# Product Specification

AU OPTRONICS CORPORATION

**( ) Preliminary Specifications**
**(V ) Final Specifications**

| | |
|---|---|
| **Module** | 15.4” WXGA+ Color TFT-LCD |
| **Model Name** | B154PW04 V6 |

| **Customer** | **Date** | **Approved by** | **Date** |
|---|---|---|---|
| | | Jerry Chen | 12/07/2007 |
| **Checked & Approved by** | **Date** | **Prepared by** | **Date** |
| | | Wisdom Che | 12/07/2007 |
| Note: This Specification is subject to change without notice. | | **NBBU Marketing Division / AU Optronics corporation** | |

# Contents

# Record of Revision

| Version and Date | Page | Old description | New Description | Remark |
|---|---|---|---|---|
| 0.1 2007/12/7 | 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) In case if a Module has to be put back into the packing container slot after once it was taken out from the container, do not press the center of the LED lamp Reflector edge. Instead, press at the far ends of the LED lamp Reflector edge softly. Otherwise the TFT Module may be damaged.
10) 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) The LCD module is designed so that the LED in it is supplied by Limited Current Circuit (IEC60950 or UL1950). Do not connect the LED in Hazardous Voltage Circuit.

## 2. General Description

B154PW04 V6 is a Color Active Matrix Liquid Crystal Display composed of a TFT LCD panel, a driver circuit, and backlight system. The screen format is intended to support the WXGA+ (1440(H) x 900(V)) screen and 262k colors (RGB 6-bits data driver) without backlight inverter. All input signals are LVDS interface compatible.

B154PW04 V6 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] | 391 (15.4W") |
| Active Area | [mm] | 331.560 (H) X 207.225 (V) |
| Pixels H x V | | 1440x3(RGB) x 900 |
| Pixel Pitch | [mm] | 0.23025X0.23025 |
| Pixel Format | | R.G.B. Vertical Stripe |
| Display Mode | | Normally White |
| White Luminance ($I_{LED}$=19mA)<br>Note: $I_{LED}$ is lamp current | [cd/m$^2$] | 300 typ.(160 points average)<br>270 min.(160 points average)<br>(Note1) |
| Luminance Uniformity | | 2 max. (160 points) |
| Contrast Ratio | | 500 typ |
| Response Time | [ms] | 16 typ |
| Nominal Input Voltage VDD | [Volt] | +3.3 typ. |
| Power Consumption | [Watt] | 5.8 max. |
| Weight | [Grams] | 450 max. |
| Physical Size | [mm] | <table><tr><td></td><td>L</td><td>W</td><td>T</td></tr><tr><td>Max</td><td>344.3</td><td>222.3</td><td>6.1</td></tr><tr><td>Typical</td><td>344.0</td><td>222.0</td><td>-</td></tr><tr><td>Min</td><td>343.7</td><td>221.7</td><td>-</td></tr></table> |
| Electrical Interface | | Dual channel LVDS |
| Surface Treatment | | Anti-Glare, Hardness 3H, |

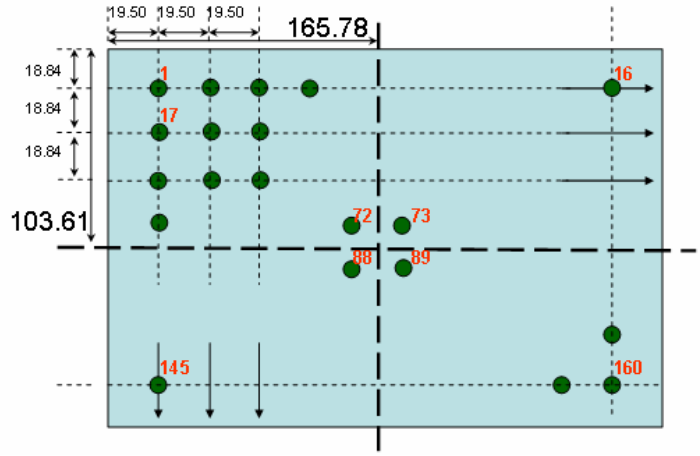
| | | |
|---|---|---|
| Support Color | | 262K colors ( RGB 6-bit ) |
| Temperature Range<br>Operating<br>Storage (Non-Operating) | <br>[°C]<br>[°C] | <br>0 to +50<br>-25 to +65 |
| RoHS Compliance | | RoHS Compliance |

## 2.2 Optical Characteristics

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

| Item | Unit | Conditions | Min. | Typ. | Max. | Note |
|---|---|---|---|---|---|---|
| **White Luminance $I_{LED}$=19mA** | **[cd/m$^2$]** | **160 points average** | **270** | **300** | **-** | 1, 4, 5. |
| **Viewing Angle** | **[degree]**<br>**[degree]** | **Horizontal (Right)**<br>**CR = 10 (Left)** | **60**<br>**60** | **65**<br>**65** | **-**<br>**-** | 9 |
| | **[degree]**<br>**[degree]** | **Vertical (Upper)**<br>**CR = 10 (Lower)** | **50**<br>**60** | **55**<br>**65** | **-**<br>**-** | |
| **Luminance Uniformity** | | **160 Points** | **-** | **-** | **2** | 1, 2, 4 |
| **WNU** | | **Any one point amoung160 Points** | **-** | **-** | **2** | 1, 2, 4 |
| **CR: Contrast Ratio** | | | **400** | **500** | **-** | 1, 4, 6 |
| **Cross talk** | **%** | | | | **4** | 7 |
| **Response Time** | **[msec]** | **Rising** | **-** | **8** | **12** | 8 |
| | **[msec]** | **Falling** | **-** | **23** | **28** | |
| | **[msec]** | **Rising + Falling** | **-** | **31** | **40** | |
| **Chromaticity of color Coordinates (CIE 1931)** | | **Red x** | **0.580** | **0.600** | **0.620** | 1,3,4 |
| | | **Red y** | **0.325** | **0.345** | **0.365** | |
| | | **Green x** | **0.300** | **0.320** | **0.340** | |
| | | **Green y** | **0.535** | **0.555** | **0.575** | |
| | | **Blue x** | **0.130** | **0.150** | **0.170** | |
| | | **Blue y** | **0.100** | **0.120** | **0.140** | |
| | | **White x** | **0.293** | **0.313** | **0.333** | |
| | | **White y** | **0.309** | **0.329** | **0.349** | |
| **NTSC** | **%** | **CIE 1931** | **-** | **45** | **-** | |

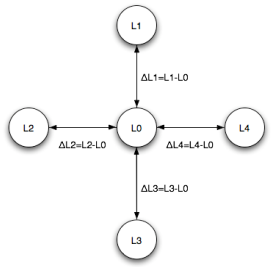
Note 1: 160 points position (Ref: Active area)




Note 2: The luminance uniformity of 160 points is defined by dividing the maximum luminance values by the minimum test point luminance

$$\delta_{W160} = \frac{\text{Maximum Brightness of thirteen points}}{\text{Minimum Brightness of thirteen points}}$$

Worst Neighbor Luminance Uniformity (The 4 points that are closest to the test point)




WNU=100%-Max( L1, L2, L3, L4)/L0

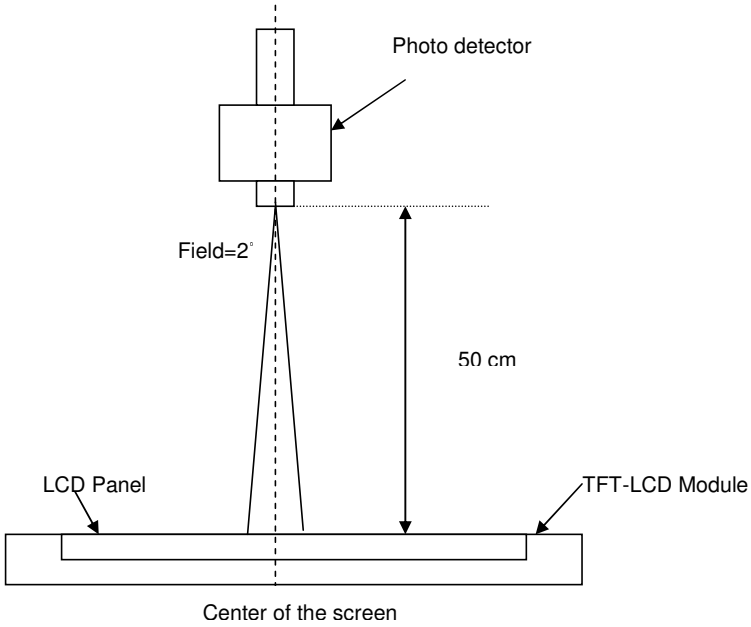
Global WNU = min (WNU1, …WNU160)

Note 3: Chromaticity of color Coordinates

Chromaticity is defined by the average of the color performance of points 72, 73,88,89

Color $_{center}$ =(Color$_{72}$+ Color$_{73}$+Color$_{88}$+ Color$_{89}$)/4

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.

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

$Y_L$ = SUM(L1:L160) / 160

where L1 to L160 are the luminance values measured at point #1 to #160.

Note 6： Definition of contrast ratio:

Contrast ratio is calculated with the following formula.

$$\text{Contrast ratio (CR)} = \frac{\text{Brightness of point 72 on the “White” state}}{\text{Brightness of point 72 on the “Black” state}}$$

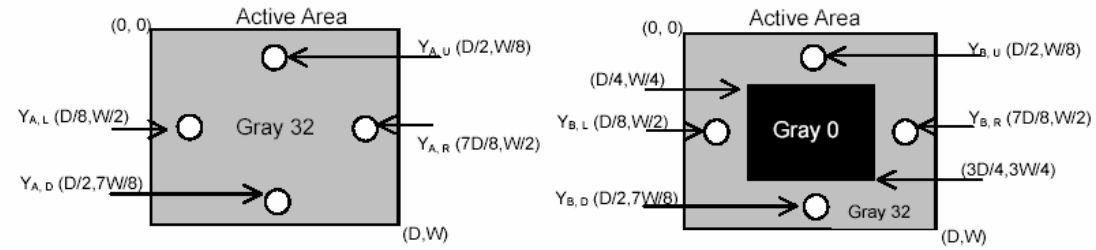
Note 7： Definition of Cross Talk (CT)

CT = | $Y_B$ – $Y_A$ | / $Y_A$ × 100 (%)

Where

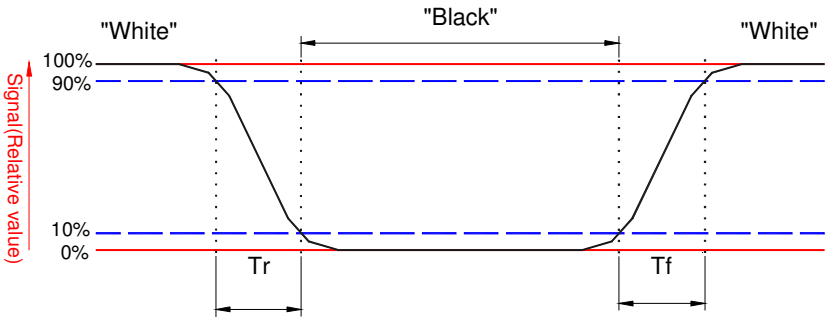
$Y_A$ = Luminance of measured location without gray level 0 pattern (cd/m2)

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



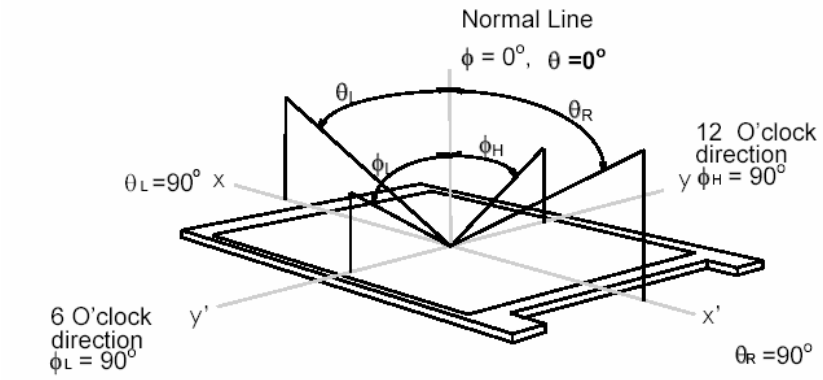

Note 8: Definition of response time:

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.



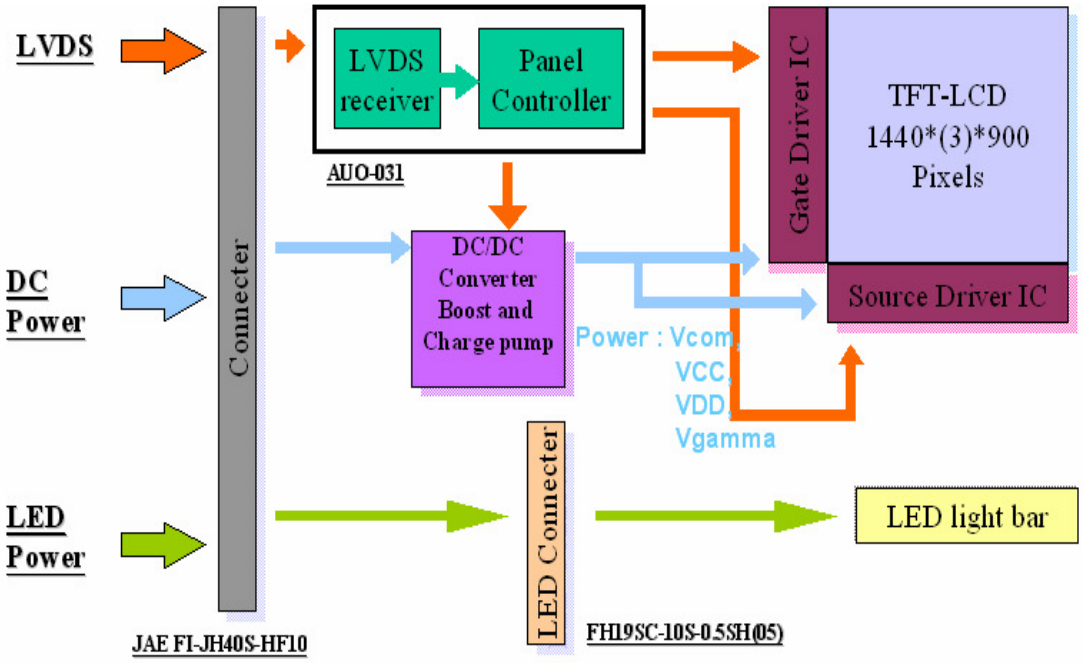
Note 9. Definition of viewing angle

Viewing angle is the measurement of contrast ratio ≧10, at the screen center, over a 180° horizontal 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 15.4 inches wide Color TFT/LCD 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 Voltage | Vin | -0.3 | +4.0 | [Volt] | Note 1,2 |

## 4.2 Absolute Ratings of Backlight Unit

| Item | Symbol | Min | Max | Unit | Conditions |
|---|---|---|---|---|---|
| LED Current | ILED | - | 20 | [mA] rms | Note 1,2 |

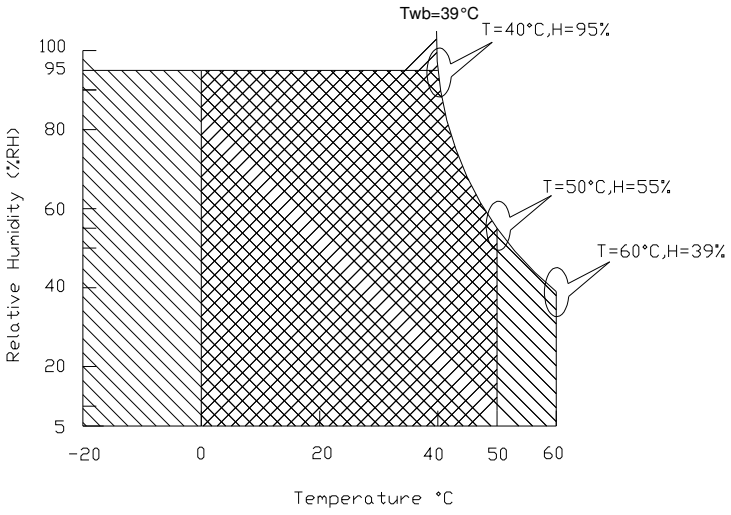
## 4.3 Absolute Ratings of Environment

| Item | Symbol | Min | Max | Unit | Conditions |
|---|---|---|---|---|---|
| Operating Temperature | TOP | 0 | +50 | [°C] | Note 3 |
| Operation Humidity | HOP | 5 | 95 | [%RH] | Note 3 |
| Storage Temperature | TST | -20 | +60 | [°C] | Note 3 |
| Storage Humidity | HST | 5 | 95 | [%RH] | Note 3 |

Note 1: At Ta (25℃ )

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

**Note 3: 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

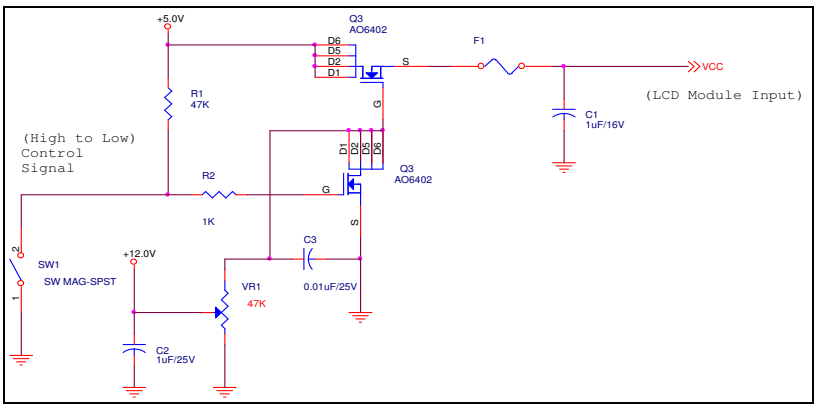
Input power specifications are as follows;

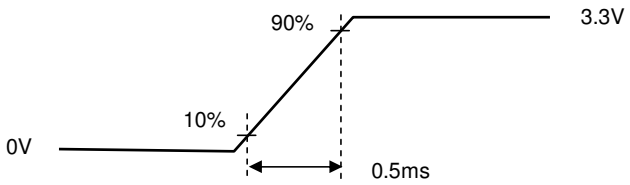
| Symble | Parameter | Min | Typ | Max | Units | Note |
|---|---|---|---|---|---|---|
| VDD | Logic/LCD Drive Voltage | 3.0 | 3.3 | 3.6 | [Volt] | |
| PDD | VDD Power | | | 1.7 | [Watt] | Note 1 |
| IDD | IDD Current | | 400 | 500 | [mA] | Note 1 |
| IRush | Inrush Current | | | 2000 | [mA] | Note 2 |
| VDDrp | Allowable Logic/LCD Drive Ripple Voltage | | | 100 | [mV] p-p | |

Note 1 : Maximum Measurement Condition：Black Pattern

Note 2：Typical Measurement Condition: Mosaic Pattern

Note 3：Measure Condition




Vin rising time

### 5.1.2 Signal Electrical Characteristics

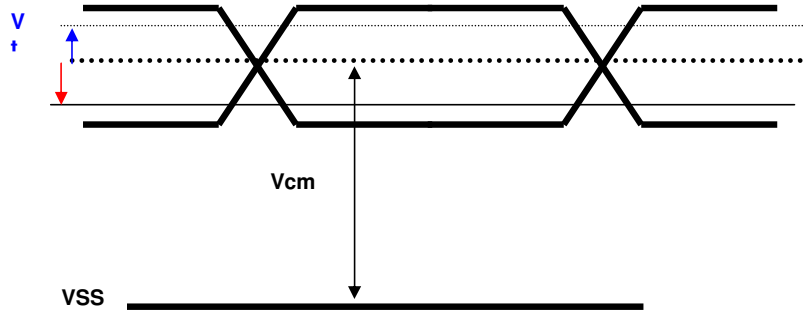
Input signals shall be low or High-impedance state when VDD is off.

It is recommended to refer the specifications of THC63LVDF84A (Thine Electronics Inc.) in detail.

Signal electrical characteristics are as follows;

| Parameter | Condition | Min | Max | Unit |
|---|---|---|---|---|
| Vth | Differential Input High Threshold (Vcm=+1.2V) | - | 100 | [mV] |
| Vtl | Differential Input Low Threshold (Vcm=+1.2V) | -100 | - | [mV] |
| Vcm | Differential Input Common Mode Voltage | 1.1 | 1.45 | [V] |

Note: LVDS Signal Waveform



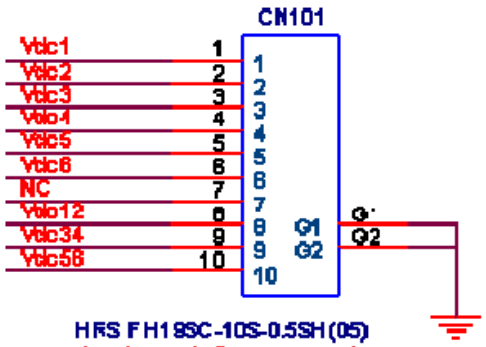
## 5.2 Backlight Unit

The BLU system is an edge type light source with LED (Light Emitting Diode) light bar

The BLU system is an edge type light soure with LED (Light Emitting Diode) light bar

| Item | Symbol | Min. | Typ. | Max. | Unit | Note |
|---|---|---|---|---|---|---|
| Fixed input current | $IL_t$ | | | | $mA_{rms}$ | Absolute maximum guarantee current |
| Input current | IL | | 20 | | $mA_{rms}$ | Current for each LED |
| Light bar Voltage | VL | | 3.3 | | $V_{rms}$ | |
| Light bar Power | PL | | 3.96 | | Watt | PL= ILxVLxLED NUMBER |

Light bar PIN assignment:

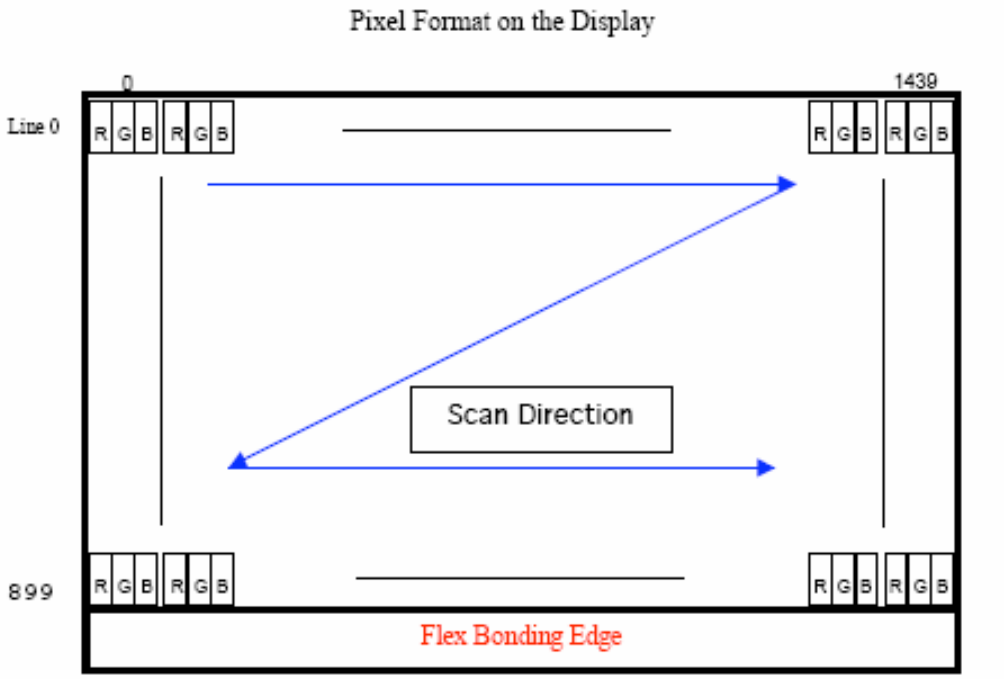



| PIN NO. | SYMBOL | FUNCTION |
|---|---|---|
| 1 | Vdc1 | LED Cathode (Negative) |
| 2 | Vdc2 | LED Cathode (Negative) |
| 3 | Vdc3 | LED Cathode (Negative) |
| 4 | Vdc4 | LED Cathode (Negative) |
| 5 | Vdc5 | LED Cathode (Negative) |
| 6 | Vdc6 | LED Cathode (Negative) |
| 7 | NC | NC |
| 8 | Vdc(1&2) | LED Anode (Positive) |
| 9 | Vdc(3&4) | LED Anode (Positive) |
| 10 | Vdc(5&6) | LED Anode (Positive) |

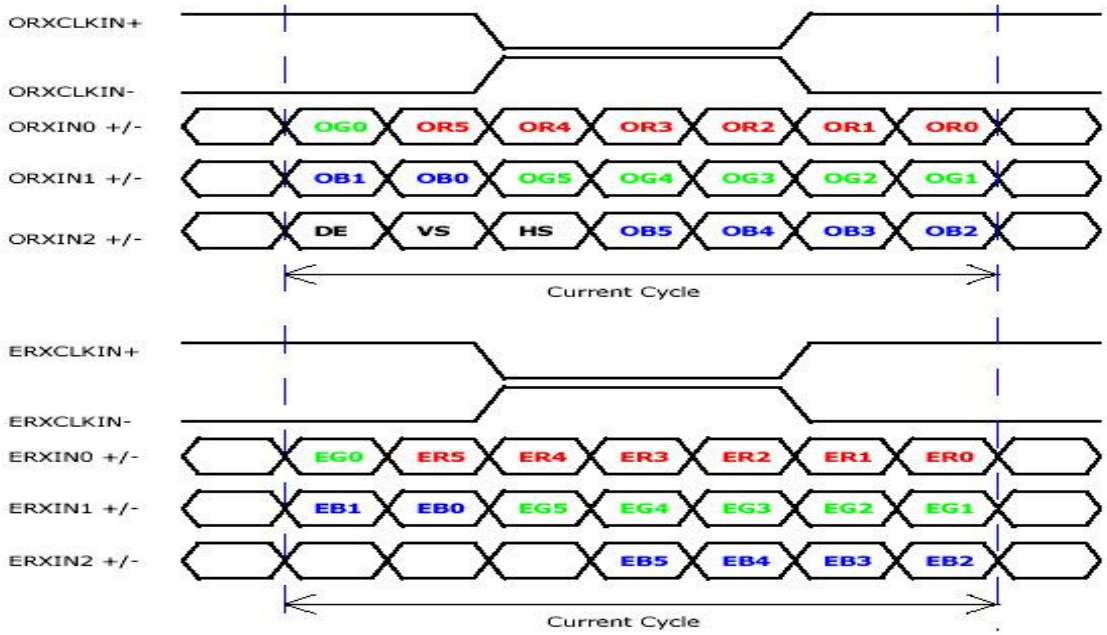
# 6. Signal Characteristic

## 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 |
|---|---|
| **VEEDID (3.3V)** | **+3.3V EDID Power** |
| **CLK EEDID** | **EDID Clock Input** |
| **DATA EEDID** | **EDID Data Input** |
| ORXIN0-, ORXIN0+ | Odd LVDS differential data input(ORed0-ORed5, OGreen0) |
| ORXIN1-, ORXIN1+ | Odd LVDS differential data input(OGreen1-OGreen5, OBlue0-OBlue1) |
| ORXIN2-, ORXIN2+ | Odd LVDS differential data input(OBlue2-OBlue5, Hsync, Vsync, DE) |
| ORXCLKIN-, ORXCLKIN+ | Odd LVDS differential clock input |
| ERXIN0-, ERXIN0+ | Even LVDS differential data input(ERed0-ERed5, EGreen0) |
| ERXIN1-, ERXIN1+ | Even LVDS differential data input(EGreen1-EGreen5, EBlue0-EBlue1) |
| ERXIN2-, ERXIN2+ | Even LVDS differential data input(EBlue2-EBlue5) |
| ERXCLKIN-, ERXCLKIN+ | Even LVDS differential clock input |
| VDD | +3.3V Power Supply |
| **VSS** | **Ground** |

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

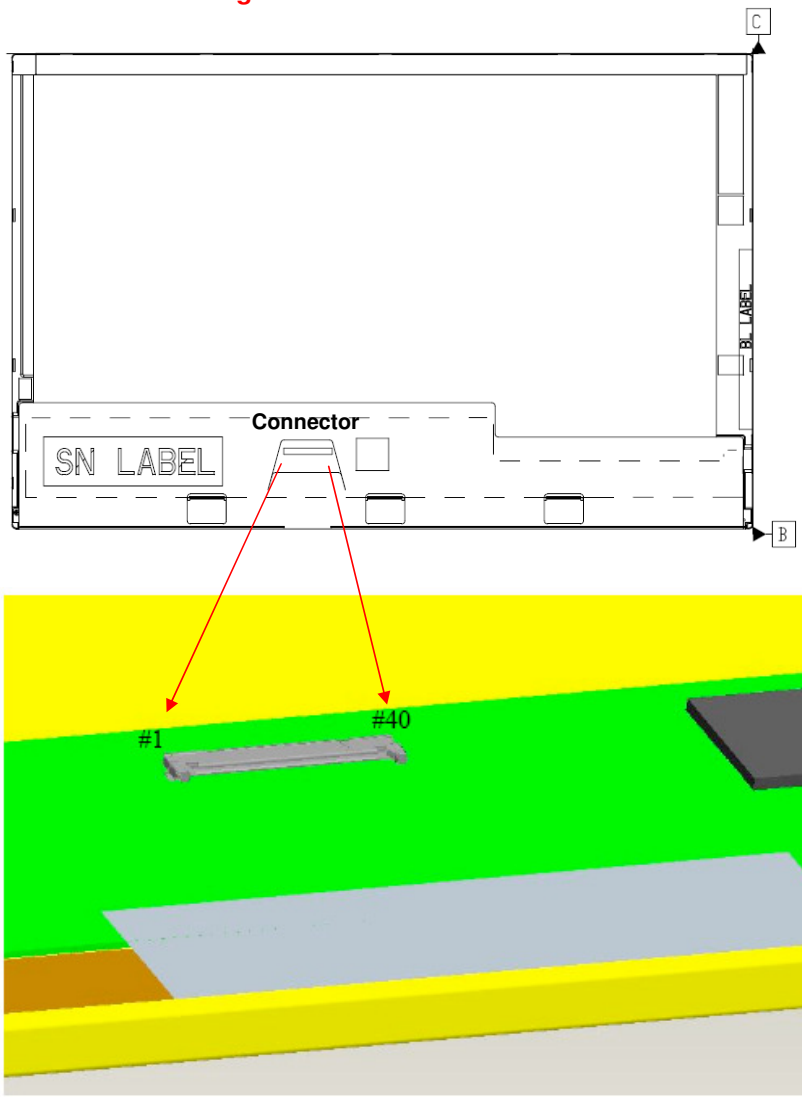
## 6.3 Signal Description/Pin Assignment

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

| Pin | Symbol | Description | Micro-coax cable gauge (AWG) |
|---|---|---|---|
| 1 | GND | Ground | 40 |
| 2 | Vcc | Power Supply (+3.3V) | **36** |
| 3 | Vcc | Power Supply (+3.3V) | **36** |
| 4 | VEDID | DDC 3.3V Power | 40 |
| 5 | Vcc | Power Supply (+3.3V) | 36 |
| 6 | ClkEDID | DDC Clock | 40 |
| 7 | DATAEDID | DDC Data | 40 |
| 8 | Odd_Rin0- | Odd Channel Differential Data Input | 40 |
| 9 | Odd_Rin0+ | Odd Channel Differential Data Input | 40 |
| 10 | GND | Ground | 40 |
| 11 | Odd_Rin1- | Odd Channel Differential Data Input | 40 |
| 12 | Odd_Rin1+ | Odd Channel Differential Data Input | 40 |
| 13 | GND | Ground | 40 |
| 14 | Odd_Rin2- | Odd Channel Differential Data Input | 40 |
| 15 | Odd_Rin2+ | Odd Channel Differential Data Input | 40 |
| 16 | GND | Ground | 40 |
| 17 | Odd_Clkin- | Odd Channel Differential Clock Input | 40 |
| 18 | Odd_Clkin+ | Odd Channel Differential Clock Input | 40 |
| 19 | GND | Ground | 40 |
| 20 | Even_Rin0- | Even Channel Differential Data Input | 40 |
| 21 | Even_Rin0+ | Even Channel Differential Data Input | 40 |
| 22 | GND | Ground | 40 |
| 23 | Even_Rin1- | Even Channel Differential Data Input | 40 |
| 24 | Even_Rin1+ | Even Channel Differential Data Input | 40 |
| 25 | GND | Ground | 40 |
| 26 | Even_Rin2- | Even Channel Differential Data Input | 40 |
| 27 | Even_Rin2+ | Even Channel Differential Data Input | 40 |
| 28 | GND | Ground | 40 |
| 29 | Even_Clkin- | Even Channel Differential Clock Input | 40 |
| 30 | Even_Clkin+ | Even Channel Differential Clock Input | 40 |
| 31 | Vdc1 | LED Cathode (Negative) | 40 |
| 32 | Vdc2 | LED Cathode (Negative) | 40 |
| 33 | Vdc3 | LED Cathode (Negative) | 40 |
| 34 | Vdc4 | LED Cathode (Negative) | 40 |
| 35 | Vdc5 | LED Cathode (Negative) | 40 |
| 36 | Vdc6 | LED Cathode (Negative) | 40 |

| | | | |
|---|---|---|---|
| 37 | AGINE | Panel self test | 40 |
| 38 | Vdc(1,2,3,4,5,6) | LED Annold (Positive) | 40 |
| 39 | Vdc(1,2,3,4,5,6) | LED Annold (Positive) | 40 |
| 40 | Vdc(1,2,3,4,5,6) | LED Annold (Positive) | 40 |

**Note1: Start from right side**



## 6.4 Interface Timing

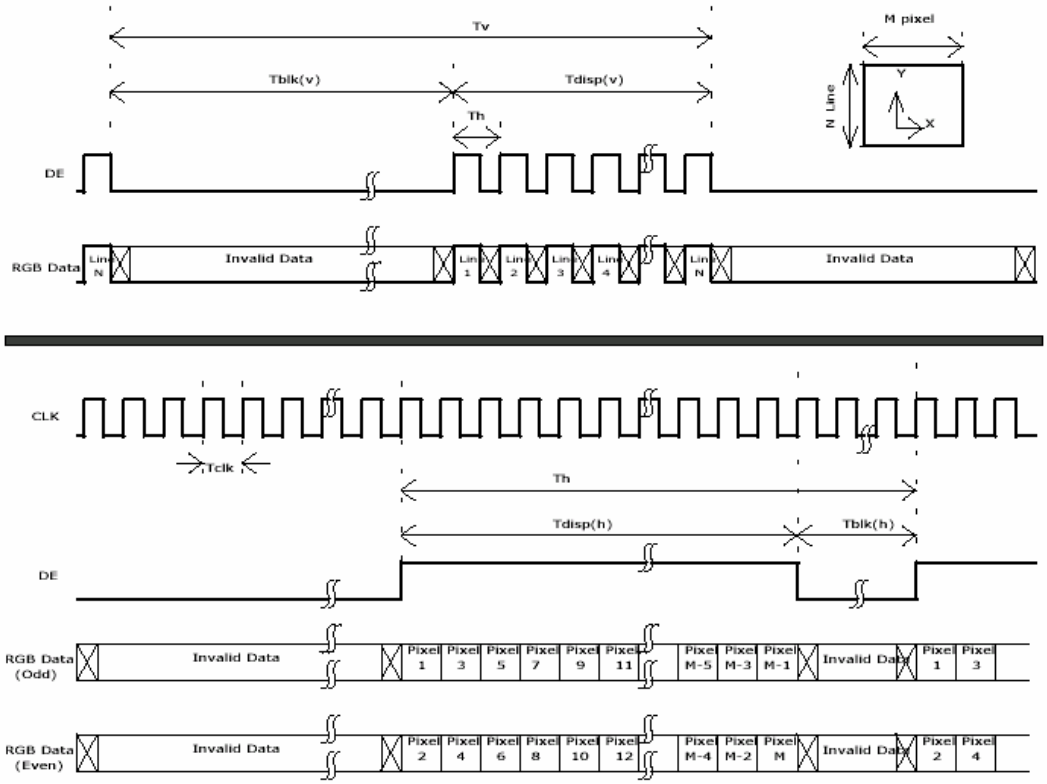
### 6.4.1 Timing Characteristics

Basically, interface timings should match the 1440x900 /60Hz manufacturing guide line timing.

| Parameter | | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Frame Rate | | - | 50 | 60 | - | Hz |
| Clock frequency | | $1/T_{Clock}$ | - | 48.2 | 60.2 | MHz |
| Vertical Section | Period | $T_V$ | 904 | 912 | 2048 | $T_{Line}$ |
| | Active | $T_{VD}$ | 900 | 900 | 900 | |
| | Blanking | $T_{VB}$ | 4 | 12 | - | |
| Horizontal Section | Period | $T_H$ | 760 | 880 | 1024 | $T_{Clock}$ |
| | Active | $T_{HD}$ | 720 | 720 | 720 | |
| | Blanking | $T_{HB}$ | 40 | 160 | - | |

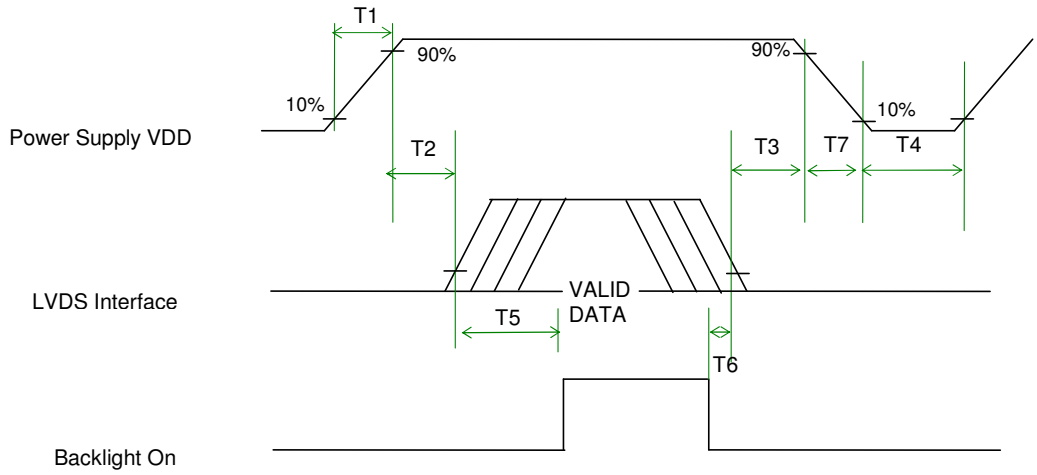
Note : DE mode only

### 6.4.2 Timing diagram



### 6.5 Power ON/OFF Sequence

VDD power and lamp on/off sequence is as follows. Interface signals 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**

| Parameter | Value | | | Units |
|---|---|---|---|---|
| | Min. | Typ. | Max. | |
| T1 | 0.5 | - | 10 | (ms) |
| T2 | 5 | - | 50 | (ms) |
| T3 | 0.5 | - | 50 | (ms) |
| T4 | 400 | - | - | (ms) |
| T5 | 200 | - | - | (ms) |
| T6 | 200 | - | - | (ms) |
| T7 | 0 | - | 10 | (ms) |

## 7. 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.

### 7.1 TFT LCD Module

| **Connector Name / Designation** | For Signal Connector |
|---|---|
| Manufacturer | JAE or compatible |
| Type / Part Number | JAE FI-JT40S-HF10-R3000 or compatible |
| Mating Housing/Part Number | JAE FI-JT40C-R3000 or compatible |

# 8. Dynamic Test

## 8.1 Vibration Test

**Test condition:**

- Acceleration: 3.0 G
- Frequency: 5–150 Hz, 0.37 Oct/min with sine wave
- Sweep: 30 Minutes each Axis (X, Y, Z)

## 8.2 Shock Test Spec:

**Test condition:**

- Acceleration: 220 G , Half sine wave
- Active time: 2 ms
- Pulse: +/-X,+/-Y,+/-Z , one time for each side

Remark:

1. Ambient condition is 25 ± 5℃, Relative humidity : 40% ~ 70%
2. Non-packaged and Non-operation

## 9. Reliability

| Items | Required Condition | Note |
|---|---|---|
| Temperature Humidity Bias | Ta= 50℃, 95%RH, 300h | |
| High Temperature Operation | Ta= 50℃, Dry, 300h | |
| Low Temperature Operation | Ta= 0℃, 300h | |
| High Temperature Storage | Ta= 65℃, 35%RH, 300h | |
| Low Temperature Storage | Ta= -25℃, 50%RH, 300h | |
| Thermal Shock Test | Ta=-25℃to 65℃, Duration at 30 min, 100 cycles | |
| ESD | Contact : ±8 KV<br>Air : ±15 KV | Note 1 |

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

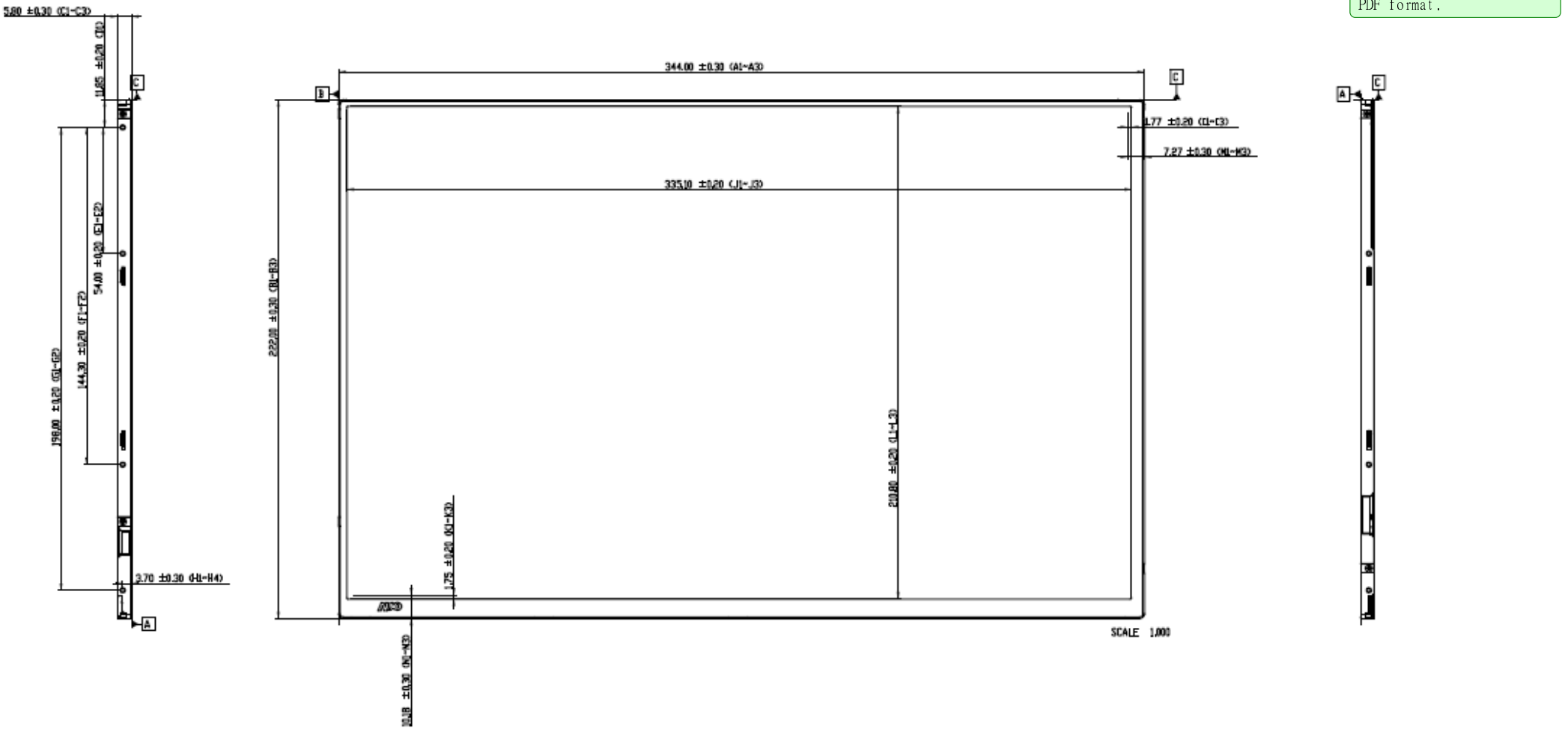
. Self-recoverable. No hardware failures.

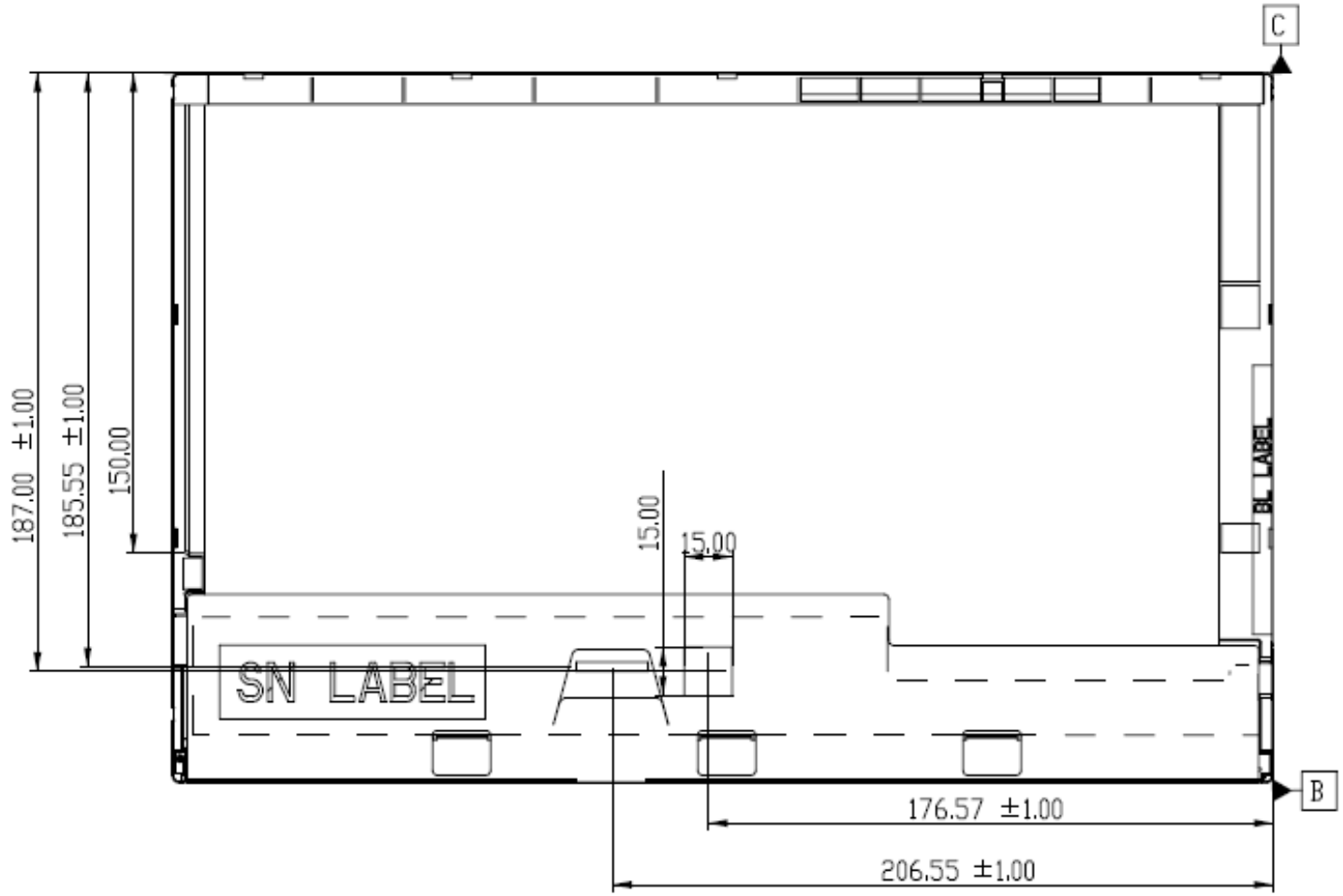
**Remark:** MTBF (Excluding the LED): 30,000 hours with a confidence level 90%

# 10. Mechanical Characteristics

## 10.1 LCM Outline Dimension

註解 [BY1]:
Get from RD-Must paste the PDF format.

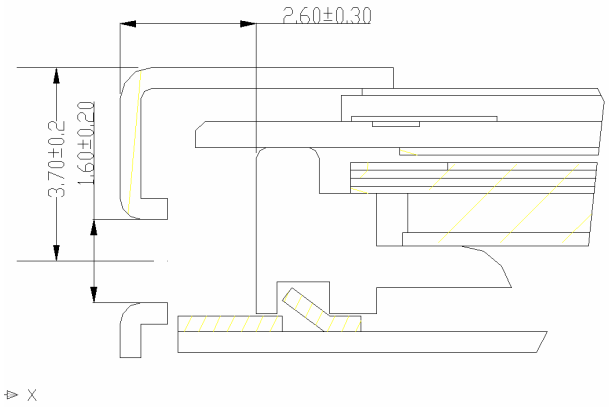



C
187.00 ±1.00
185.55 ±1.00
150.00
15.00
15.00
SN LABEL
BL LABEL
B
176.57 ±1.00
206.55 ±1.00

## 10.2 Screw Hole Depth and Center Position

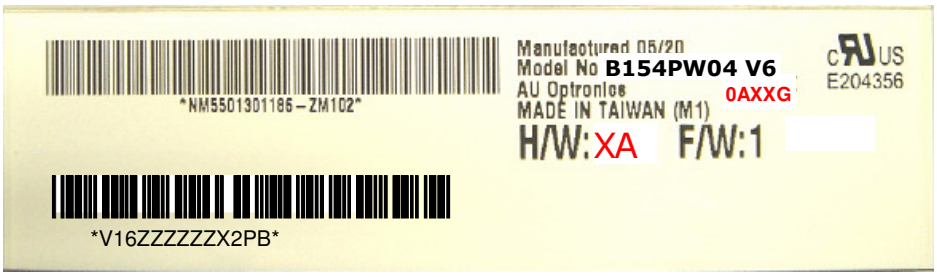
Screw hole minimum depth, from side surface = 2.3 mm (Ref. drawing)

Screw hole center location, from front surface = 3.7 ± 0.2mm (Ref. drawing)
Screw Torque: Maximum 2.5 kgf-cm



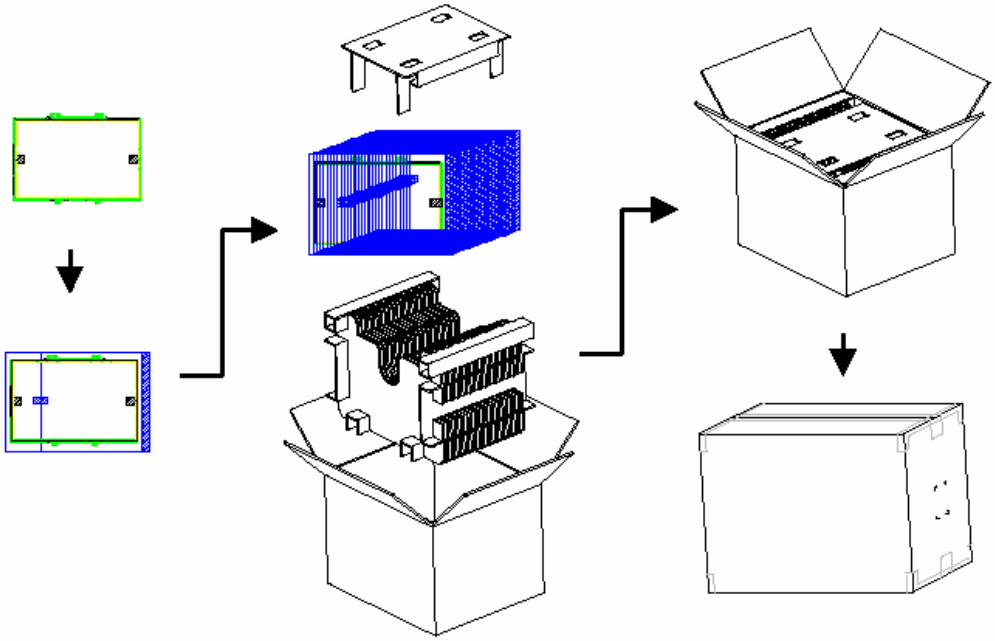
# 11. Shipping and Package

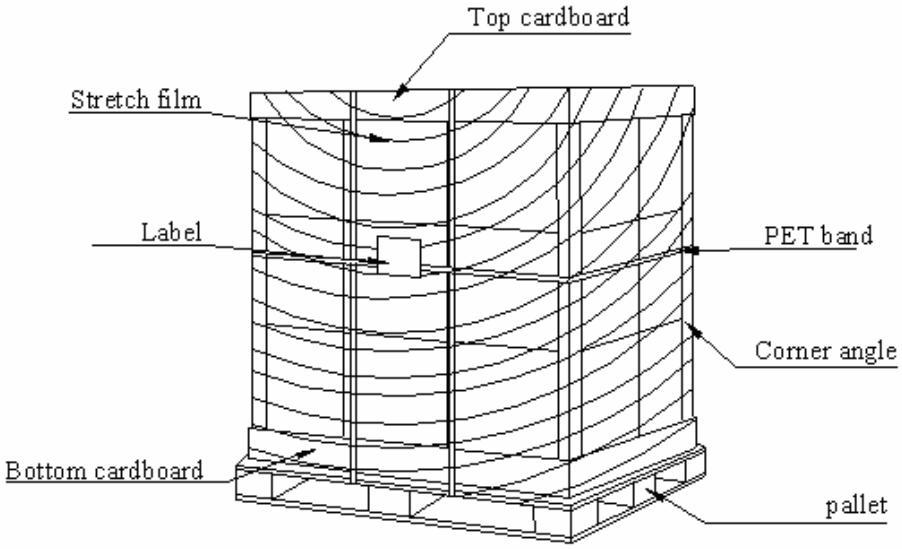
## 11.1 Shipping Label Format



## 11.2 Carton package

The outside dimension of carton is 455 (L)mm x 380 (W)mm x 355 (H)mm





## 12. Appendix: EDID description

| Address | FUNCTION | B154PW04 | Value | Value | Note |
|---|---|---|---|---|---|
| HEX | Header | HEX | BIN | DEC | |
| 00 | | 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 | APP |
| 09 | Compressed ASCII | 10 | 00010000 | 16 | 0 00001(A) 10000(P) 10000(P) |
| 0A | Product code | 66 | 01100110 | 102 | 9C66 |
| 0B | Product code | 9C | 10011100 | 156 | assign product code |
| 0C | 32-bit ser # | 01 | 00000001 | 1 | unused |
| 0D | | 01 | 00000001 | 1 | |
| 0E | | 01 | 00000001 | 1 | |
| 0F | | 01 | 00000001 | 1 | |
| 10 | Week of manufacture | 28 | 00101000 | 40 | Week=40 |
| 11 | Year of manufacture | 10 | 00010000 | 16 | Year=2006 |
| 12 | EDID Structure Ver. | 01 | 00000001 | 1 | |
| 13 | EDID revision # | 03 | 00000011 | 3 | |
| 14 | Video input definition | 80 | 10000000 | 128 | Digital Input |
| 15 | Max H image size | 21 | 00100001 | 33 | 33cm |
| 16 | Max V image size | 15 | 00010101 | 21 | 21cm |
| 17 | Display Gamma | 78 | 01111000 | 120 | Gamma=2.2 |
| 18 | Feature support | 0A | 00001010 | 10 | no DPMS,Active off,RGB color |
| 19 | Red/green low bits | 50 | 01010000 | 80 | |

| | | | | | |
|---|---|---|---|---|---|
| 1A | Blue/white low bits | C5 | 11000101 | 197 | |
| 1B | Red x/ high bits | 98 | 10011000 | 152 | Rx=0.595 |
| 1C | Red y | 58 | 01011000 | 88 | Ry=0.345 |
| 1D | Green x | 52 | 01010010 | 82 | Gx=0.32 |
| 1E | Green y | 8E | 10001110 | 142 | Gy=0.555 |
| 1F | Blue x | 27 | 00100111 | 39 | Bx=0.155 |
| 20 | Blue y | 25 | 00100101 | 37 | By=0.145 |
| 21 | White x | 50 | 01010000 | 80 | Wx=0.313 |
| 22 | White y | 54 | 01010100 | 84 | Wy=0.329 |
| 23 | Established timing 1 | 00 | 00000000 | 0 | unused |
| 24 | Established timing 2 | 00 | 00000000 | 0 | |
| 25 | Manufacturer's Timing | 00 | 00000000 | 0 | |
| 26 | Standard timing #1 | 01 | 00000001 | 1 | unused |
| 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 | 00000001 | 1 | |
| 2E | Standard timing #5 | 01 | 00000001 | 1 | |
| 2F | | 01 | 00000001 | 1 | |
| 30 | Standard timing #6 | 01 | 00000001 | 1 | |
| 31 | | 01 | 00000001 | 1 | |
| 32 | Standard timing #7 | 01 | 00000001 | 1 | |
| 33 | | 01 | 00000001 | 1 | |
| 34 | Standard timing #8 | 01 | 00000001 | 1 | |
| 35 | | 01 | 00000001 | 1 | |

| | | | | | |
|---|---|---|---|---|---|
| 36 | Pixel Clock/10,000 (LSB) | 9E | 10011110 | 158 | Timing Descriptor #1 |
| 37 | Pixel Clock/10,000 (MSB) | 25 | 00100101 | 37 | Pixel clock=96.3Mhz |
| 38 | Horiz. Active pixels(Lower 8 bits) | A0 | 10100000 | 160 | Horiz active=1440 pixels |
| 39 | Horiz.Blanking (Lower 8 bits) | 40 | 01000000 | 64 | Horiz blanking=320 pixels |
| 3A | Horiz. Active pixels:Horiz. Blanking (Upper4:4 bits) | 51 | 01010001 | 81 | |
| 3B | | 84 | 10000100 | 132 | Vertcal active=900 lines |
| 3C | | 0C | 00001100 | 12 | Vertical blanking=12 lines |
| 3D | Vert. Active pixels:Vert. Blanking (Upper4:4 bits) | 30 | 00110000 | 48 | |
| 3E | | 40 | 01000000 | 64 | Horiz sync. Offset= 64 pixels |
| 3F | | 20 | 00100000 | 32 | Horiz sync. Pulse Width= 32 pixels |
| 40 | Vert. Sync. Offset=xx lines, Sync Width=xx lines | 33 | 00110011 | 51 | Verti sync. Offset= 3 lines, Sync Width=3 lines |
| 41 | Horz. Ver. Sync/Width (upper 2 bits) | 00 | 00000000 | 0 | |
| 42 | Hori. Image size (Lower 8 bits) | 4C | 01001100 | 76 | Hori image size= 332 mm |
| 43 | Vert. Image size (Lower 8 bits) | CF | 11001111 | 207 | Verti image size= 207 mm |
| 44 | Hori. Image size : Vert. Image size (Upper 4 bits) | 10 | 00010000 | 16 | |

| | | | | | |
|---|---|---|---|---|---|
| 45 | | 00 | 00000000 | 0 | Horizontal Border = 0 |
| 46 | | 00 | 00000000 | 0 | Vertical Border = 0 |
| 47 | | 18 | 00011000 | 24 | |
| 48 | Detailed timing/monitor | 00 | 00000000 | 0 | |
| 49 | descriptor #2 | 00 | 00000000 | 0 | |
| 4A | | 00 | 00000000 | 0 | |
| 4B | | 01 | 00000001 | 1 | For |
| 4C | Version | 00 | 00000000 | 0 | For |
| 4D | edid signature | 06 | 00000110 | 6 | For |
| 4E | edid signature | 10 | 00010000 | 16 | For |
| 4F | Link Type (LVDS Link,MSB justified) | 30 | 00110000 | 48 | For |
| 50 | Pixel and link component format (6-bit panel interface) | 00 | 00000000 | 0 | For |
| 51 | Panel features (No inverter) | 00 | 00000000 | 0 | For |
| 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 | | 0A | 00001010 | 10 | |
| 59 | | 20 | 00100000 | 32 | |
| 5A | Detailed timing/monitor | 00 | 00000000 | 0 | ASCII Data String: B154PW04 V0 |
| 5B | descriptor #3 | 00 | 00000000 | 0 | |
| 5C | | 00 | 00000000 | 0 | |
| 5D | | FE | 11111110 | 254 | |
| 5E | | 00 | 00000000 | 0 | |
| 5F | | 42 | 01000010 | 66 | B |
| 60 | | 31 | 00110001 | 49 | 1 |
| 61 | | 35 | 00110101 | 53 | 5 |
| 62 | | 34 | 00110100 | 52 | 4 |
| 63 | | 50 | 01010000 | 80 | P |

| | | | | | |
|---|---|---|---|---|---|
| **64** | | 57 | 01010111 | 87 | **W** |
| **65** | | 30 | 00110000 | 48 | **0** |
| **66** | | 34 | 00110100 | 52 | **4** |
| **67** | | 20 | 00100000 | 32 | |
| **68** | | 56 | 01010110 | 86 | **V** |
| **69** | | 30 | 00110000 | 48 | **0** |
| **6A** | | 0A | 00001010 | 10 | |
| **6B** | | 20 | 00100000 | 32 | |
| **6C** | **Detailed timing/monitor descriptor #4** | 00 | 00000000 | 0 | **Monitor Name: Color LCD** |
| **6D** | | 00 | 00000000 | 0 | |
| **6E** | | 00 | 00000000 | 0 | |
| **6F** | | FE | 11111110 | 254 | |
| **70** | | 00 | 00000000 | 0 | |
| **71** | | 43 | 01000011 | 67 | **C** |
| **72** | | 6F | 01101111 | 111 | **o** |
| **73** | | 6C | 01101100 | 108 | **l** |
| **74** | | 6F | 01101111 | 111 | **o** |
| **75** | | 72 | 01110010 | 114 | **r** |
| **76** | | 20 | 00100000 | 32 | |
| **77** | | 4C | 01001100 | 76 | **L** |
| **78** | | 43 | 01000011 | 67 | **C** |
| **79** | | 44 | 01000100 | 68 | **D** |
| **7A** | | 0A | 00001010 | 10 | |
| **7B** | | 20 | 00100000 | 32 | |
| **7C** | | 20 | 00100000 | 32 | |
| **7D** | | 20 | 00100000 | 32 | |
| **7E** | **Extension Flag** | 00 | 00000000 | 0 | |
| **7F** | **Checksum** | 87 | 10000111 | 135 | |