradation allowed. No data lost

. Self-recoverable. No hardware failures.

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

8. Mechanical Characteristics

8.1 LCM Outline Dimension

BLU BARCODE AREA

S/N LABEL

(23)

(90)

35±5

35±5

I-PEX 20455-040E-12R
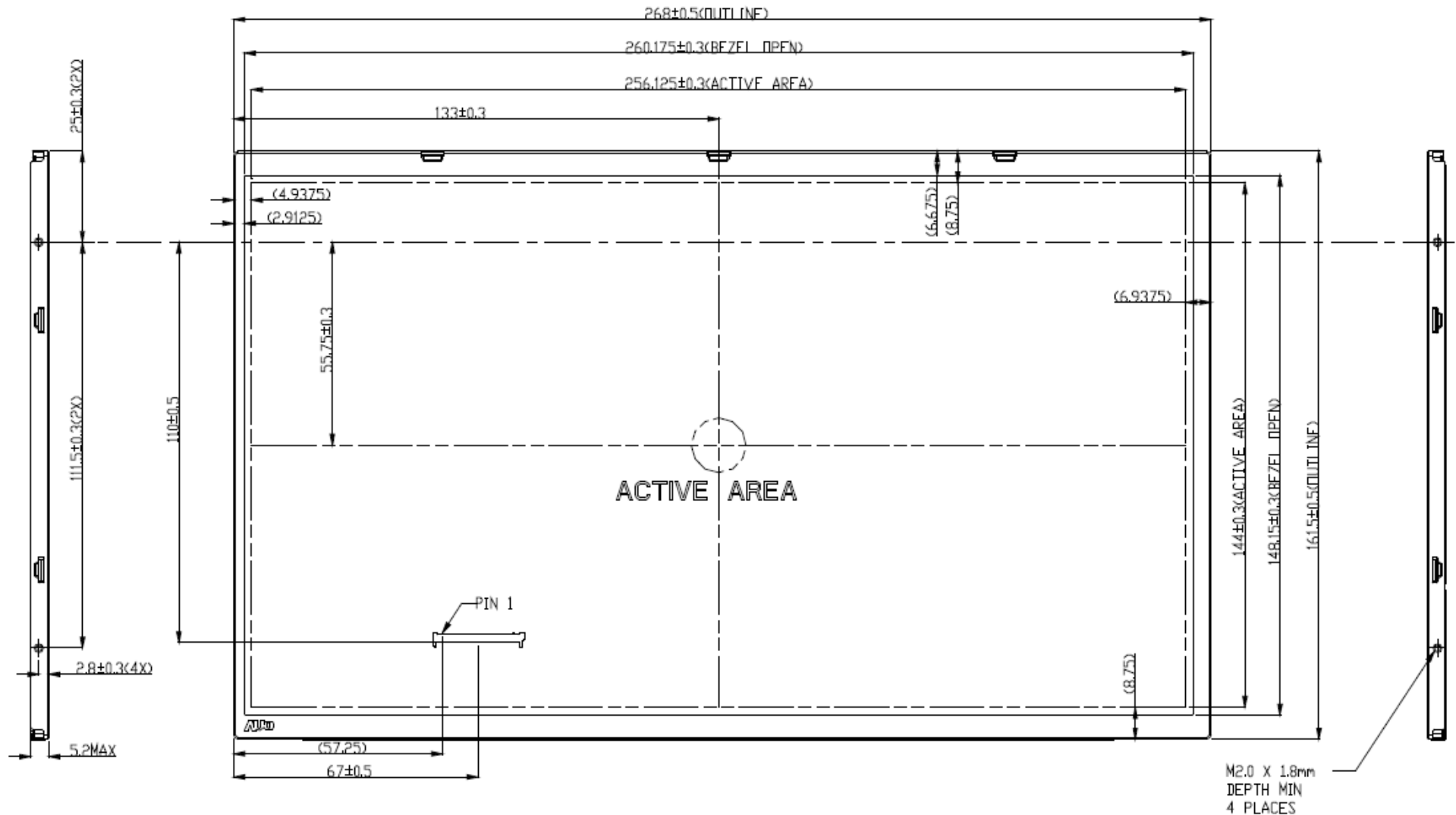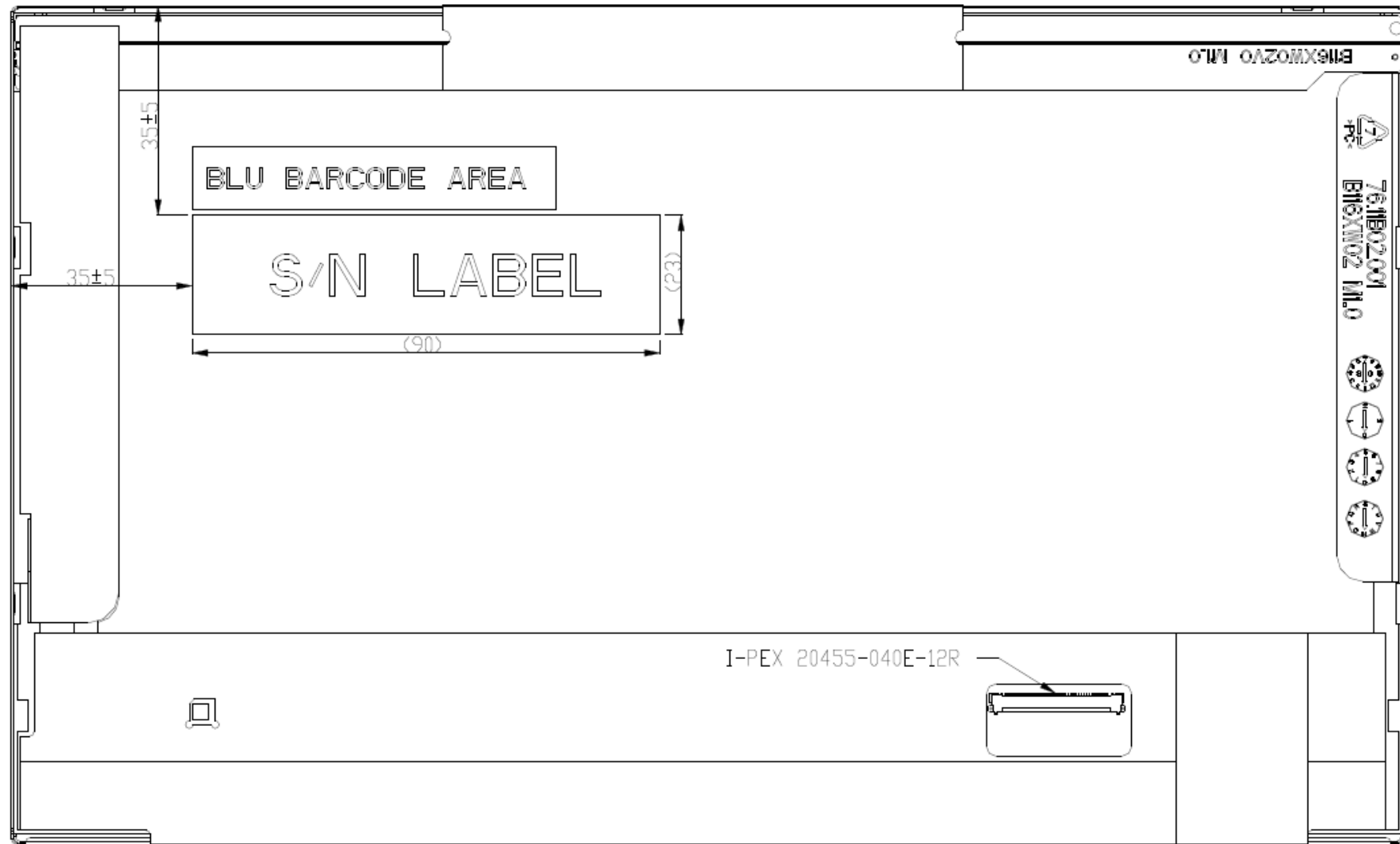
Note: Prevention IC damage, IC positions not allowed any overlap over these areas.
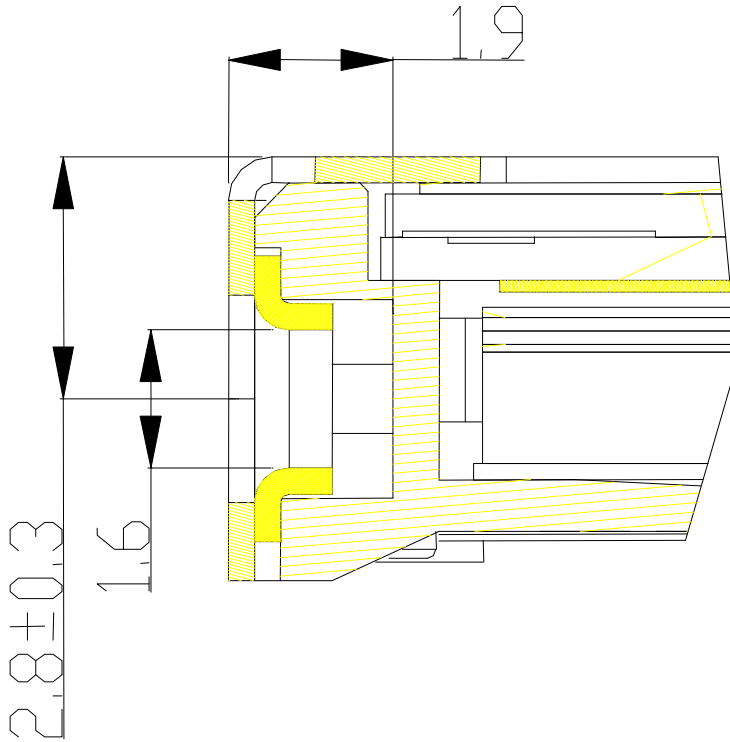
8.2 Screw Hole Depth and Center Position

Maximum Screw penetration from side surface is 1.9 mm

The center of screw hole center location is 2.8 ± 0.3 mm from front surface

Screw Torque: Maximum 2.5 kgf-cm

9. Shipping and Package

9.1 Shipping Label Format

Size :90 mm(length) x35mm(width)

9.2 Carton Package

AU Optronics

QTY: 35

MODEL NO: B116XW02 V1
PART NO: 97.11B02.101
CUSTOMER NO: P/N 27R2424
CARTON NO:

RoHS Pb

Made in XXXXXX   *xxxxx-xxxxxxxxxx*

40

80

The outside dimension of carton is 405(L)mm* 375(W)mm* 268(H)mm, carton and cushion weight are 2080g
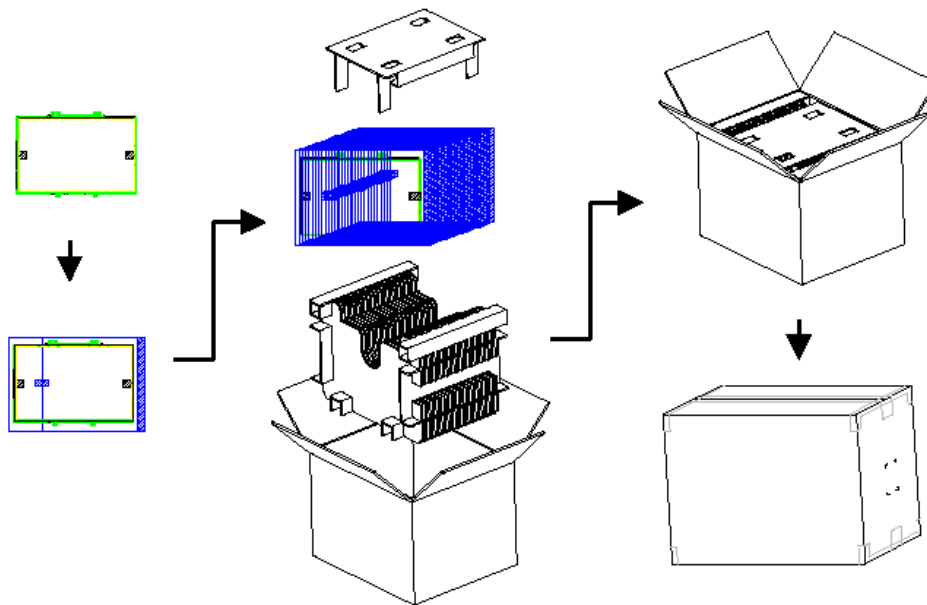
9.3 Shipping Package of Palletizing Sequence

The outside dimension of Pallet is 114(L)mm* 89(W)mm* 13.8(H)mm

By air : 6 *5 layers, one pallet put 30 boxes, total 900 pcs module.

By sea : 6 *7 layers, one pallet put 42 boxes, total 1260 pcs module.

Top cardboard

Stretch film

Label

PET band

Corner angle

Bottom cardboard

pallet

10. Appendix: EDID Description

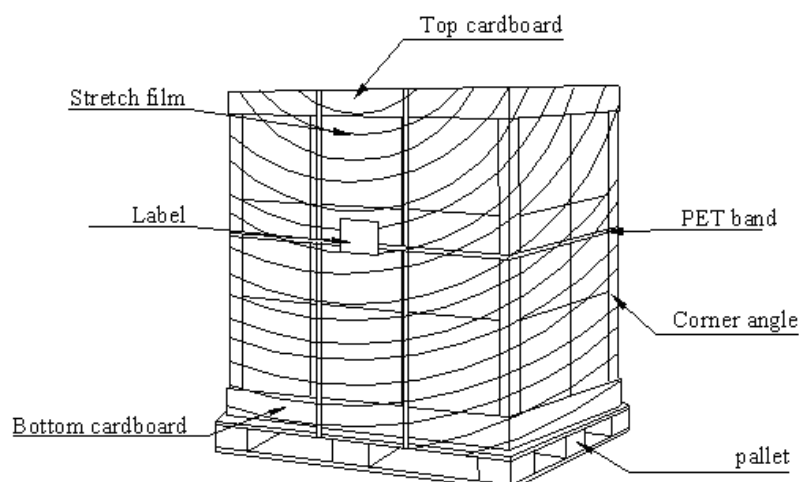| Address	FUNCTION	Value	Value	Value	Note
HEX		HEX	BIN	DEC	
00	Header	00	00000000	0	
01	Header	FF	11111111	255	
02	Header	FF	11111111	255	
03	Header	FF	11111111	255	
04	Header	FF	11111111	255	
05	Header	FF	11111111	255	
06	Header	FF	11111111	255	
07	Header	00	00000000	0	
08	ID Manufacturer Name	30	00110000	48	
09		AE	10101110	174	
0A	ID Product Code	D1	11010001	209	
0B		40	01000000	64	
0C	ID Serial Number (32-bit serial number)	00	00000000	0	
0D		00	00000000	0	
0E		00	00000000	0	
0F		00	00000000	0	
10	Week of Manufacture	01	00000001	1	
11	Year of Manufacture	13	00010011	19	
12	EDID Structure version	01	00000001	1	
13	EDID Revision	03	00000011	3	
14	Video Input Definition	80	10000000	128	
15	Max H Image Size(cm)	1A	00011010	26	
16	Max V Image Size(cm)	0E	00001110	14	
17	Display gamma (gamma x 100)-100	78	01111000	120	
18	Feature support(DPMS)	EA	11101010	234	
19	Red/Green Low Bits	99	10011001	153	
1A	Blue/White Low Bits	85	10000101	133	
1B	Red x	95	10010101	149	
1C	Red y	55	01010101	85	
1D	Green x	56	01010110	86	
1E	Green y	92	10010010	146	
1F	Blue x	28	00101000	40	
20	Blue y	22	00100010	34	
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	Manufacturer's Timings	00	00000000	0	
26	Standard Timing Identification #1	01	00000001	1	
27		01	00000001	1	
28	Standard Timing Identification #2	01	00000001	1	
29		01	00000001	1	
2A	Standard Timing Identification #3	01	00000001	1	

2B		01	00000001	1	
2C	Standard Timing Identification #4	01	00000001	1	
2D		01	00000001	1	
2E	Standard Timing Identification #5	01	00000001	1	
2F		01	00000001	1	
30	Standard Timing Identification #6	01	00000001	1	
31		01	00000001	1	
32	Standard Timing Identification #7	01	00000001	1	
33		01	00000001	1	
34	Standard Timing Identification #8	01	00000001	1	
35		01	00000001	1	
36	Pixel Clock/10,000 (LSB)	96	10010110	150	
37	Pixel Clock/10,000 (MSB) /	19	00011001	25	
38	Horizontal Active	56	01010110	86	
39	Horizontal Blanking	28	00101000	40	
3A	Horizontal Active : Horizontal Blanking	50	01010000	80	
3B	Vertical Active	00	00000000	0	
3C	Vertical Blanking	08	00001000	8	
3D	Vertical Active : Vertical Blanking	30	00110000	48	
3E	Horizontal Sync. Offset	18	00011000	24	
3F	Horizontal Sync Pulse Width	10	00010000	16	
40	Vertical Sync Offset : Sync Width	24	00100100	36	
41	Horizontal Vertical Sync Offset/Width upper 2bits	00	00000000	0	
42	Horizontal Image Size	00	00000000	0	
43	Vertical Image Size	90	10010000	144	
44	Horizontal & Vertical Image Size	10	00010000	16	
45	Horizontal Border	00	00000000	0	
46	Vertical Border	00	00000000	0	
47	Flags	18	00011000	24	
48	Pixel Clock/10,000 (LSB) (Slow Refresh rate)	52	01010010	82	50Hz
49	Pixel Clock/10,000 (MSB) / (Slow Refresh rate)	15	00010101	21	
4A	Horizontal Active	56	01010110	86	
4B	Horizontal Blanking	28	00101000	40	
4C	Horizontal Active : Horizontal Blanking	50	01010000	80	
4D	Vertical Active	00	00000000	0	
4E	Vertical Blanking	08	00001000	8	
4F	Vertical Active : Vertical Blanking	30	00110000	48	
50	Horizontal Sync. Offset	18	00011000	24	
51	Horizontal Sync Pulse Width	10	00010000	16	
52	Vertical Sync Offset : Sync Width	24	00100100	36	
53	Horizontal Vertical Sync Offset/Width upper 2bits = 0	00	00000000	0	
54	Horizontal Image Size	00	00000000	0	
55	Vertical Image Size	90	10010000	144	
56	Horizontal & Vertical Image Size	10	00010000	16	
57	Horizontal Border	00	00000000	0	

58	Vertical Border	00	00000000	0	
59	Flags	18	00011000	24	
5A	Flag	00	00000000	0	
5B	Flag	00	00000000	0	
5C	Flag	00	00000000	0	
5D	Data Type Tag	0F	00001111	15	
5E	Flag	00	00000000	0	
5F	(Horizontal active pixel /8)-31	8C	10001100	140	
60	Image Aspect Ratio	09	00001001	9	
61	Middle Refresh Rate	32	00110010	50	
62	(Horizontal active pixel /8)-31	8C	10001100	140	
63	Image Aspect Ratio	09	00001001	9	
64	Low Refresh Rate	28	00101000	40	
65	Brightness(1/10nit)	14	00010100	20	
66	Feature flag	09	00001001	9	
67	Reserved	00	00000000	0	
68	LCD Supplier manufacture Code (3 character ID)	06	00000110	6	
69		AF	10101111	175	
6A	LCD Supplier Product code	56	01010110	86	
6B	LCD Supplier Product code	31	00110001	49	
6C	Flag	00	00000000	0	
6D	Flag	00	00000000	0	
6E	Flag	00	00000000	0	
6F	Data Type Tag	FE	11111110	254	
70	Flag	00	00000000	0	
71	Model Name	42	01000010	66	B
72	Model Name	31	00110001	49	1
73	Model Name	31	00110001	49	1
74	Model Name	36	00110110	54	6
75	Model Name	58	01011000	88	X
76	Model Name	57	01010111	87	W
77	Model Name	30	00110000	48	0
78	Model Name	32	00110010	50	2
79	Model Name	20	00100000	32	
7A	Model Name	56	01010110	86	V
7B	Model Name	31	00110001	49	1
7C	Model Name	20	00100000	32	
7D	Model Name	0A	00001010	10	
7E	Extension flag	00	00000000	0	
7F	Checksum	37	00110111	55	
		SUM		6656	