MULTI-INNO TECHNOLOGY CO., LTD.

# LCD MODULE SPECIFICATION

## Model : MI1040GTD

| | |
|---|---|
| Revision | V.3 |
| Engineering | |
| Date | |
| Our Reference | |

# Catalogue

# Version

| Date | Version | Content |
|---|---|---|
| 2009-6-18 | VER: 1.00 | The First Version |
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## 1. Profile：

MI1040GTD VER:1.00_MI1040GT-1 TFT LCD Module, it is make of MI1040GTD VER:1.00 Driver board and high voltage board(SFL3),and 10.4”AUO tft lcd panel(MI1040GT-1),this driver board can with VGA;CVBS;SVIDEO and AUDIO signal input, with PAL and NTSC system format(auto switch). It adopt IC to control power supply and backlight (LED backlight).

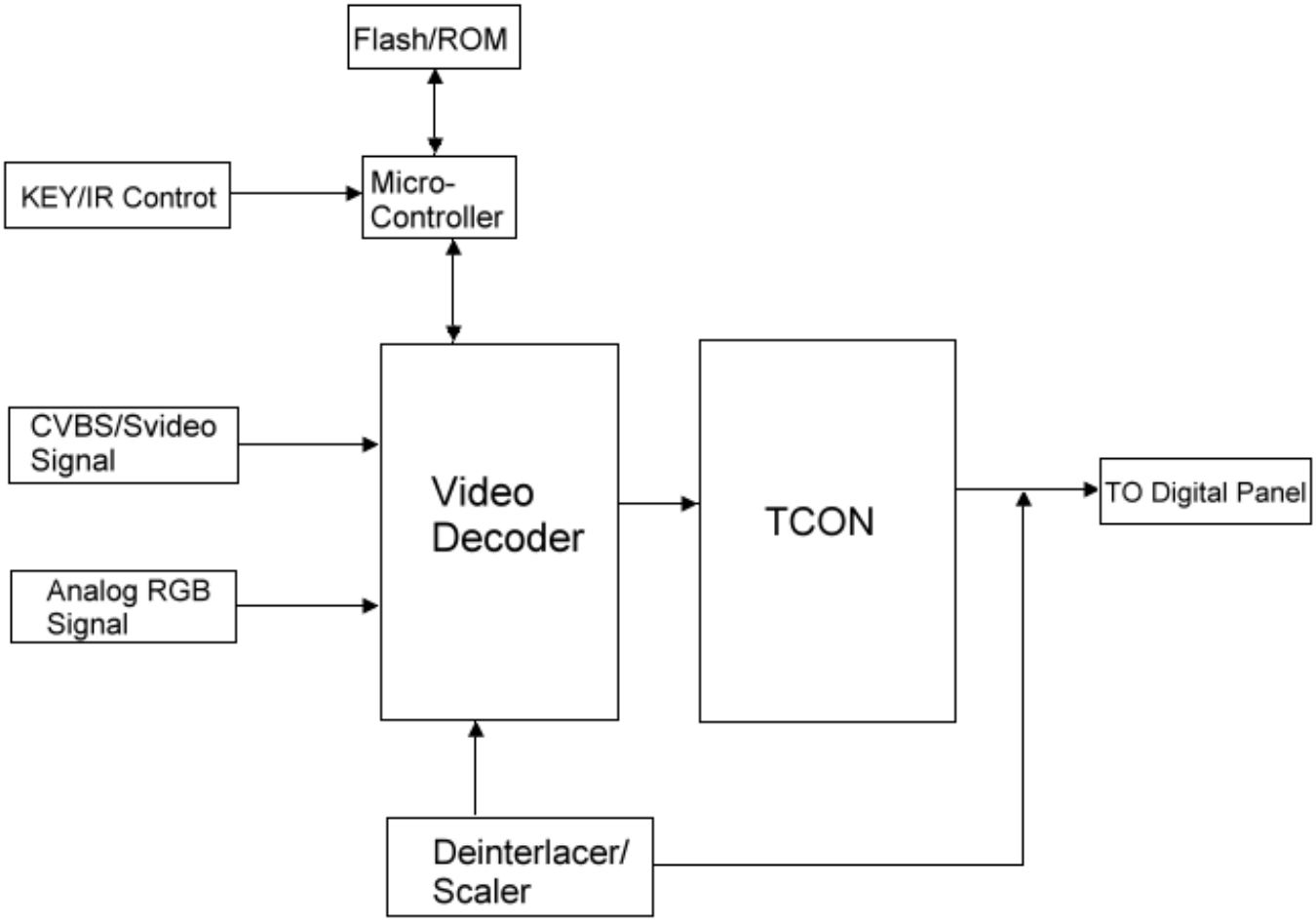
## 2. Application：

- Office electronic equipment
- Apparatus & measurement appliance
- Machinery
- Audiovisual （Display for car、Portable DVD、Long-distance terminal）
- Home appliance （Video door phone、Video telephone）

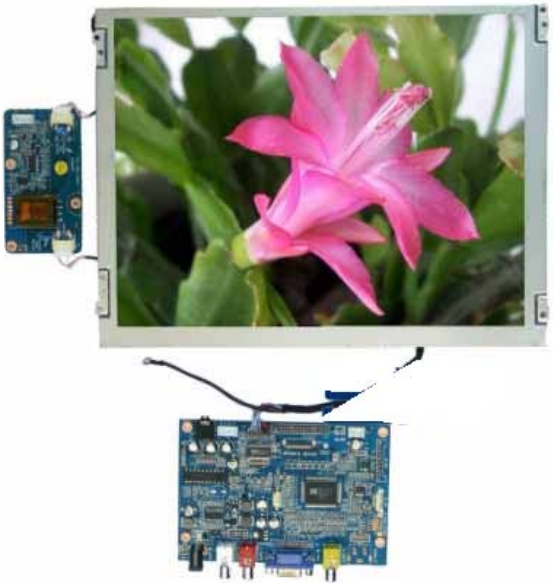
## 3.Main Parameter：

- Product Name：10.4”TFT LCD Module
- Model：MI1040GTD
- Display Panel：10.4” TFT-LCD ( Digital Panel;4:3)
- Backlight：LED
- Pixel resolution：800(H) x 3RGBx 600（V）
- View angle Ø（U/D/L/R）：（50/60/70/70）
- Brightness：400 cd/m2
- System format：PAL/NTSC automatically switch
- Video input：1.0Vp-p 75 ohm
- Power Supply Input：DC 12V ±25% (1000mA)
- Audio Power: 1.5Wx2 8ohm/1KHZ
- Panel display dimension(mm)：246.0（H）× 184.5（V）
- Panel Overall dimension(mm)：279.0（W）× 209.0（H）× 11.0（D）
- Structural dimension of PCB (mm)：132.2(W)× 89.9（H）× 15.40（D）
- Working temperature：-10~+60℃
- Environmental relative humidity：5~95% RH
- Storage temperature：-20℃~+70℃

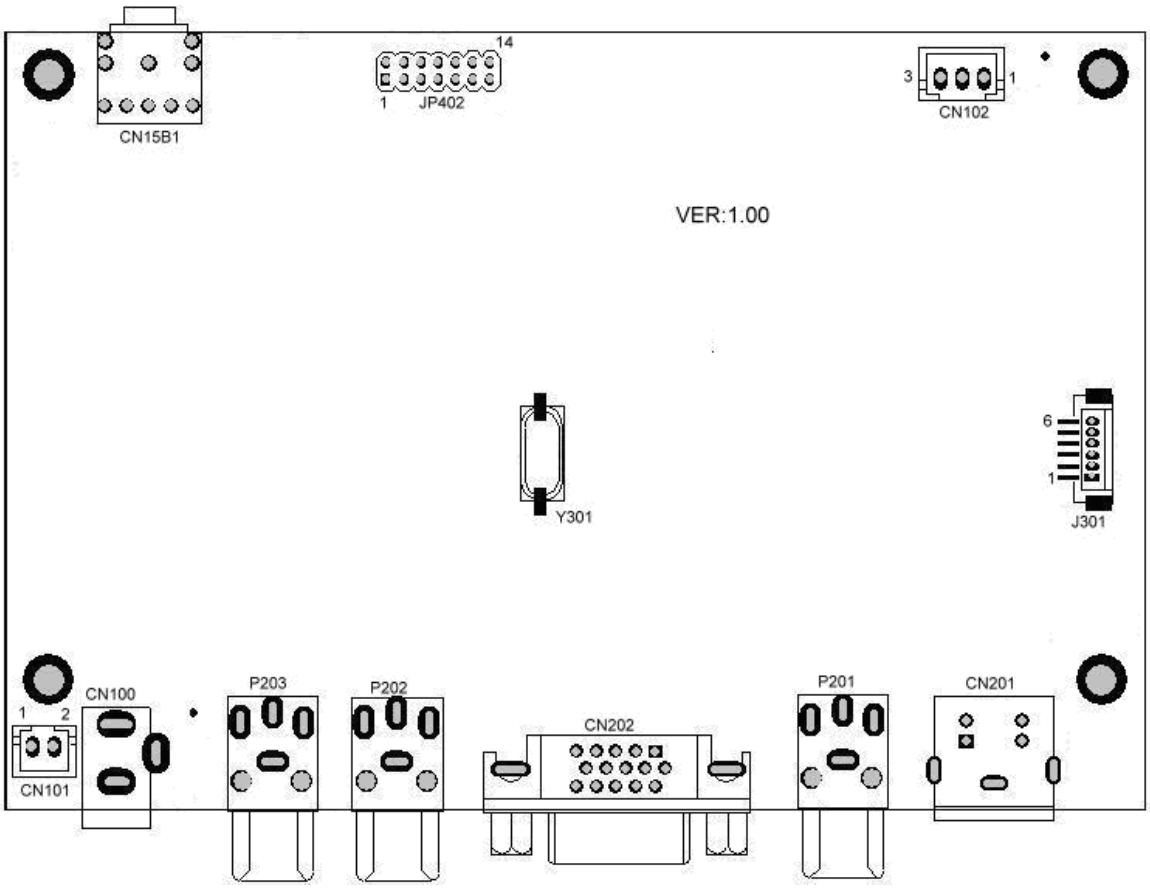
**4.** Block diagram:



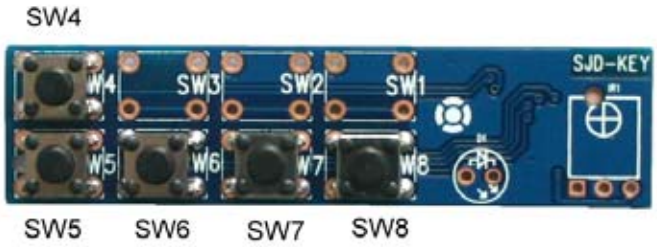

Product Picture：



## 5. Wiring Diagram：




Key-board:




Connector Definition of Key-board:

| Pin No. | Symbol | Description | Remark |
|---|---|---|---|
| 1 | SW4 | AV switch | |
| 2 | SW5 | POWER | |
| 3 | SW6 | Menu | |
| 4 | SW7 | + | |

| | | | |
|---|---|---|---|
| 5 | SW8 | - | |

## 6. Connector definition for driver board:

**P203 audio input/right track**

**P202 audio input/left track**

**CN15B1 audio output**

**CN202 VGA signal input**

**P201 video input**

**CN201 Y/C input.**

### 6.1 J301 Connector Definition:

| Pin No. | Symbol | I/O | Description | Remark |
|---|---|---|---|---|
| 1 | +5V | I | +5V input | |
| 2 | GND | - | Ground | |
| 3 | IR | I | Remote control input | |
| 4 | KEY1 | I | Key-press input | |
| 5 | KEY2 | I | Key-press input | |
| 6 | LED | O | LED output | |

### 6.2 CN102 Connector Definition:

| Pin No. | Symbol | I/O | Description | Remark |
|---|---|---|---|---|
| 1 | +12V | O | +12V output | |
| 2 | GND | - | Ground | |
| 2 | ON/OFF | O | Backlight on/off control | |

### 6.3 CN101 Connector Definition:

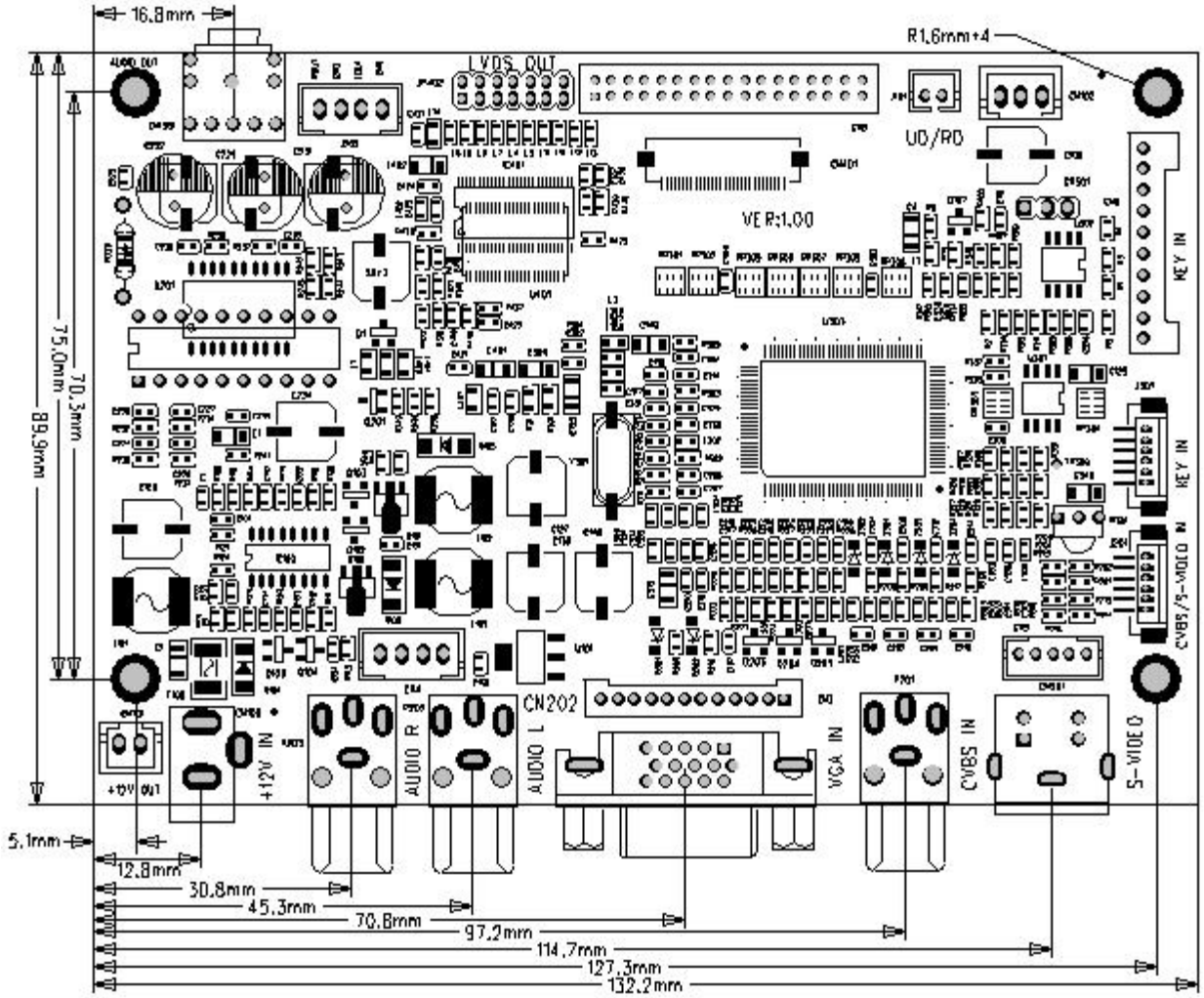
| Pin No. | Symbol | I/O | Description | Remark |
|---|---|---|---|---|
| 1 | GND | - | Ground | |
| 2 | +12V | I | +12V power supply input | |

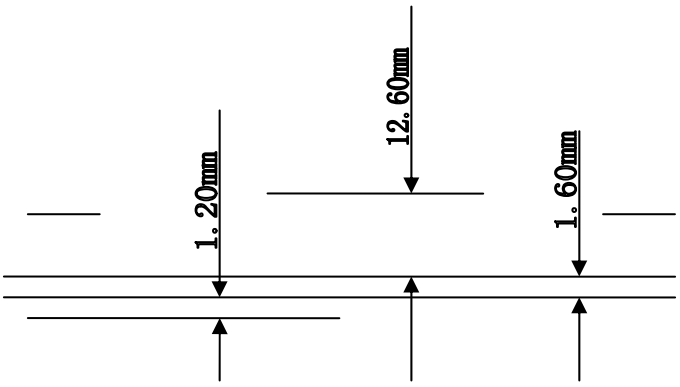
### 6.4 JP402 Connector Definition:

| Pin No. | Symbol | I/O | Description | Remark |
|---|---|---|---|---|
| 1 | LCD VDD | O | LCD power supply output +3.3V | |
| 2 | LCD VDD | O | LCD power supply output +3.3V | |
| 3 | GND | - | Ground | |
| 4 | GND | - | - | |
| 5 | DA0- | O | pixel data | |
| 6 | DA+ | O | pixel data | |
| 7 | DA1- | O | pixel data | |
| 8 | DA1+ | O | pixel data | |
| 9 | DA2- | O | pixel data | |
| 10 | DA2+ | O | pixel data | |
| 11 | CKA- | O | sampling clock | |
| 12 | CKA+ | O | sampling clock | |
| 13 | DA3- | O | pixel data | |
| 14 | DA3+ | O | pixel data | |

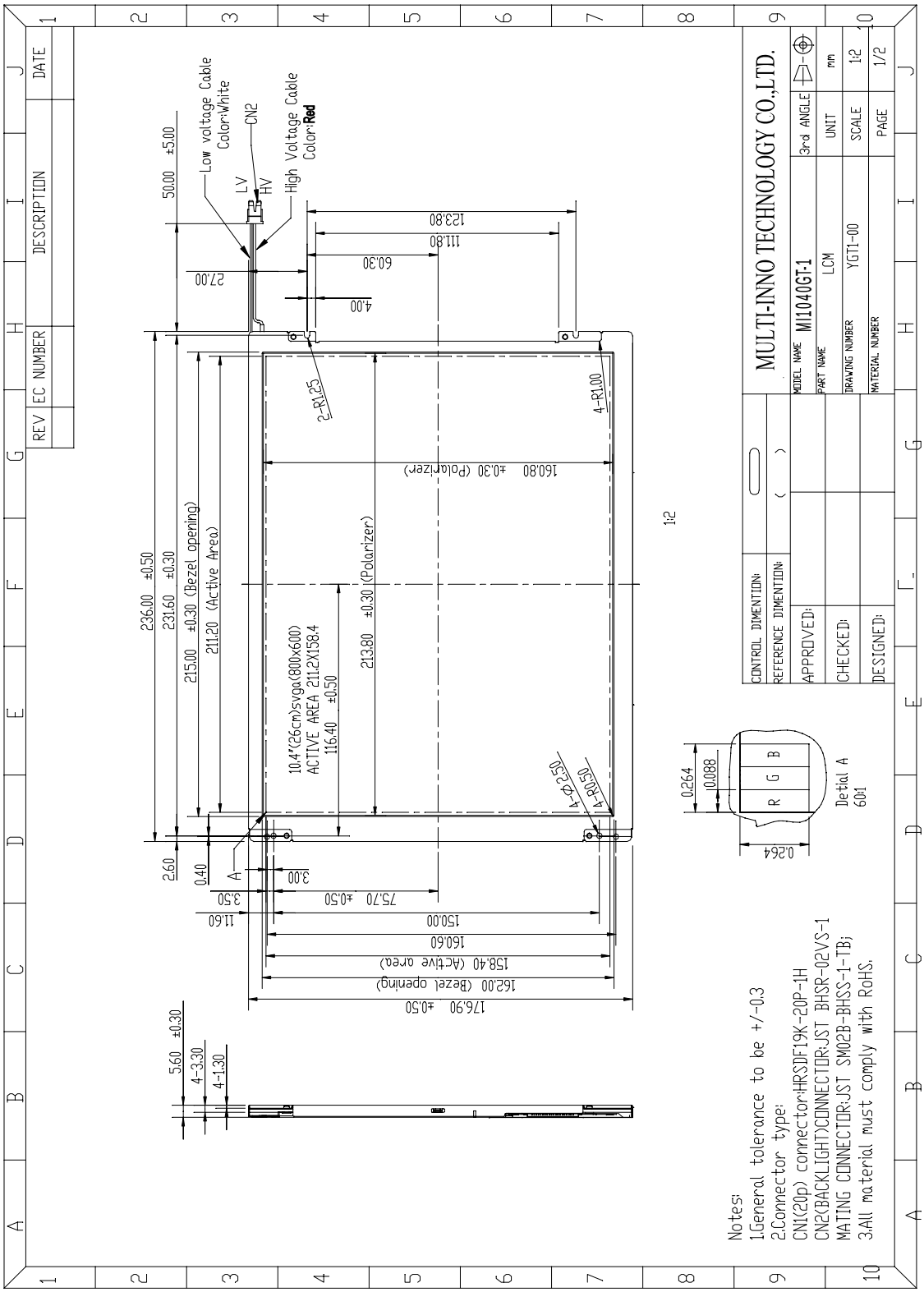
## 7. Structural Diagram:

7.1 PCB:


16.8mm
R1.6mm*4
LVDS OUT
UD/RD
VER:1.00
KEY IN
89.9mm
75.0mm
70.3mm
CN202
AUDIO R
AUDIO L
VGA IN
CVBS IN
S-VIDEO
+12V IN
+12V OUT
5.1mm
12.8mm
30.8mm
45.3mm
70.8mm
97.2mm
114.7mm
127.3mm
132.2mm


12.60mm
1.20mm
1.60mm

## 7.2TFT LCD Panel:



## 8. 12.1" TFT- LCD PANEL determinant standard:

Aim：Establishing the standard of PANLE for inspecting material & progress and for clients' inspection.

Scope：Apply to 10.4′TFT LCD

Content：

8.1. Inspection standard and method：

8.1.1. The method and determinant of inspecting the nick of panel of LCD：

8.1.1.1. Inspect vertically (or at 45° angle from left/right)under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick , it is "OK". Otherwise "NG".

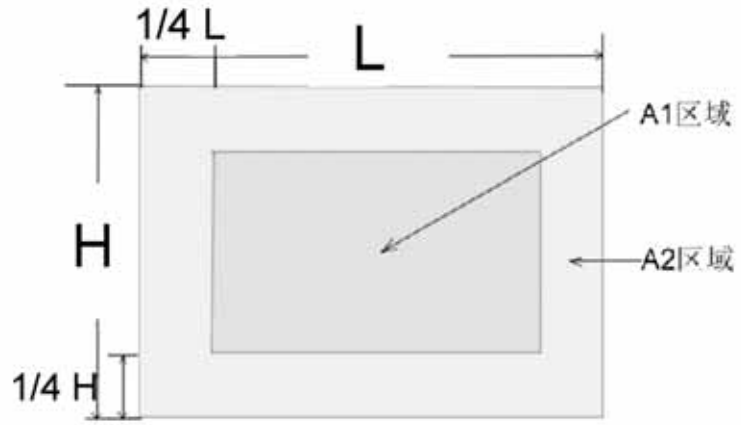
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD：

8.1.2.1. Inspection methods

8.1.2.1.1. Black spots：under status of denote light，set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

8.1.2.1.2. White & Color spots: under status of denote light, set the Mask of black spot inspection on the white spot(or color spot) then inspect them by eyes if it can hide.

8. 1. 2. 2. Division of LCD Panel




Remark：A1：The center of the available area for the picture

A2：The edge of the available area for the picture（around the central area）

8.1.3. Determinant Choice

| Spot Diameter（mm） | | Allowed Area | |
|---|---|---|---|
| | | A1 | A2 |
| Black Spot | d≤0.15 | Irrespective | Irrespective |
| | 0.15<d≤0.3 | 4 | 4 |
| | 0.3<d≤0.5 | 2 | 3 |
| | 0.5<d≤0.8 | 0 | 2 |

| | | | |
|---|---|---|---|
| White or color spot | d≤0.15 | Irrespective | Irrespective |
| | 0.15<d≤0.3 | 3 | 3 |
| | 0.3<d≤0.5 | 1 | 2 |
| | 0.5<d≤0.8 | 0 | 1 |

Remark: 1. Size: Average Diameter=（Max. Diameter + Min. Diameter）/2

2. Using information above as a standard in order to judge while the spot is are dense.

3. Black & White spot： To judge the obvious spots through the change of voltage by comparison。

4. Total quantity of Black & white & color spot: A1+A2 ≤ 4。

## 9. Packing

TBD

## 10. Attention:

1. Voltage don't exceed upper limit.
2. The connector can't connect board in reverse, or will burn the board and influence the product.
3. Please don't touch it in order to keep your skin non-burn when you electrify the board(high voltage on the board).
4. It is a electronic product, so you need to take anti-static measure when you operate it.
5. 10.4" TFT-LCD panel is a glasswork, place carefully ,broken for fear.
6. The connection is "FPC", which connect 10.4"TFT-LCD panel with PCB, Please operate it carefully, in order to keep it well.
7. Don't touch key-press's pin when you adjust brightness, color through soft key-press, due to Person have resistance, you will effect image's impact when touch it.