 <b>Good Display</b>	LCD MODULE SPECIFICATIONS	SPEC NO	
	GD102M03-GTIEJ080NA	REV NO	1.0

# Good Display Specifications

Type: 8 inch TFT LCD module  
Model No. GD102M03-GTIEJ080NA  
Description:


- 8 inch LCD with 800 x RGB x 600 pixels
- Supports CVBS & VGA input
- RoHS Compliant

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Issue Date: 2011.6.5



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### 1. Notice: Important Safety Instructions

1.1 The nominal voltage of DC input to the A/D board is 12V, The size of DC current depends on the TFT LCD, audio amplifier etc. 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.

1.2 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.

1.3 Don't put the A/D board into an airtight package. When it works, it will produce a certain heat.

1.4 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:


- 8 inch SVGA Active Matrix Color TFT LCD Module: GD102M03-GTIEJ080NA/XX-XX serial includes: AD board: JD102M03, 8" Digital TFT LCD: GTIEJ080NA-05A, Keypad board, Power cable, Video cable and VGA cable, 8" Touch Screen:GDT4W08001 (Option), Touch screen driver with USB/RS232 port (Option)
- DC/ DC Converter, LED Backlight Driver, Video and VGA Decoder All In One
- NTSC / PAL System automatic identifying and converting
- Single Operation Voltage +12.0V (Min9.0V, Max15.0V)
- Supports Video(CVBS) & VGA Signal Input (S-video is optional)
- OSD controls: Allow on-screen adjustments of Brightness, Contrast, RGB Auto Color Balance, Reverse, H-Position, V-position
- Support Touch Screen Function (Option)
- This product is RoHS compliant

#### 2.2 Applications:




- Arcade games,
- ATM Machines,
- Aviation simulators,
- Military, Medical, Marine,
- Security,
- Industrial equipment,
- Instrumentation

### 3. General Specifications:

Item	Specifications	Unit
Model name	GD102M03-GTIEJ080NA /XX-XX	
Screen size	8 (diagonal)	inch
Display ratio	4:3	
Resolution	800×(RGB)×600	
Backlight	LED	
Brightness	250	cd/m <sup>2</sup>
LED life time	30000(Typ.)	hr
View angle	50/70/70/70 (U/D/L/R)	°
Input/output interface	Video and S-video (Option)	
	D-Sub 15 pin female for VGA	
	USB (A Type) or RS-232 (DB9 Female) for Touch Screen Driver (Option)	
Display dimension	183.0(W)×141.0(H)×5.6(D)	mm
TFT-LCD Active area	162.0(W) × 121.5(H)	mm
A/D board dimension	128.8(W)×85.4(H)×7.8(D)	mm
Operation voltage	DC12.0(Typ.) (Min.9.0, Max.15.0)	V
Input current	DC320±30 (without audio amplifier) DC540±30 (with audio amplifier)	mA
Power consumption	3.84	W
Start time	2.5	s
Touch Screen Controller	4-wire Resistive Driver USB/ RS232 (Option)	
Operation temperature	-20 to 70	°C
Storage temperature	-30 to 80	°C
Humidity	5~95	%RH

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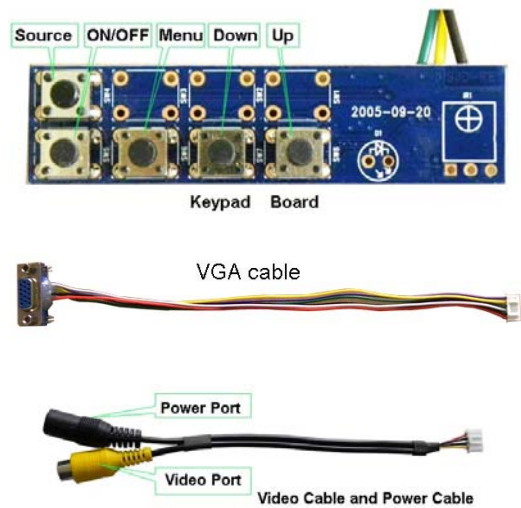
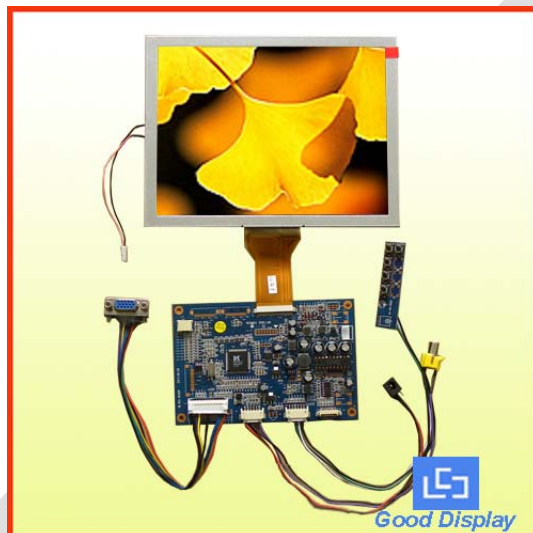
#### 4. Ordering Information


Parameter	GD102M03-GTIEJ080NA	GD102M03-GTIEJ080NA/4-02	GD102M03-GTIEJ080NA/4T1-02	GD102M03-GTIEJ080NA/4T2-02	Unit
Support CVBS input	Yes	Yes	Yes	Yes	
Support VGA input	Yes	Yes	Yes	Yes	
Touch panel type	-	4W Resistive	4W Resistive	4W Resistive	
Touch screen interface	-	-	USB	RS232	
Display dimension	183.0x141.0x5.6	183.0x141.0x7.1	183.0x141.0x7.1	183.0x141.0x7.1	mm
Accessory	None	8" Touch screen GDT4W08001	8" Touch screen GDT4W08001 and T/P Driver with USB port	8" Touch screen GDT4W08001 and T/P Driver with RS232 port	
Unit module net weight (including accessory)	0.32	0.40	0.53	0.57	Kg
<b>Packing Information</b>					
Box Information	  				
	Box Tare Weight:	0.1Kg	1.5Kg		
Package Dimension:	24.0x17.0x9.0cm	52.0x27.0x28.0cm			
LCD Modules Capacity (Without T/P Driver and Cable)	2sets		28sets		
Touch Screen Drivers Capacity	100pcs		1400pcs		
Touch Screen Cables Capacity	1000pcs		14000pcs		
Driver Cables Capacity	30pcs		420pcs		

Remark: The above information is just for your reference, we will choose the suitable outer carton for you according to the ordering quantity.

#### 5. The pictures of the Product.

GD102M03-GTIEJ080NA TFT LCD module:

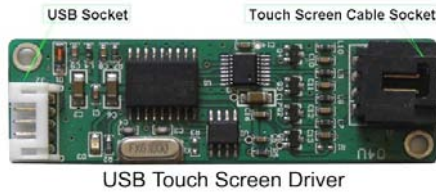


 <b>Good Display</b>	LCD MODULE SPECIFICATIONS	SPEC NO	
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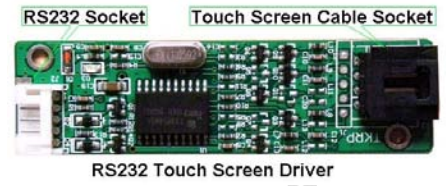
**The accessory kit (Option):**



**8inch Touch Panel and USB Driver board**



USB Touch Screen Driver



RS232 Touch Screen Driver



USB cable



RS232 cable



Touch screen Cable

**6. Setting the TFT LCD module.**

**6.1 Key operation**, the keypad includes **<Source>**, **< ON/OFF>**, **< Menu>**, **< Down>**, **<Up>**

The description of each key:

**< Source>**: Press the **<Source>** key to switch the input signal between Video and VGA.

**< 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.

**6.2 OSD menu introduction (On Screen Display)**

Press the **<Source>** key to switch the input signal between Video and VGA.


**6.2.1 While the Source is Video Signal, press the <Menu> button, pop the top main menu.**

Main OSD menu contains the following submenu as below: BRIGHT, CONTRAST, NORMAL, COLOR, EXIT.



**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

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press **<Down>** button or **<Up>** button to adjust the image contrast 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 the image, and the item “**NORMAL**” on the OSD menu will be changed to be “**DOWN**” correspondingly.

**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.

**EXIT:** When you press the **<Menu>** button move the cursor to the **EXIT** bar on the OSD menu, then press **<Down>** or **<Up>** button to confirm the **EXIT** operation, it will exit the present level menu to its father level menu.

### 6.2.2 While the Source is VGA Signal, press the **<Menu>** button, pop the top main menu.

Main OSD menu contains the following submenu as below: **BRIGHT**, **CONTRAST**, **NORMAL**, **EXIT**, **HPOSITION**, **VPOSITION**, **AUTO**



**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.


**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 the image, and the item “**NORMAL**” on the OSD menu will be changed to be “**DOWN**” correspondingly.

**EXIT:** When you press the **<Menu>** button move the cursor to the **EXIT** bar on the OSD menu, you can press **<Down>** or **<Up>** button to confirm the **EXIT** operation, and it will exit the present level menu to its father level menu.

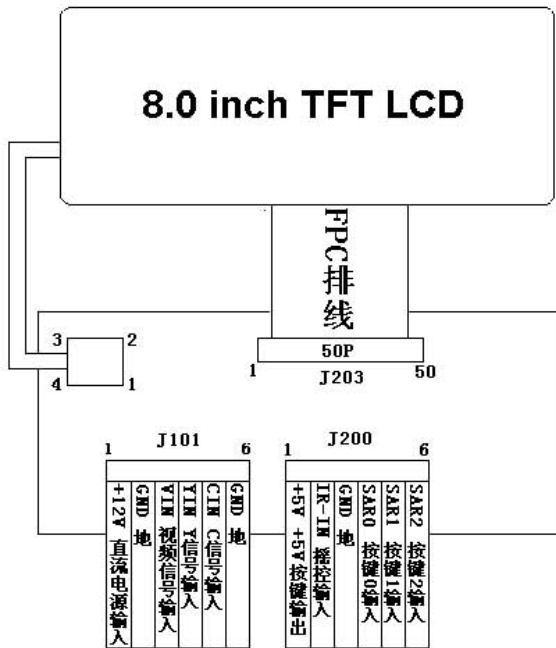
**HPOSITION:** When you press the **<Menu>** button move the cursor to the **HPOSITION** bar on the OSD menu, you can press **<Down>** or **<Up>** button to adjust the Horizontal image position on the LCD screen.

**VPOSITION:** When you press the **<Menu>** button move the cursor to the **VPOSITION** bar on the OSD menu, you can press **<Down>** or **<Up>** button to adjust the Vertical image position on the LCD screen.

**AUTO:** When you press the **<Menu>** button move the cursor to the **AUTO** bar on the OSD menu, you can press **<Down>** or **<Up>** button to do a quick auto config for image on no OSD menu status, it adjust phase, clock and image horizontal and vertical position.

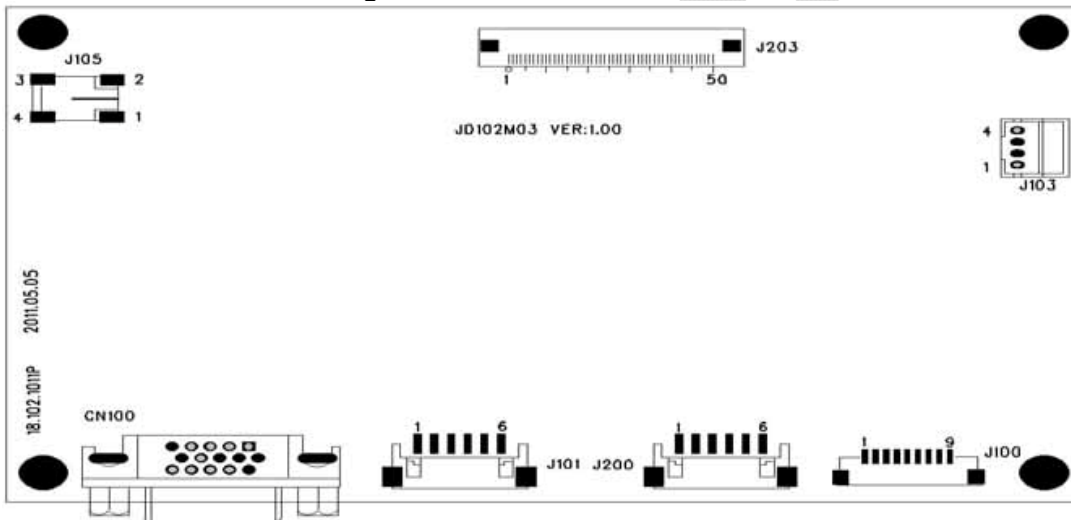
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## 7. Connection Diagram



## 8. The interface definition of the A/D board

### 8.1 A/D board:JD102M03 Diagram




### 8.2 J101 interface definition:

PIN No.	Symbol	I/O	Description
1	+12V	I	DC power supply input
2	GND	-	Ground
3	Video	I	Video signal input
4	Y-IN	I	Brightness signal input
5	C-IN	I	Color signal input
6	GND	-	Ground

### 8.3 J200 interface definition:

PIN No.	Symbol	I/O	Description
1	+5V	O	+5.0V output
2	IR-IN	I	Remote input

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3	GND	I	Ground
4	SAR0	I	Keypad 0 input
5	SAR1	I	Keypad 1 input
6	SAR2	I	Keypad 2 input

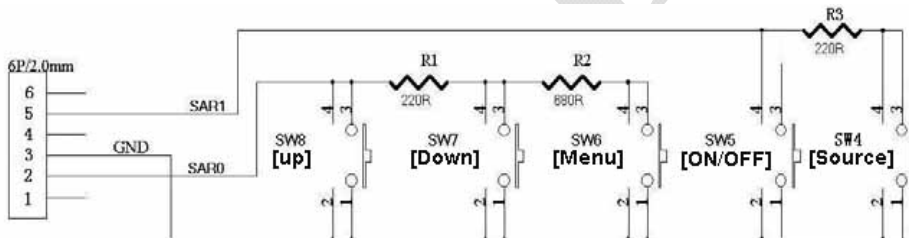
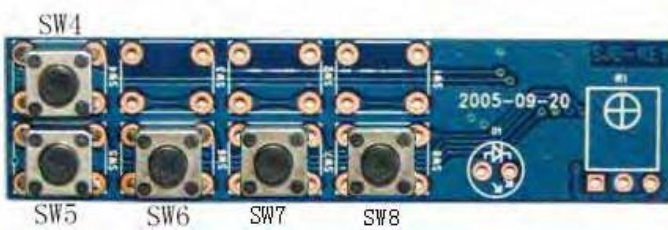
**8.4 J100 interface definition:**

PIN No.	Symbol	I/O	Description
1	GND	-	Ground
2	VGAL	I	VGA Audio Left channel input
3	VGAR	I	VGA Audio Right channel input
4	GND	-	Ground
5	VL	I	Video signal Audio Left channel input
6	VR	I	Video signal Audio Right channel input

**8.5 J103 interface definition:**

PIN No.	Symbol	I/O	Description
1	R-OUT	O	Audio Right channel output
2	GND	-	Ground
3	GND	-	Ground
4	L-OUT	O	Audio Left channel output

**8.6 Keypad diagram:**



**9. Support Display Resolution Mode:**

VGA  
640 x 480 -- 60 Hz  
640 x 480 -- 72 Hz  
640 x 480 -- 75 Hz

SVGA  
800 x 600 -- 56 Hz  
800 x 600 -- 60 Hz  
800 x 600 -- 72 Hz  
800 x 600 -- 75 Hz

XGA  
1024 x 768 -- 60 Hz

※ Recommend customer to use SVGA 800x600 resolution.





Good Display

LCD MODULE SPECIFICATIONS

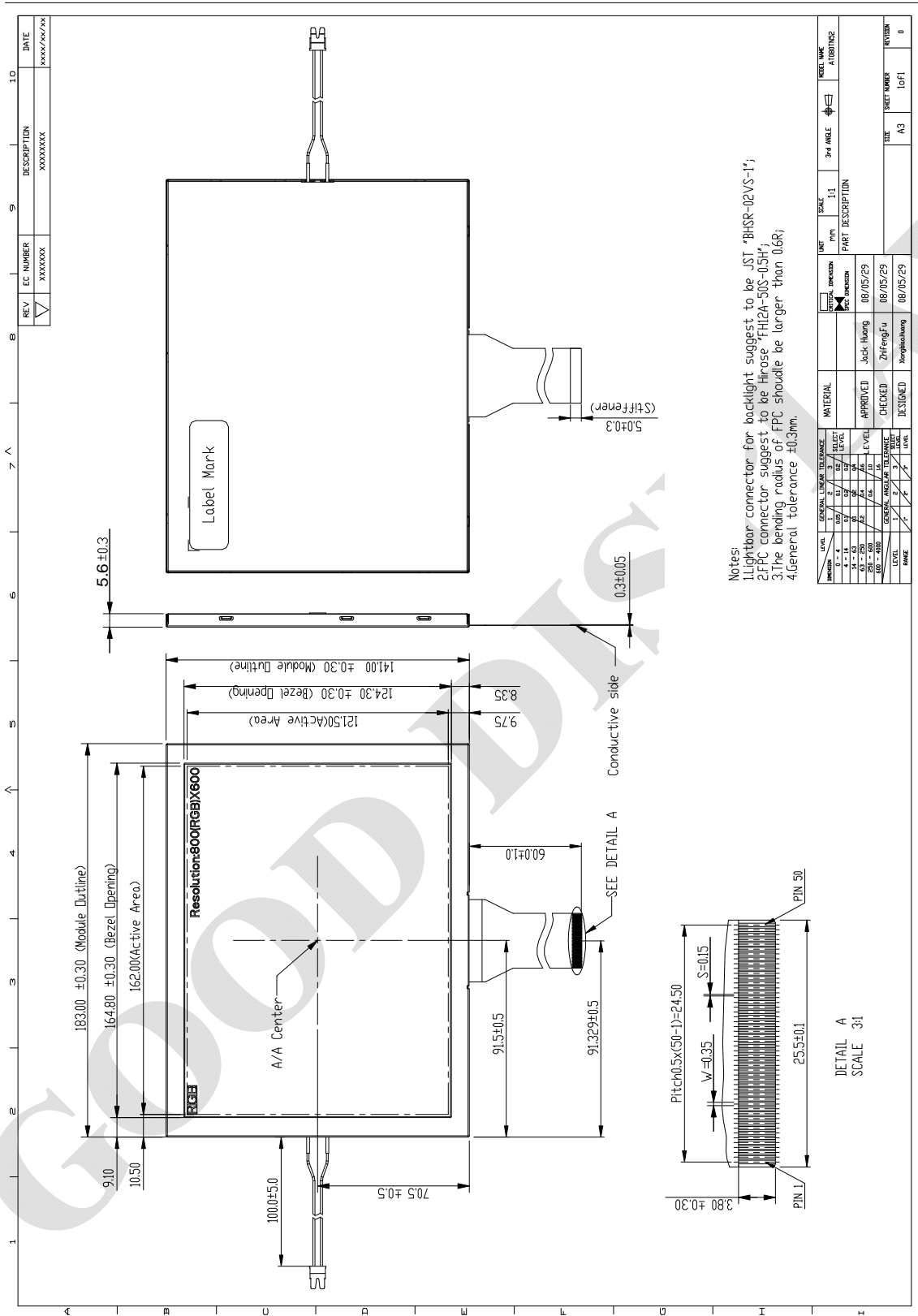
GD102M03-GTIEJ080NA

SPEC NO

REV NO

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10. TFT LCD Panel Mechanical Drawing





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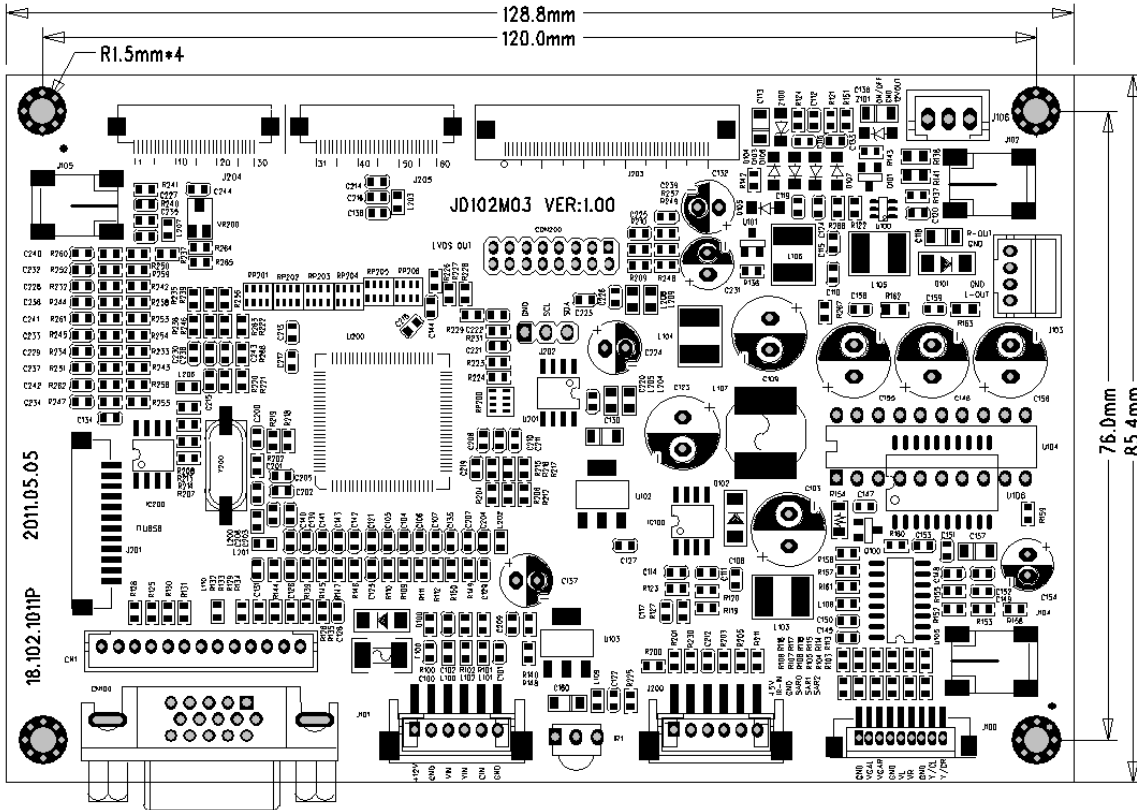
SPEC NO

GD102M03-GTIEJ080NA

REV NO

1.0

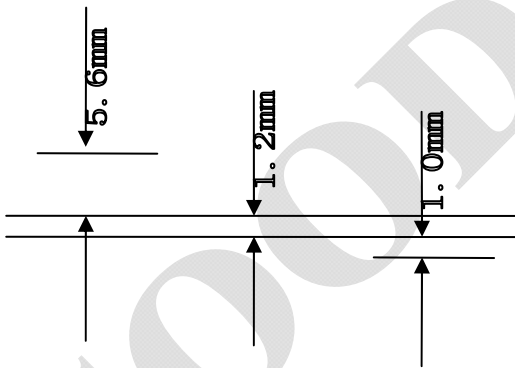
11. A/D Board: JD102M03 Mechanical Drawing



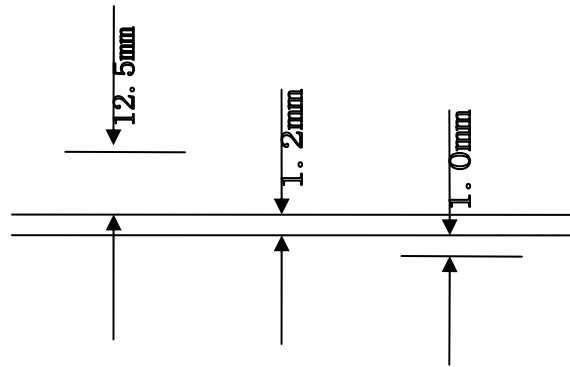
A/D board dimension:

With VGA port: 128.8 (W) × 85.4(H) × 14.7(D)mm

Without VGA port: 128.8 (W) × 85.4(H) × 7.8(D)mm



Without VGA Port



With VGA Port



Good Display

LCD MODULE SPECIFICATIONS

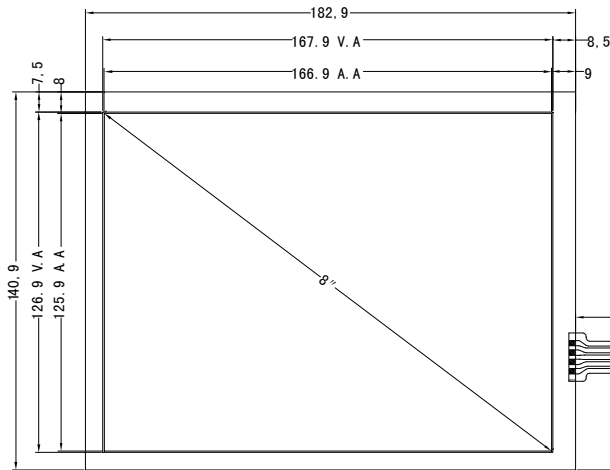
SPEC NO

GD102M03-GTIEJ080NA

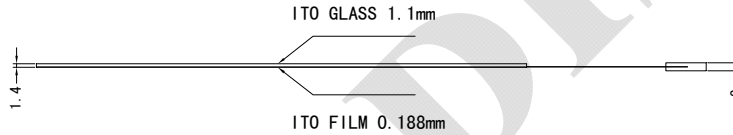
REV NO

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12. Touch Screen: GDT4W08001 Mechanical Drawing (Option)




PIN	OUT
1	XL
2	YU
3	XR
4	YD



Notes:

1. Type: Film to Glass
2. Operating Voltage:  $\leq 10V$
3. Operation Temperature:  $-10^{\circ}C \sim 60^{\circ}C$   
Storage Temperature:  $-20^{\circ}C \sim 70^{\circ}C$
4. Life Time:  $> 1,000,000$  times
5. Connect Material: FPC
6. Response Time:  $\leq 10ms$
7. Linearity:  $\leq 1.5\%$
8. Transmittance:  $\geq 80\%$
9. Surface Hardness  $\geq 3H$  (pencil)
10. Operation force:  $20g \sim 80g$
11. Resistance: X:  $380\Omega - 850\Omega$   
Y:  $210\Omega - 550\Omega$



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#### 14. Product Label



Label Dimension : 48.0X12.0mm

XXXXXXXX / XXXXXXXX


└── Production Date (Y/M/D)

└── Delivery Date (Y/M/D)

#### 15. 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, the error margin is not over and above +/- 3V/, 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 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.
13. Please pull out the power supply if you do not use it in a long time.

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### 16. 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 position of the screen is not in the center	Adjust the H-position, and V-position, or perform the auto adjustment.
4. The screen is too bright (too dark).	Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
5. 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.