 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

Good Display Specifications

Type: 3.5inch TFT LCD module
Model No. GD40M05-GTT035KDH03-RM
Description:


- 3.5inch LCD with 320 x RGB x 240 dots
- Support Video input
- RoHS Compliant

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Issue Date: 2011.12.31



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 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0



Contents

1.	Notice -----	3
2.	Technical Specifications-----	3
3.	General Specifications -----	3
4.	The photo of the Product -----	4
5.	Setting the TFT LCD module-----	4
6.	Connection diagram-----	5
7.	The interface definition of the A/D board -----	7
8.	TFT LCD Panel Mechanical Drawing-----	8
9.	A/D Board Mechanical Drawing -----	9
10.	Product Label-----	10
11.	Precaution -----	10
12.	Trouble Shooting-----	11

 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

1. Notice: Important Safety Instructions

- The nominal voltage of DC input to the A/D board is 12V/5V, Please note that your AC/DC adapter's output plug need to match the DC input jack, the diameter of the jack is 5.5 mm.
- Don't put the A/D board on the back of LCD display or other metallic conductor without insulation in case of being burnt for short.
- Before connecting these input/output ports, Video port, it is strongly recommended that your turn off the A/D board and remove the DC 12V plug from the DC input jack.
- Don't put the A/D board into an airtight package. When it works, it will produce a certain heat.
- When assembling it, please use a suitable force; don't distort the PCB and other components.

CAUTION:

Information in this document is subject to change without notice. Please contact us if you have any questions or suggestions

2. Technical Specifications

2.1 Features:


- GD40M05-GTT035KDH03-RM TFT LCD module includes:
A/D board JD40M05,
3.5" Digital TFT LCD GTT035KDH03,
Keypad board, Power cable and Video cable
- DC/ DC & LED Backlight Driver & Video Decoder All In One
- NTSC / PAL System automatic identifying and converting
- Single Operation Voltage +12.0V/5.0V
- Video Signal Input
- OSD controls: Allow on-screen adjustments of Brightness, Contrast, Color and Reverse(Flip and Mirror)
- This product is RoHS compliant

2.2 Applications:

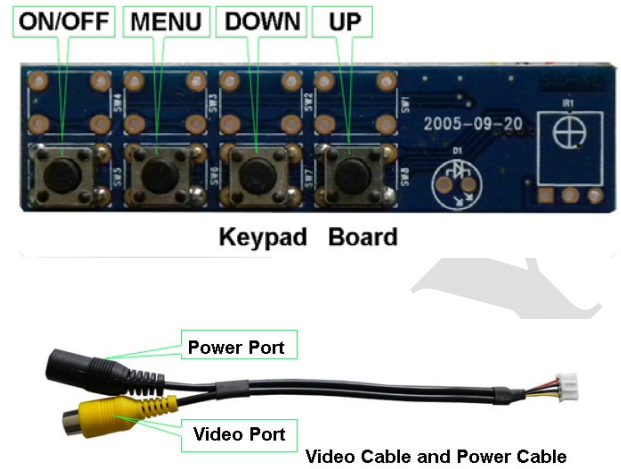
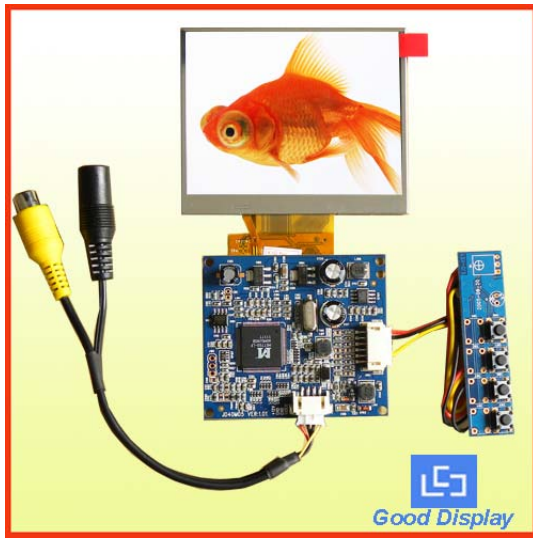
- Video Game Display
- Security
- Portable TV
- Office Electronics
- Industrial
- Instrument Display

3. General Specifications:

1. Screen Size: 3.5 inch (diagonal)
2. Display ratio: 4:3
3. Backlight: LED
4. Brightness: 300 cd/ m²
5. Resolution: 320(RGB)x240
6. View angle: 40°/60°/60°/60° (U/D/L/R)
7. Display dimension: 76.9(W)x63.9(H)x3.2(D) mm
8. Active Area: 70.08(H)x52.56(V) mm
9. A/D board dimension: 62.0 (W)x55.2 (H)x9.0 (D) mm
10. Single Operation Voltage: DC12V or DC5.0V
11. Input current: DC110mA±20mA
12. Power Consumption: 1.32 W
13. Start time: 1.3 s
14. Operation temperature: -20°C to 70°C
15. Storage temperature:-30°C to 80°C
16. Humidity: 5~95%RH

 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

4. The photo of the Product.



5. Setting the TFT LCD module.

5.1 Key operation, the keypad includes < ON/OFF>, < MENU>, < DOWN>, <UP>

The description of each key:

< ON/OFF>: Press the <ON/OFF> key on the keypad to turn the backlight ON or OFF. But this is not shutting off the power supply from AC/DC adapter, this only let the module into standby (power saving) status. If you want to shut off the power supply entirely, please pull the DC plug of the AC/DC adapter out from the DC input connector of the module.

<MENU>: Press the <MENU> key to pop the OSD menu on no menu status, or exit present menu level to its father menu level. The <MENU> key is confirm key also, it confirms your operation.

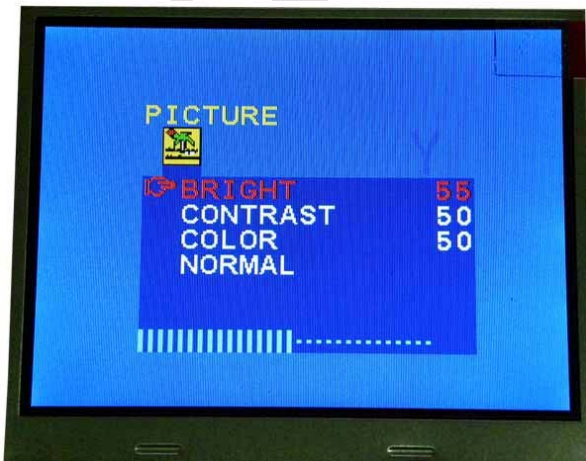
<DOWN>: Press the <DOWN> key to move the cursor (highlight bar) from “down” to “up” on the OSD menu, or reduce the parameters value from “large” to “small”. These parameters are such as Brightness, Contrast, Volume, etc.. In addition, it is a shortcut key to decrease the volume value at no menu status.


<UP>: Press the <UP> button to move the cursor(highlight bar) from “up” to “down” on the OSD menu, or increase the parameters value from “small” to “large”. These parameters are such as Brightness, Contrast, Volume, etc. In addition, it is a shortcut key to increase the volume value at no menu status.

5.2 OSD menu introduction (On Screen Display)

Press the <MENU> button, pop the top main menu.

Main OSD menu contains the following submenu: BRIGHTNESS, CONTRAST, COLOR, NORMAL





 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

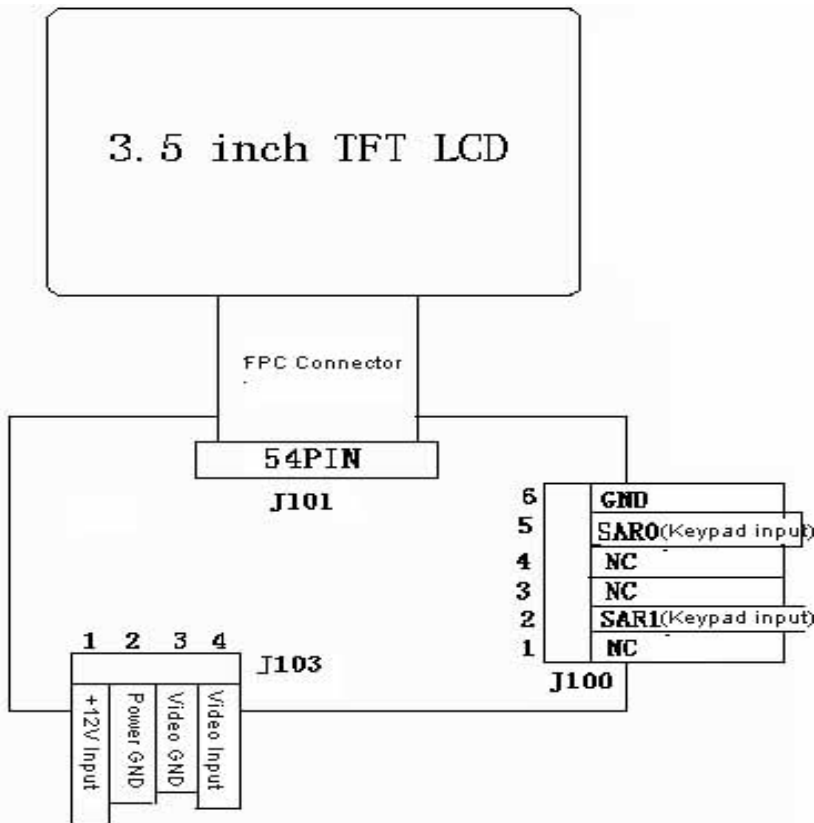
BRIGHT: When you press the **<Menu>** button move the cursor to the BRIGHT bar on the OSD menu, you can press **<Down>** button or **<Up>** button to adjust the image brightness value.


CONTRAST: When you press the **<Menu>** button move the cursor to the CONTRAST bar on the OSD menu, you can press **<Down>** button or **<Up>** button to adjust the image contrast value.

COLOR: When you press the **<Menu>** button move the cursor to the COLOR bar on the OSD menu, you can press **<Down>** button or **<Up>** button to adjust the image color value.

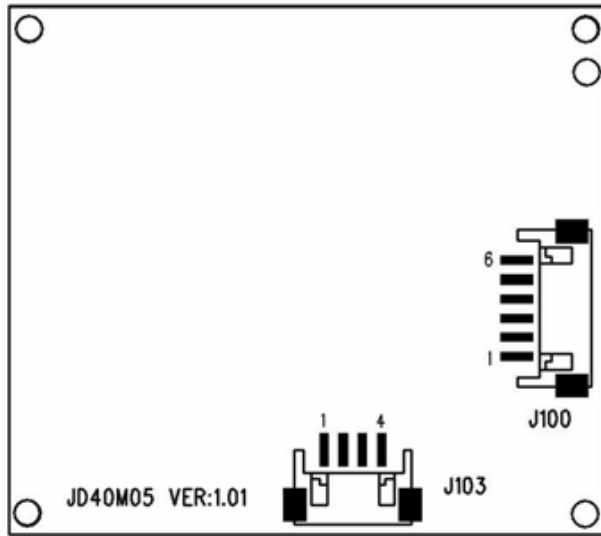
NORMAL: When you press the **<Menu>** button move the cursor to the NORMAL bar on the OSD menu, you can press **<Down>** button or **<Up>** button to reverse (flip  and mirror ) the image, and the indicator "NORMAL" on the OSD menu will be changed to be "INVERSE, MIRROR and DOWN" correspondingly, the image will be returned to original status when the indicator is NORMAL.

6. Connection diagram

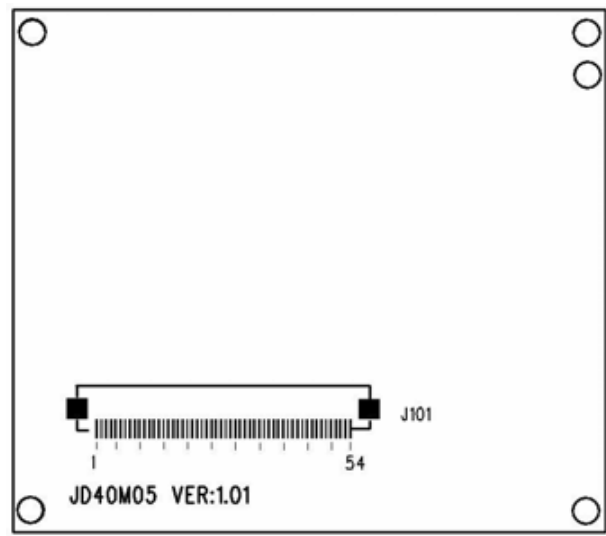


 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

A/D board Front side:

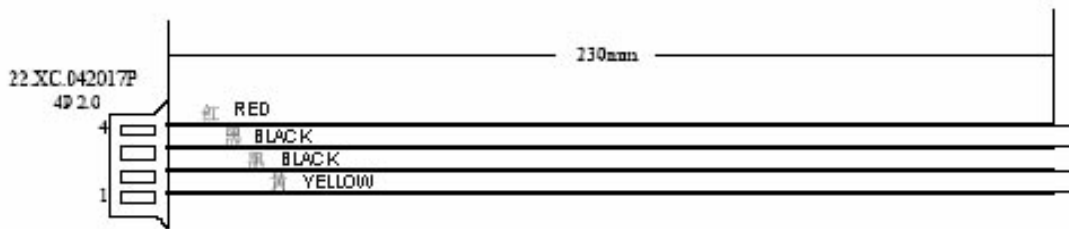


A/D board Back side:



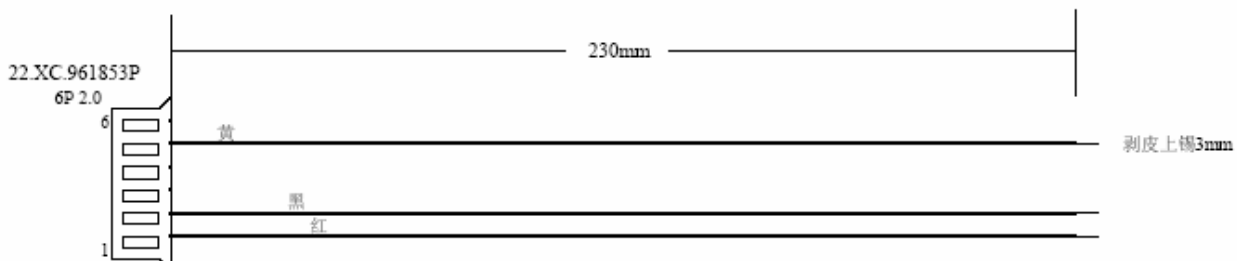
Cable description:

1. The length of Power supply and Video cable is 230mm, Part number is 22.XC.042017P, 4 PINs (pitch:2.0 mm)




No.	Cable Color	Function	Remark
1	Yellow	Video signal input	CVBS
2	Black	Video GND	GND
3	Black	Power supply GND	GND
4	Red	DC +12V input	+12V

2. The length of Keypad Cable is 230mm, Part number is 22.XC.961853P, 6 PINs (pitch:2.0 mm)



No.	Cable Color	Function	Remark
1	Red	Power Ground	GND
2	Black	Keypad Input	SAR0
3	White	No Connection	NC
4	Green	No Connection	NC
5	Yellow	Keypad Input	SAR1
6	Purple	No Connection	NC

 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

7. The interface definition of the A/D board

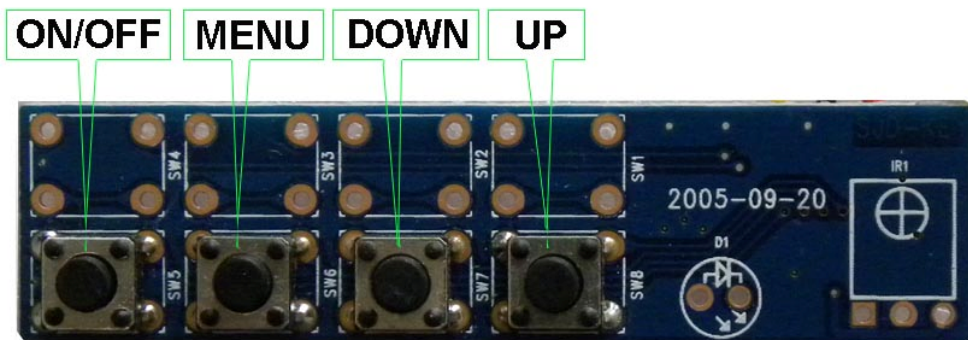
7.1 J103 interface definition:

PIN No.	Symbol	I/O	Description
1	+12V	I	DC power supply input
2	GND	-	GND
3	GND	-	GND
4	Video	I	Video signal input

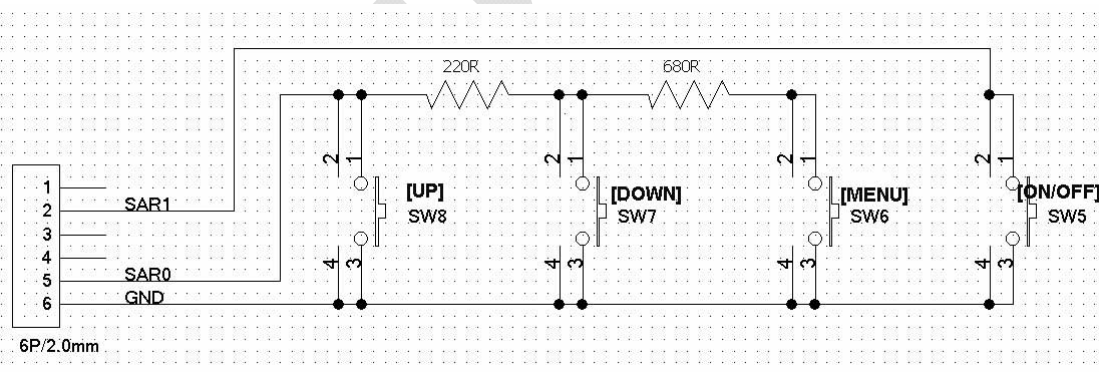
7.2 J100 interface definition:

PIN No.	Symbol	I/O	Description
1	NC	-	No Connection
2	SAR1	I	Keypad Input
3	NC	-	No Connection
4	NC	-	No Connection
5	SAR0	I	Keypad Input
6	GND	I	GND

7.3 Keypad Diagram:



Keypad Board





Good Display

LCD MODULE SPECIFICATIONS

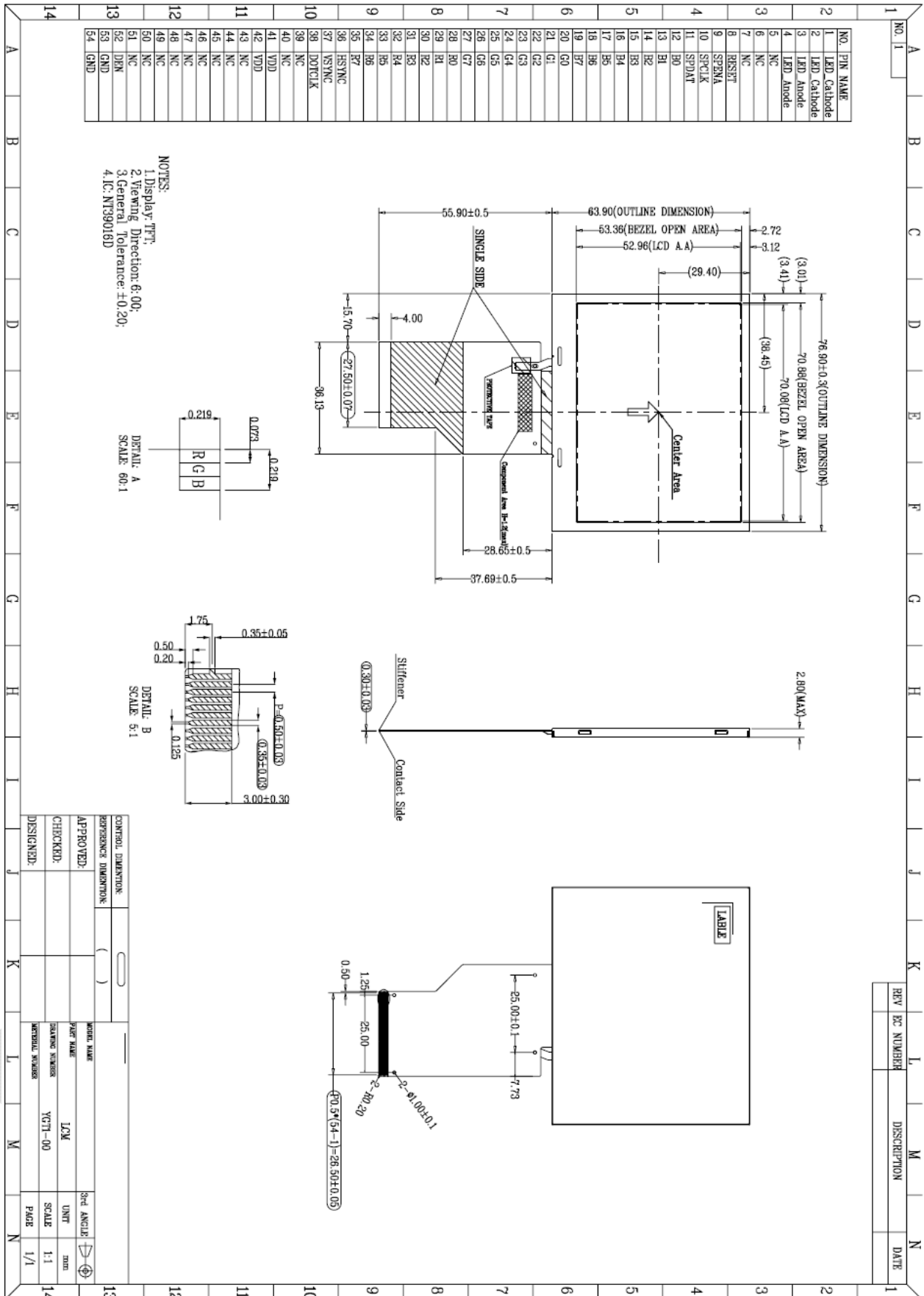
SPEC NO

GD40M05-GTT035KDH03-RM

REV NO

1.0

8. TFT LCD Panel Mechanical Drawing





Good Display

LCD MODULE SPECIFICATIONS

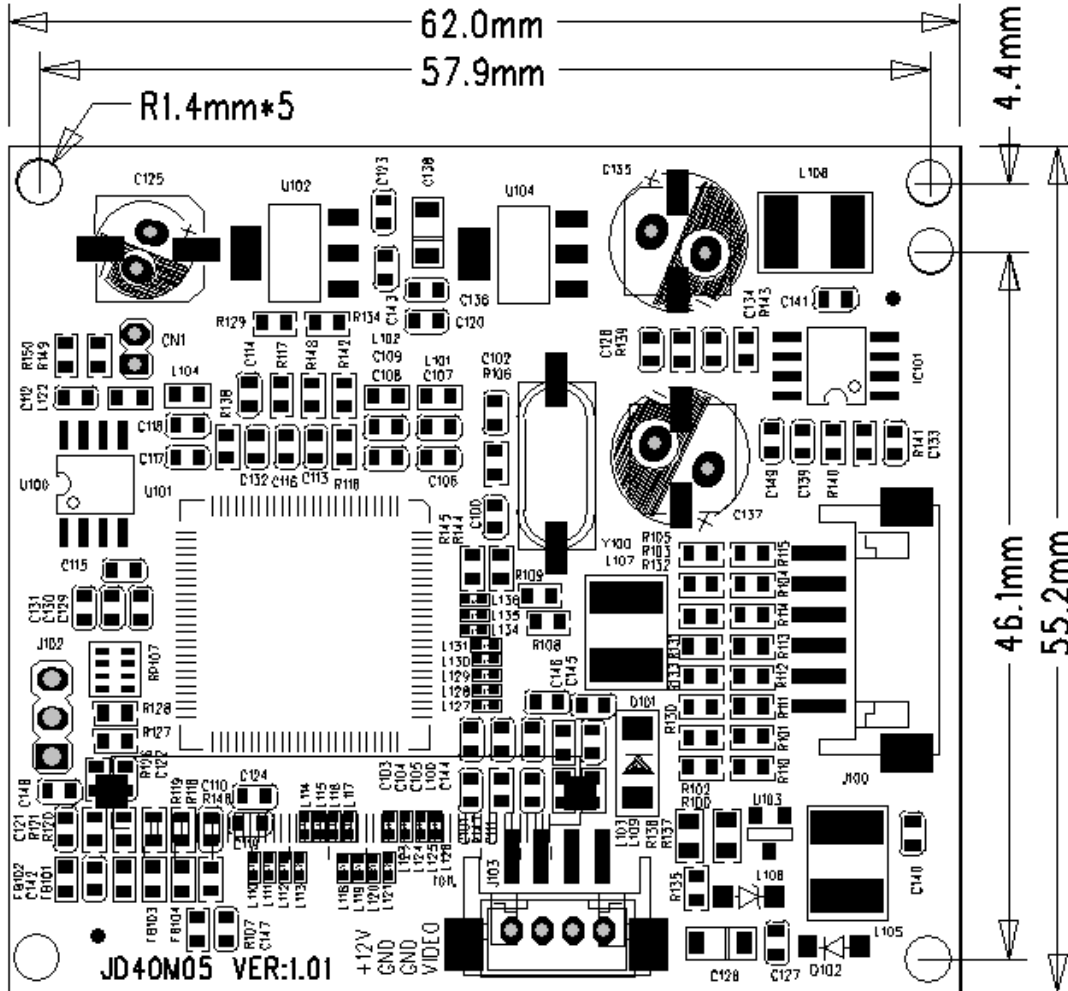
SPEC NO

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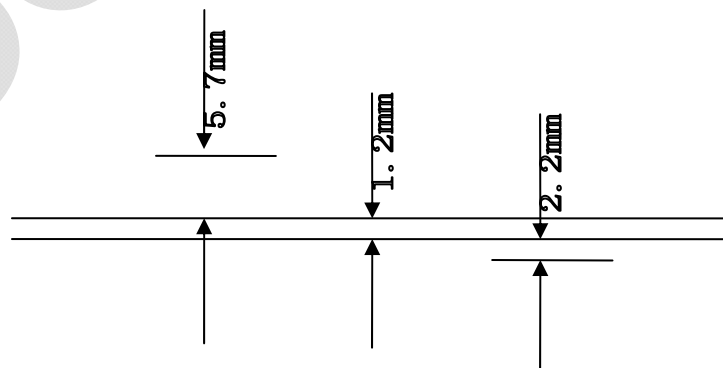
REV NO


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9. A/D Board Mechanical Drawing



A/D Board Dimension: 62.0 (W) × 55.2(H) × 9.0(D)mm

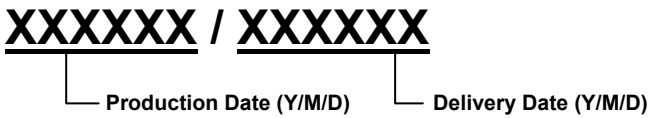


 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

10. Product Label




Label Dimension : 48.0X12.0mm



11. Precaution

For the sake of normal usage of this product, preventing incident from the electric shock or fire etc., please follow the precaution below instructions:

1. Before operating this appliance, read these instructions, keep these instructions, heed all warnings, and follow these instructions.
2. The DC (Direct current) supply of appliance is from the indicated AC (Alternating Current)/DC adapter. The AC voltage and AC frequencies C should be in of accord with the description of its on Metal card, the power adapter should be away from the hotness, being put in the well ventilated place.
3. AC power electric outlet and the AC power line of the AC/DC adaptor must be noticed to connect a ground well, and have an enough power supply if needed.
4. Input electric voltage of DC supply of our board is 12V/5V, the error margin is not over and above +/- 1V/, The value of the electric current changes for the different LCD and that whether to have audio amplifier or not etc. Pay attention to connect well between 12V/5V DC power electric outlet and the power electric outlets of the board.
5. Do not place the board inside of the Hull or Box that do not transmit heats, with the environment the airiness spreads well, Do not let the sunshine contact the board or other heat sources close to it, The heat sources, such as radiators, stoves, or their apparatus that produce heat.
6. Pay attention to prevent it from contacting with wetness or the dust, in order to protect the electric circuit from decaying.
7. While assembling, pay attention to reserve the certain space to keep the air spreads well, while it can prevent the conductor (for the fixed sheet iron of the of the controller board and the inverter) from contacting with the units of electricity board, from happening the short circuit with the board.(knothole install position bore etc. excepted) .
8. While assembling, pay attention to make sure that the controller board is prevented from not being curved because of the additional pressure.
9. While assembling, notice that the controller board is in right connection with inverter, LCD, OSD keypad, choosing the right LCD work electric voltage(over low the display will not right, LCD may be burnt under over the high work voltage), The power is ON after all checking is well.
10. The circuit signal on the Keypad board, the infrared acceptor and the inverter must pass directly the electric cable to connect to the IC on the board, the attention is that avoiding short circuit and the damages from the static electricity on the hand ESD.
11. All connectors of output or input should be operated under the situation of cutting the power (pull out to put to deal with contact).
12. This product is applicable to common business usage and domestic usage, if it is applied into the environment with high temperature (such as in outdoor), high humidity, the strong vibration (carried in car), strong electromagnetism radiation, please contact our sales personnel.
 - a) Please pull out the power supply if you do not use it in a long time.

 Good Display	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD40M05-GTT035KDH03-RM	REV NO	1.0

12. Trouble Shooting

If experiencing trouble with the module, or it fails to operate correctly, please refer to the following instructions before returning to us for repairs.

Condition	Check Point
1. The picture does not appear	Check to see that all the I/O and power cables is firmly seated in the socket. Check if the brightness control is at the appropriate position, not at the minimum.
2. The screen is not synchronized	Check if the I/O signal cable is firmly seated in the socket. Check if the output level matches the input level. Make sure the signal timings of the computer system are within the specification of the module.
3. The screen is too bright (too dark).	Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
4. The Screen is shaking or waving	Press the Auto adjustment control to adjust. Moving all objects which emit a magnetic field such as motor or transformer, away from the module. Check if the specific voltage is applied. Check if the signal timing of the computer system is within the specification of module.

If you are unable to correct the fault by using this chart, stop using your module and contact us.