| Good Display | LCD MODULE SPECIFICATIONS | SPEC NO | |
|---|---|---|---|
| | GD25TTD | REV NO | RD001 |

# Good Display Specifications

| | |
|---|---|
| Type: | Standard |
| Model No. | GD25TTD |
| Description: | ● 2.5”, 240 x RGB x 320 dots, , TFT LCD module.<br>● With white LED backlight<br>● VIDEO/CVBS input. |

| | |
|---|---|
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| Issue Date: | 2009.02.19 |

Good Display

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# Catalogue

# Version

| Date | version | content |
|---|---|---|
| 2009-2-19 | RD001 | The First Version |
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## 1. Profile:

GD25TTD RD001 2.5" color TFT LCD Module is composed of JD25TTD RD001 driver board and 2.5" TFT display: GTO025THEG1. This module provides users with CVBS/VIDEO signal input and automatic identifying and converting of NTSC/PAL systems, built-in OSD (on-screen display) function, and the OSD menu offers adjustment of brightness, contrast and color. The power control IC is designed for better reliability.

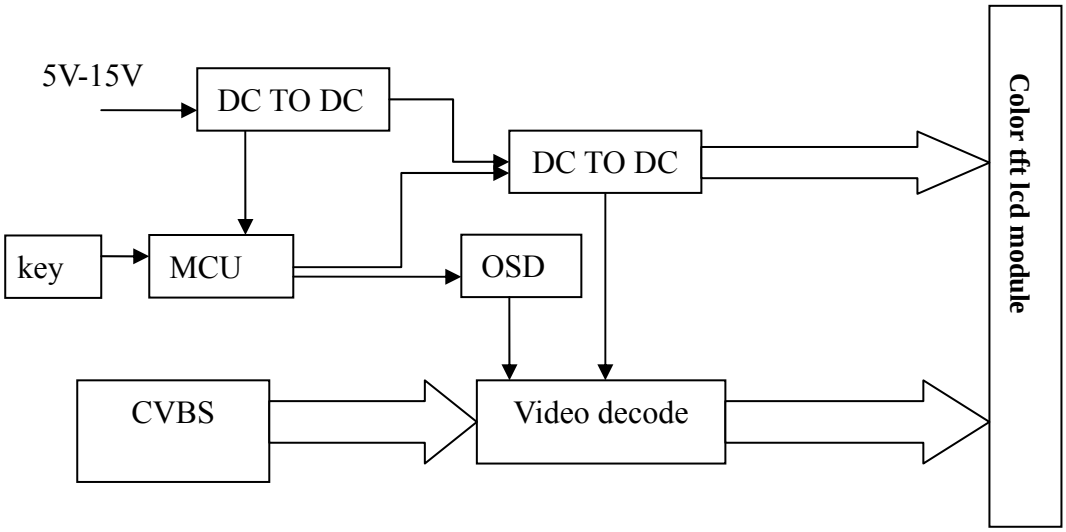
## Application:

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

## 3. Main Parameter:

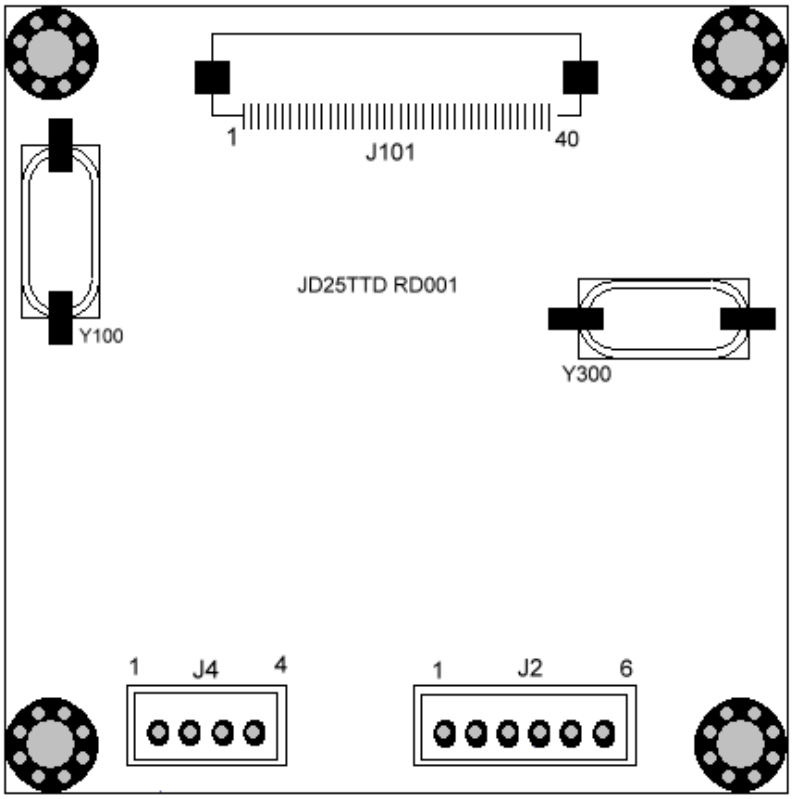
- Product name：2.5" TFT-LCD module
- Module Model ：GD25TTD RD001
- TFT display：2.5" TFT LCD display: GTO025THEG1
- Backlight：LED
- Resolution：320（H）X 3(RGB) X240（V）
- View angle（U/D/L/R）：(20/50/40/40)
- Luminance： 250 cd/$m^2$
- System：PAL/NTSC (automatic identifying and converting)
- Signal input: CVBS/VIDEO
- Power input voltage：DC 5V-15V
- Active Area(mm)：49.946（H）×37.56（V）
- Outside dimension of display(mm)：56.2(W)×47.8（H）×2.53（D）
- Structural dimension of PCBA(mm)：50.0(W)×50.0（H）×7.9（D）
- Operation temperature：-10℃~+60℃
- Relative humidity：5~95% RH
- Storage temperature：-20℃~+70℃

## 4. Block diagram:




## Module Picture:

## 5. Wiring diagram:




## 6. Connector definition of driver board:

### 6.1 J4

| Pin No. | Symbol | In/Out | Discription | Remark |
|---|---|---|---|---|
| 1 | 5V-15V | I | Power input | |
| 2 | GND | - | Ground | |
| 3 | GND | - | Ground | |
| 4 | CVBS | I | Video signal input | |

### 6.1 J2

| Pin No. | Symbol | In/Out | Description | Remark |
|---|---|---|---|---|
| 1 | GND | - | Ground | |
| 2 | DOWN | I | Key - | |
| 3 | UP | I | Key + | |
| 4 | MENU | I | menu | |
| 5 | ON/OFF | I | Power switch | |
| 6 | +5V | O | +5V output | |

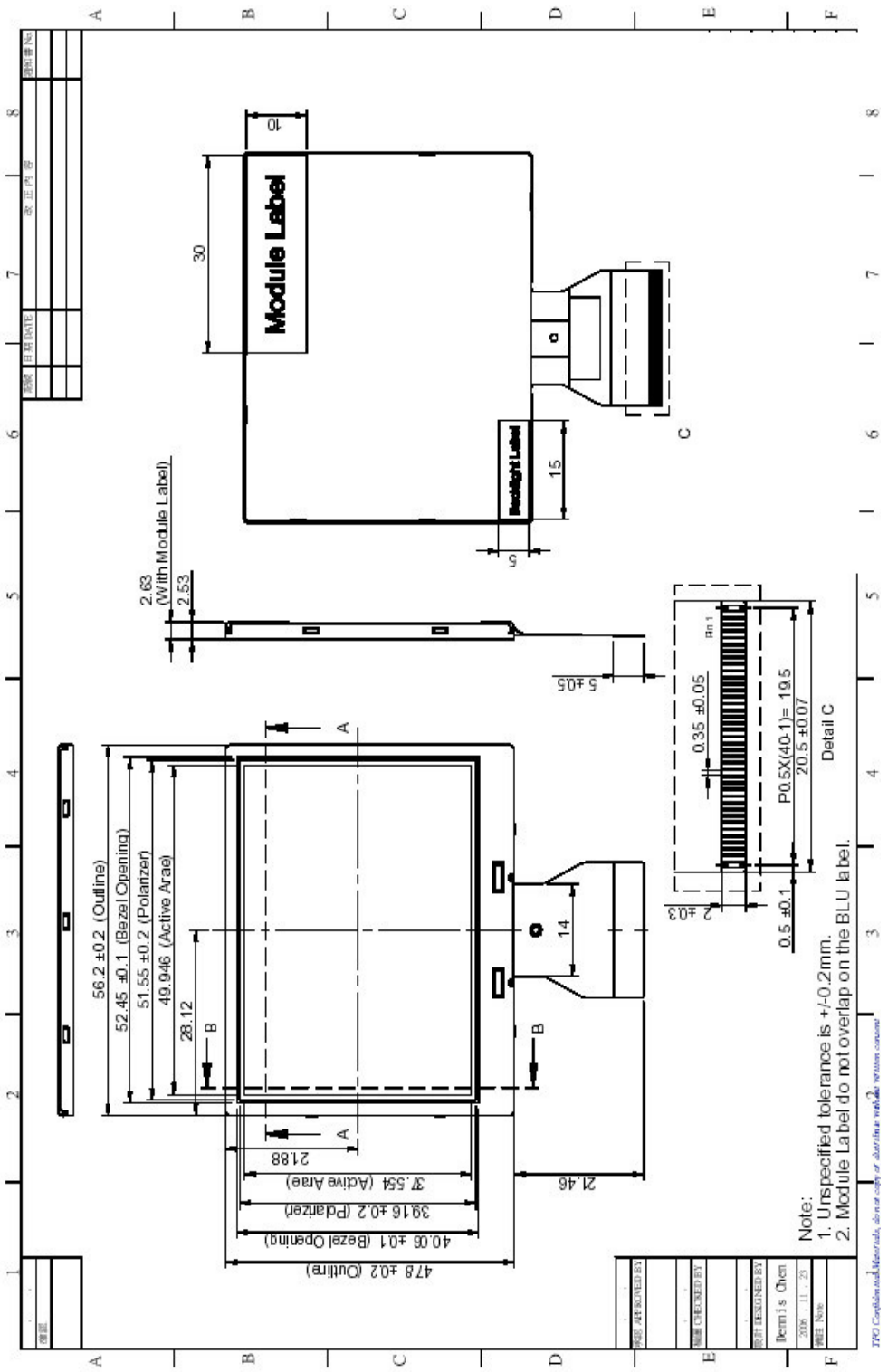
### 6.3 J101

| Pin | Symbol | I/O | Description | Remark |
|---|---|---|---|---|
| 1 | CP3 | C | Capacitor for power setting | |
| 2 | CP4 | C | Capacitor for power setting | |
| 3 | CP5 | C | Capacitor for charge pump | |
| 4 | CP6 | C | Capacitor for charge pump | |
| 5 | CP7 | C | Capacitor for charge pump | |
| 6 | CP8 | C | Capacitor for charge pump | |
| 7 | DUMMY | -- | Dummy | |
| 8 | DUMMY | -- | Dummy | |
| 9 | PCD | C | Capacitor for pre-charge data signal high | |
| 10 | VCOML | C | Capacitor for VCOM low | |
| 11 | VCOMH | C | Capacitor for VCOM high | |
| 12 | AGND | -- | Analog ground | |
| 13 | DUMMY | -- | Dummy | |
| 14 | AVDD | C | Regulation capacitor for analog voltage | |
| 15 | CP1 | C | Capacitor for charge pump | |
| 16 | CP2 | C | Capacitor for charge pump | |
| 17 | PWM | O | Power transistor gate signal for the boost converter | |
| 18 | FB | I | Main boost regulator feedback input. | |
| 19 | LED- | -- | LED power: cathode | **Note 1** |
| 20 | DUMMY | -- | Dummy | |
| 21 | DUMMY | -- | Dummy | |

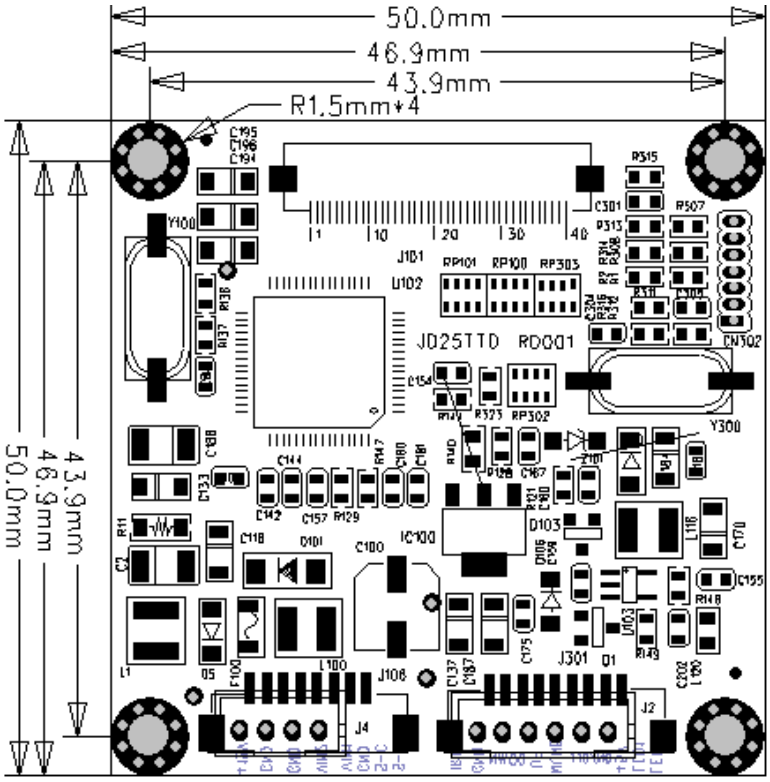
| | | | | |
|---|---|---|---|---|
| 22 | LED+ | -- | LED power: anode | **Note 1** |
| 23 | GND | -- | Ground | |
| 24 | VCC | -- | Power supply for digital circuit and charge pump circuit | |
| 25 | VSYNC | I | Vertical sync input. Negative polarity | |
| 26 | HSYNC | I | Horizontal sync input. Negative polarity | |
| 27 | DCLK | I | Clock signal, latch data onto line latches at the rising edge | |
| 28 | DIN0 | I | Data input | |
| 29 | DIN1 | I | Data input | |
| 30 | DIN2 | I | Data input | |
| 31 | DIN3 | I | Data input | |
| 32 | DIN4 | I | Data input | |
| 33 | DIN5 | I | Data input | |
| 34 | DIN6 | I | Data input | |
| 35 | DIN7 | I | Data input | |
| 36 | SDA | I/O | Serial interface data line | |
| 37 | SCL | I | Serial interface clock line | |
| 38 | SCEN | I | Serial interface chip enable line | |
| 39 | SHDB | I | Shutdown input | **Note 2:** |
| 40 | GREST | I | System reset pin | |

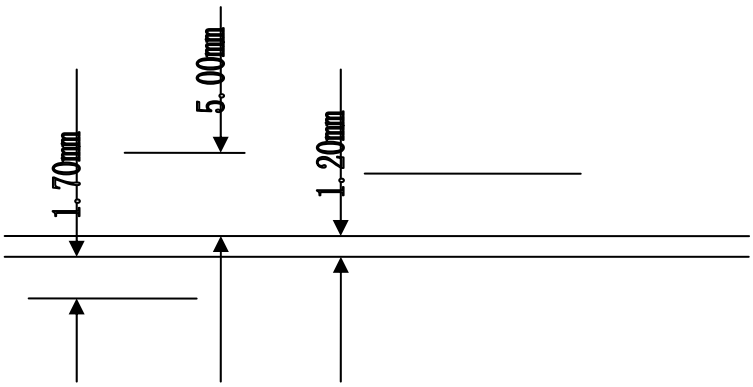
## 7.Structural diagram：

7.1LCD panel



7.2 PCB


50.0mm
46.9mm
43.9mm
R1.5mm*4
50.0mm
46.9mm
43.9mm
J025TTD RD001


5.00mm
1.70mm
1.20mm

## 8. 2.5" TFT- LCD PANEL Inspection standard:

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

Scope：Apply to 2.5″ 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".

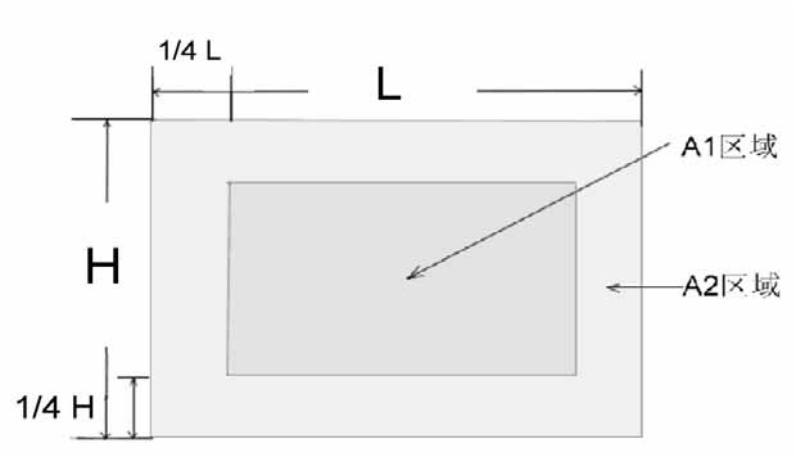
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD：

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 |
| | 0.5d>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 |
| | 0.5d>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 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. The voltage of supply power don't exceed maxmium limit.
2. The connector can’t connect board in reverse, or the board will be burnt and the products can't funtion well.
3. Please don’t touch it in order to keep your skin non-burn when you electrify the board(there is high voltage on the board).
4. It is a electronic product, so you need to take anti-static measure when you operate it.
5. 2.5” TFT-LCD panel is a glasswork, place carefully ,broken for fear.
6. The connection is “FPC”, which connect 2.5” TFT-LCD panel with PCB, Please operate it carefully in order to keep it well.
7. Don't touch the pin of "variable resistor" when you adjust "VR".