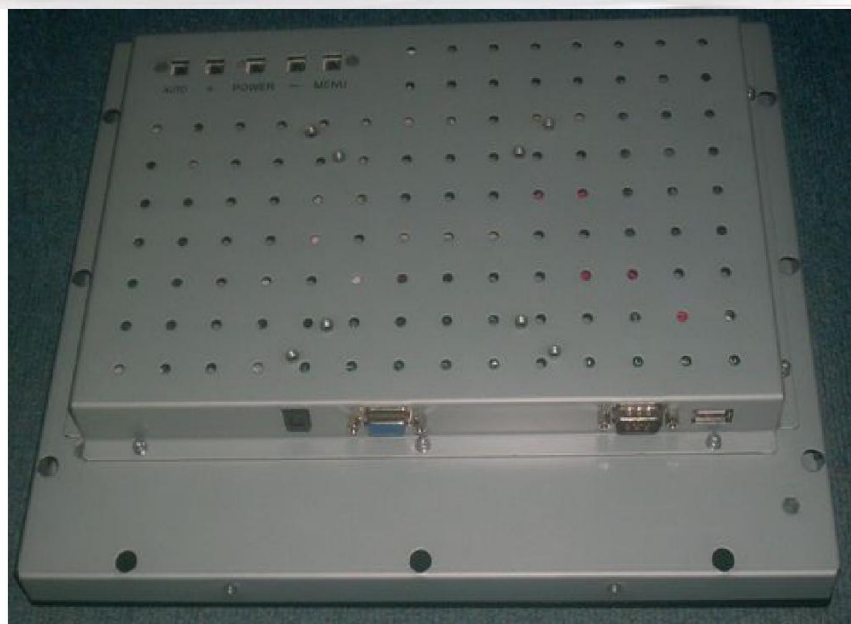


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**12.1" Open-Frame Monitor with 3mm/4mm Resistive  
Touch screens**

**Model: OTM-12.1resistive**



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## **Safety Instructions**

- 1. Read these safety instructions carefully.**
- 2. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.**
- 3. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.**
- 4. Keep this equipment away from humidity.**
- 5. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.**
- 6. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.**
- 7. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.**
- 8. Position the power cord so that people cannot step on it . Do not place anything over the power cord.**
- 9. All cautions and warnings on the equipment should be noted.**
- 10. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.**
- 11. Never pour any liquid into an opening. This may cause fire or electrical shock.**
- 12. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.**
- 13. If one of the following situations arises, get the equipment checked by service personnel:**
  - A) The power cord or plug is damaged.**
  - B) Liquid has penetrated into the equipment.**
  - C) The equipment has been exposed to moisture.**
  - D) The equipment does not work well, or you cannot get it to work according to the user's manual.**
  - E) The equipment has been dropped and damaged.**
  - F) The equipment has obvious signs of breakage.**
- 14. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20°C OR ABOVE 70°C. THIS MAY DAMAGE THE EQUIPMENT.**

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## 1.1 Introduction

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Your LCD openframe touchmonitor is a 12.1” SXGA TFT color display with the following features:

- Bezel seal standard: IEC IP64
- Long lasting product cycle-enclosure controlled by specifications
- Future generation panels phased-in without external changes
- High quality panel with high brightness,high contrast ratio and broad viewing angle
- Multiple mounting options including VESA mount, horizontal or vertical bracket-mount
- Resistive technology on pure glass for the ultimate in image quality
- Finger or gloved hand operation
- USB and Serial touch interface port

## 1.2 Product Features

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### 1.2.1 General

Model	OTM-12resistive
Series	Metal-cased openframe
Monitor Dimensions	Width: 298mm Height: 237mm Depth47mm
Weight (N.W/G.W)	4.3Kg /5.8 Kg (Approx.)
LCD Type	12.1”Active matrix TFT-LCD (Panel Model :G121SN01 V3)
Video Input	Accepts RGB input directly, DVI,HDMI and Audio function can be supported optionally
Recommend Resolution	800×600@75Hz
OSD controls	Allow on-screen adjustments of Brightness, Contrast Ratio, Auto-adjust, Phase, Clock, H/V Location, Languages, Function, Reset
Power Supply	Type: External brick Input (line) voltage: 100-240 VAC, 50-60 Hz Output voltage/current: 12 volts at 4 amps max
Mount Interface	1)VESA 75mm and 100mm 2)Mount bracket, horizontal or vertical
Regular Warranty	5 years for SAW Sensor; 3 years for controller; 1 year for LCD
Agency Approval	FCC,CE

### 1.2.2 LCD Specification

Active Area(mm)	246.0(H)×184.5(V)
Resolution	800×600@75Hz
Dot Pitch(mm)	0.3075×0.3075
Nominal Input Voltage VDD	+3.3V(Typ)

<b>Viewing angle (v/h)</b>	<b>60°/70°</b>
<b>Contrast</b>	<b>600:1</b>
<b>Luminance(cd/m2)</b>	<b>400</b>
<b>Response Time(Rising/Falling)</b>	<b>10s/20s</b>
<b>Support Color</b>	<b>16.2M/262K colors</b>
<b>Backlight MTBF(hr)</b>	<b>50000</b>
<b>NOTE: The LCD Specification will change follow the relevant LCD panel brand and model</b>	

### 1.2.3 Touchscreen Specification

<b>Type</b>	<b>Resistive touch screen</b>
<b>Resolution</b>	<b>4096*4096</b>
<b>Light Transmission</b>	<b>92%</b>
<b>Touch Life Cycle</b>	<b>50 millions</b>
<b>Touch Response time</b>	<b>16ms</b>
<b>Touch System Interface</b>	<b>RS-232 and USB interface</b>
<b>Power consumption</b>	<b>+5V@80mA</b>

### 1.2.4 External AC Power Adapter

<b>Output</b>	<b>12V/DC/4A</b>
<b>Input</b>	<b>100-240 VAC, 50-60 Hz</b>
<b>MTBF</b>	<b>50000 hr at 25°C</b>

### 1.2.5 Environment

<b>Operating Temp.</b>	<b>-10~50°C</b>
<b>Storage Temp.</b>	<b>-20~60°C</b>
<b>Operating RH:</b>	<b>20%~80%</b>
<b>Storage RH:</b>	<b>10%~90%</b>

## 1.3 System setup

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### 1.3.1 Preparing for First-time Use

Before you start to set up the LCD Monitor, You should have at least the following items ready in your accessory box:

- A) 12V DC Power adapter;
- B) Power cord for adapter;
- C) VGA cable;
- D) USB cable or RS232 cable;
- E) L-brackets: Two standard L-brackets are included;

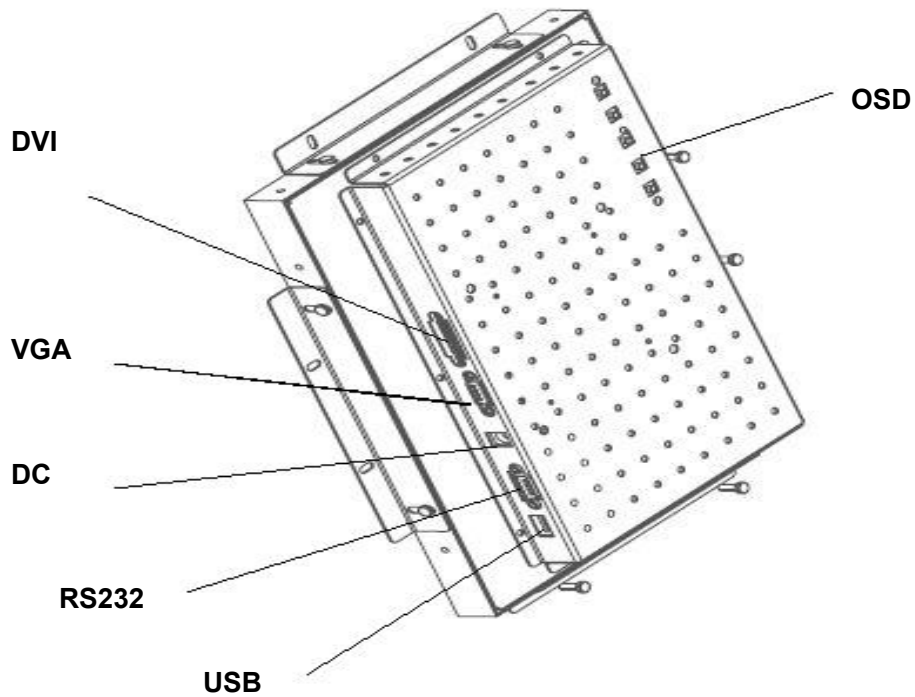
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F) CD driver for LCD Monitor;

### 1.3.2 I/O arrangement

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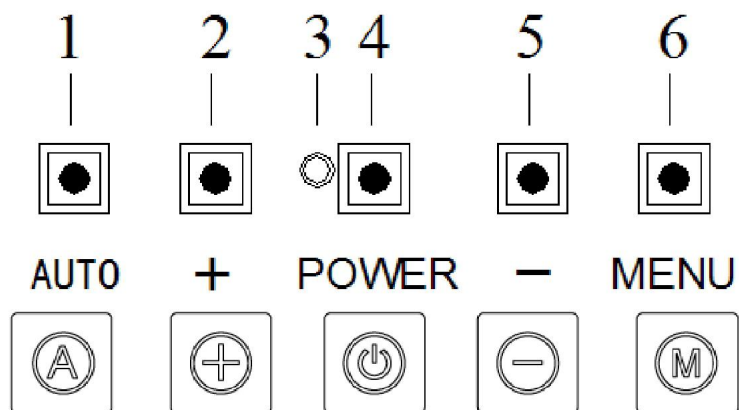
The diagram shows the VGA , DVI port, RS-232 port, USB port and DC Power inlet



### 1.3.3 OSD Control

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#### OSD buttons



#### Adjusting with OSD control

Five different keys are well-defined for operation . They are labeled on the keypad.

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- A) **[Power]** Key is designated for Power On/Off
  - B) **[Menu]** Key is designated for Menu/Enter function depending on the selected item. Pressing [Menu] can invoke OSD menu. After that, [Menu] is also an entry key.
  - C) **[+]** key is designated for selection function in up direction in OSD menu and also to increase the value on selected function.
  - D) **[-]** key is designated for selection function in down direction in OSD menu and also to decrease the value on selected function.
  - E) **[AUTO]** key is designated for invoking AUTO ADJUST function at any time once is pressed for H-position, V-position, Pixel Clock and Phase for an optimal image.

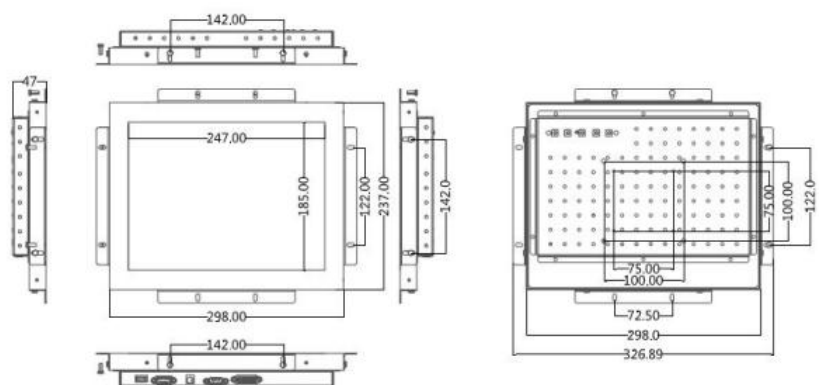
### 1.3.4 Setup the driver

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1. Make sure the Touchscreen Cable is properly connected. The Setup program cannot configure the touchscreen without it.
2. Insert the CD Kit into your PC system's CD drive.
3. Click the SETUP.EXE installation program. The Setup program begins to execute and load the WiViTouch'S driver.
4. Follow the instructions displayed on the screen. Make your selections carefully when answering questions to complete the installation.

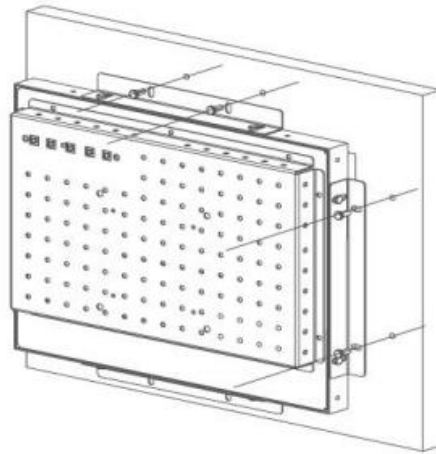
### 1.4 Mechanical Dimension

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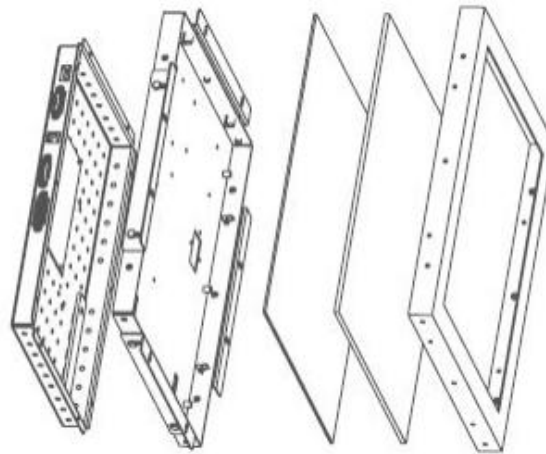
### 1.4.1 Touch Monitor Mounting guide

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1. Build 8 screw studs along the four sides of the cut out opening based on the dimension given on the drawing above.
2. Tighten the screw stud with hex nut and make sure it is stable.

### 1.4.3 Exploded Diagram



## 1.5 Electrical Block Diagram

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The LCD touch monitor is constructed based on steel open frame architecture. It consists of a 12.1" LCD panel, an DC to AC inverter board to support a set of cold cathode fluorescent light, an analog to digital converter board (AD Board) to convert analog RGB signals to digital ones, and a touchscreen used as a pointing device. A metal chassis supports the whole module.

### Block Diagram

