



**THE DISPLAY CHOICE
OF PROFESSIONALS™**

www.agneovo.com

TX-22 LED-Backlit Touch Display
User Manual

The information contained in this document is subject to change without notice.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be reproduced, translated to another language or stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission. Windows is a registered trademark of Microsoft, Inc. Other brand or product names are trademarks of their respective holders.

The test results show that this device meets the FCC rules. Those limits are set to protect residential areas from the devices with harmful emission. This device will produce, use and radiate radio frequency energy. In addition, failure to follow the user's manual to install or use this device might produce harmful interference with radio communication. Notwithstanding the foregoing, it does not guarantee that this type of harmful interference does not occur in some special installations. The interference caused by this device to the reception of radio or television signals may be verified by turning it on and off. Any changes or modifications to this TFT LCD would void the user's authority to operate this device.

TABLE OF CONTENTS

Usage Notice

Precautions	4
-------------------	---

Chapter 1: Introduction

1.1 About TX-22	5
1.2 Touch Screen for TX-22.....	5
1.3 Package Overview	6

Chapter 2: Installation

2.1 Product Overview	7
2.1.1 Front View	7
2.1.2 Bottom View (Without Stand)	7
2.2 VESA Mount for Your Monitor.....	8
2.3 Start Your Installation	9
2.4 Connecting the Display	10

Chapter 3: User Controls

3.1 Side Panel Controls.....	11
3.2 How to Use the OSD Menus	12
3.3 On-Screen Display Menus	13

Chapter 4: Appendix

4.1 Troubleshooting	14
4.2 Warning Signal	15
4.2.1 No Signal.....	15
4.2.2 Going to Sleep.....	15
4.2.3 Out of Range	15
4.3 Product Dimensions	16
4.4 Compatibility Modes	18
4.5 Touch Screen Driver Installation.....	19
4.5.1 TX-22 Driver Install Instructions	19

Chapter 5: Specifications

5.1 Display Specifications	21
----------------------------------	----

USAGE NOTICE



Warning - To prevent the risk of fire or shock hazards, do not expose this product to rain or moisture.



Warning - Please do not open or disassemble the product as this may cause electric shock.

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's manual to maximize the life of your unit.

Do:

- Turn off the product before cleaning.
- Touch screen surface may be cleaned using a soft clean cloth moistened with mild window glass commercial cleaners or 50/50 mixture of water and isopropyl alcohol.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Use only high quality and safety approved AC/DC adapter.
- Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

Don't:

- Do not touch the LCD display screen surface with sharp or hard objects.
- Do not use abrasive cleaners, waxes or solvents for your cleaning.
- Do not operate the product under the following conditions:
 - Extremely hot, cold or humid environment.
 - Areas susceptible to excessive dust and dirt.
 - Near any appliance generating a strong magnetic field.
 - In direct sunlight.

TX-22 is to be used as commercial and light industrial equipment only.

CHAPTER 1: INTRODUCTION

1.1 About TX-22

The TX-22 is a 21.5" flat panel screen with an active matrix, thin-film transistor (TFT) liquid crystal display (LCD).

Features include:

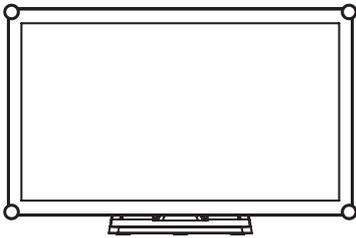
- Direct Analog signal input
- Direct Digital signal input
- Active matrix TFT LCD technology
- 1920 x 1080 resolution
- 21.5" viewable display area - 16:9 aspect ratio
- 31.47 ~ 82.3 KHz horizontal scan
- 56 ~ 75 Hz high refresh rate
- 0.24795mm x 0.24795mm pixel pitch
- Auto adjustment function
- Multilingual OSD user control
- 100 mm VESA mount
- Removable base for flexible mounting solutions
- Touch screen with USB controller

1.2 Touch Screen for TX-22

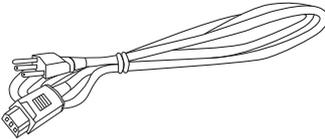
- Projected Capacitive touch screen for finger input only
- Surface: Glare treatment
- Interface: USB controller
- Transmittance: 90%±5%
- HID: Windows® 7
- Driver: VISTA, XP, 2000, CE, XP Embedded, Linux, Apple® Mac OS

PRODUCT DESCRIPTION

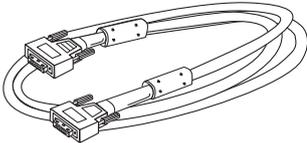
1.3 Package Overview



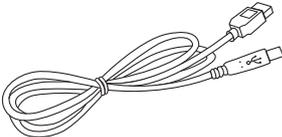
LCD Display



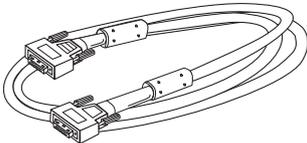
Power Cord



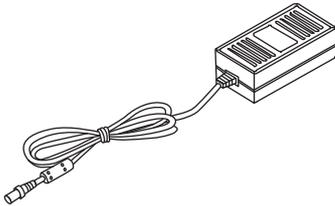
VGA Signal Cable



USB Cable (A to B)



DVI-D Cable



DC Power Supply



CD

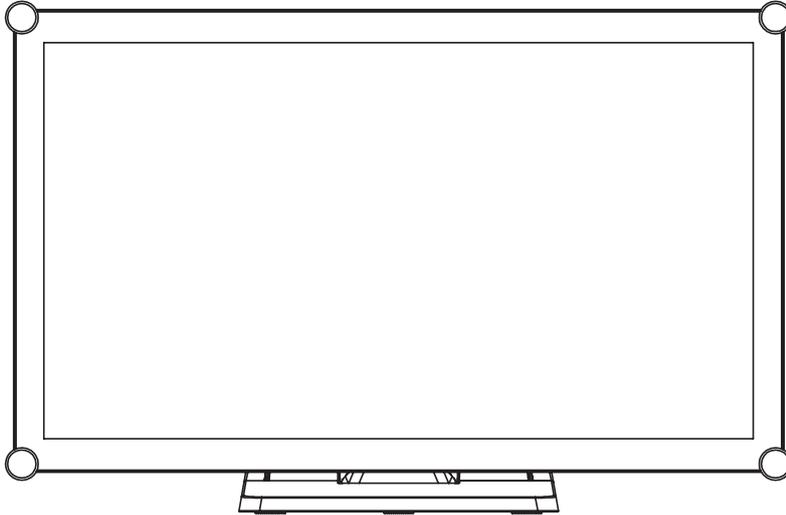


Cable Cover Screw

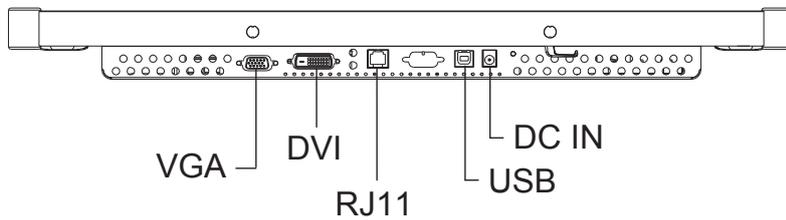
CHAPTER 2: INSTALLATION

2.1 Product Overview

2.1.1 Front View



2.1.2 Bottom View (Without Stand)

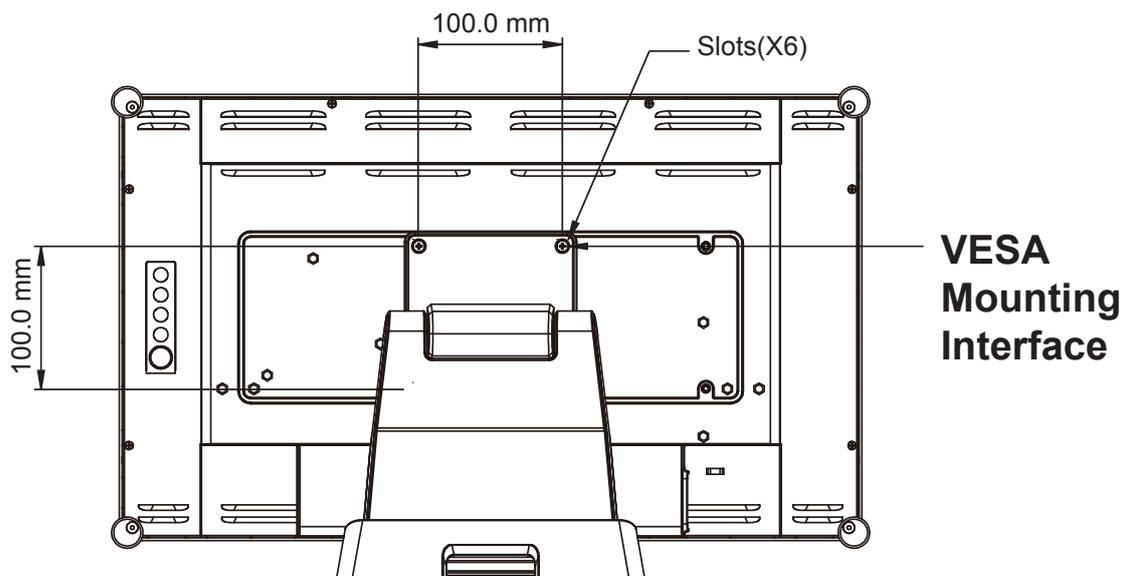


INSTALLATION

2.2 VESA Mount for Your Monitor

This monitor conforms to the VESA Flat Panel Mounting Physical Mounting Interface standard which defines a physical mounting interface for flat panel monitors, and corresponding with the standards of flat panel monitor mounting devices, such as wall and table arms. The VESA mounting interface is located on the back of your monitor.

To mount the monitor on a UL certified swing arm or other mounting fixture, follow the instructions included with the mounting fixture to be used.



⚠ Warning!

Please select the proper screws!

The distance between the back cover surface and the bottom of the screw hole is 8 mm. Please use four M4 screws diameter with proper length to mount your monitor.

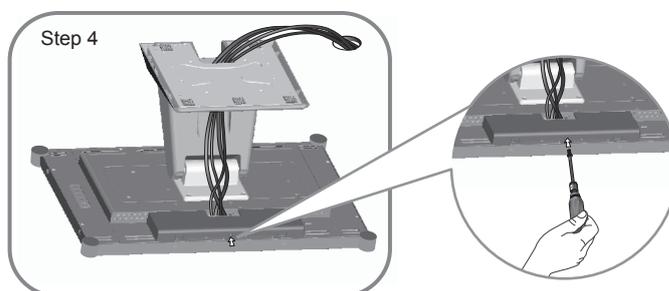
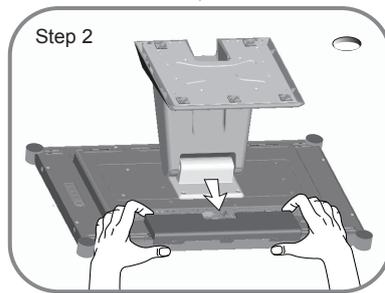
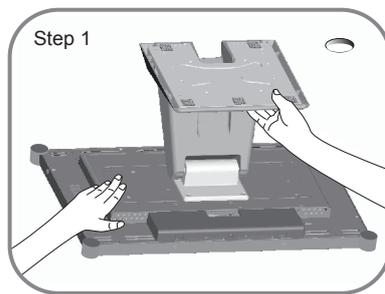
Please note: the mounting stand must be able to support at least 17.6 lbs (8Kg).

INSTALLATION

2.3 Start Your Installation

Please follow these instructions so that you can hook up the cables to associated connectors.

1. Lay the LCD flat on an even surface.
2. Move the stand into position as seen in the step 1 diagram.
3. Remove the cable cover as seen in the step 2 diagram.
4. Connect the cables to the appropriate connectors as seen in the step 3 diagram.
5. Re-attach the cable cover. Take the screw (CBM M3x6) out of the accessory box, and insert the screw into the cable cover and monitor as seen in the step 4 diagram.

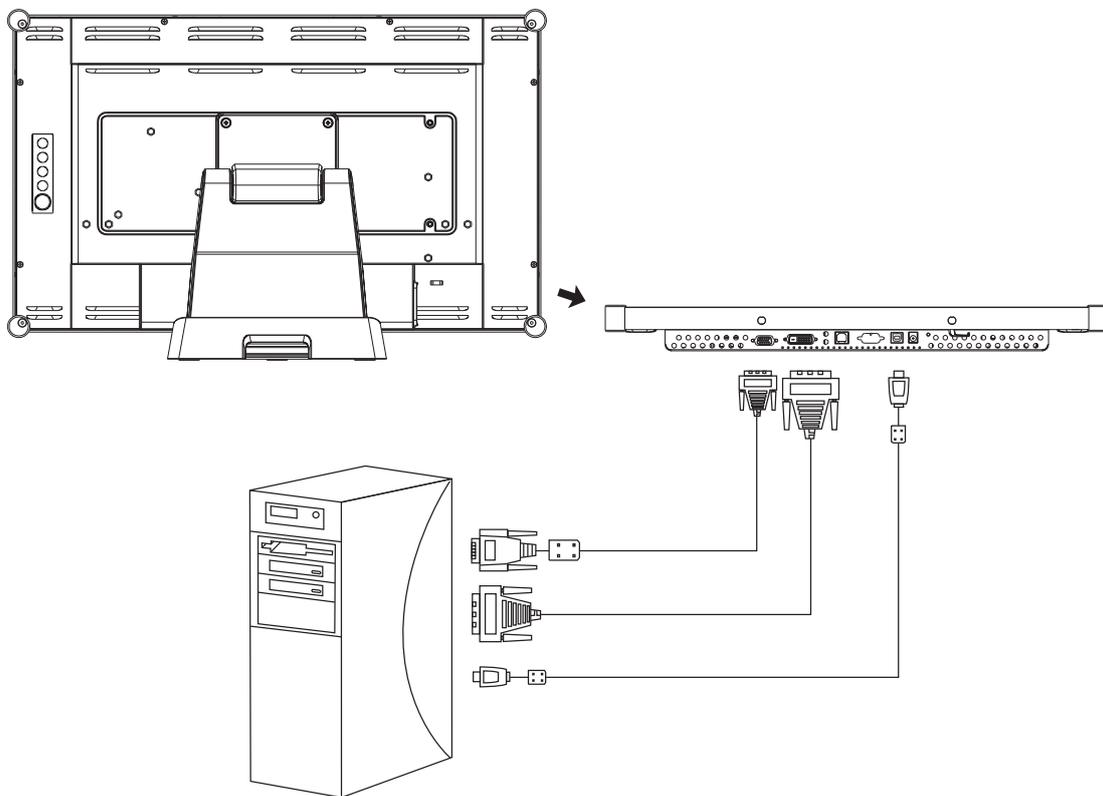


INSTALLATION

2.4 Connecting the Display

To setup this display, please refer to the following figure and procedures.

1. Be sure all equipment is turned off.
2. Connect the DC plug to the power connector on the monitor and the other end into an electrical outlet.
3. Connect the D-SUB or DVI cable from the display's D-SUB or DVI input connector to the D-SUB or DVI connector of your host computer and tighten the screws.
4. Connect the USB cable from the USB port of your display to the USB port of your computer.
5. Configure the touch screen. Refer to the "4.5 Touch Screen Driver Installation" section on page 19.
6. Once the touch screen is configured, the monitor is ready for use.



! Notice!

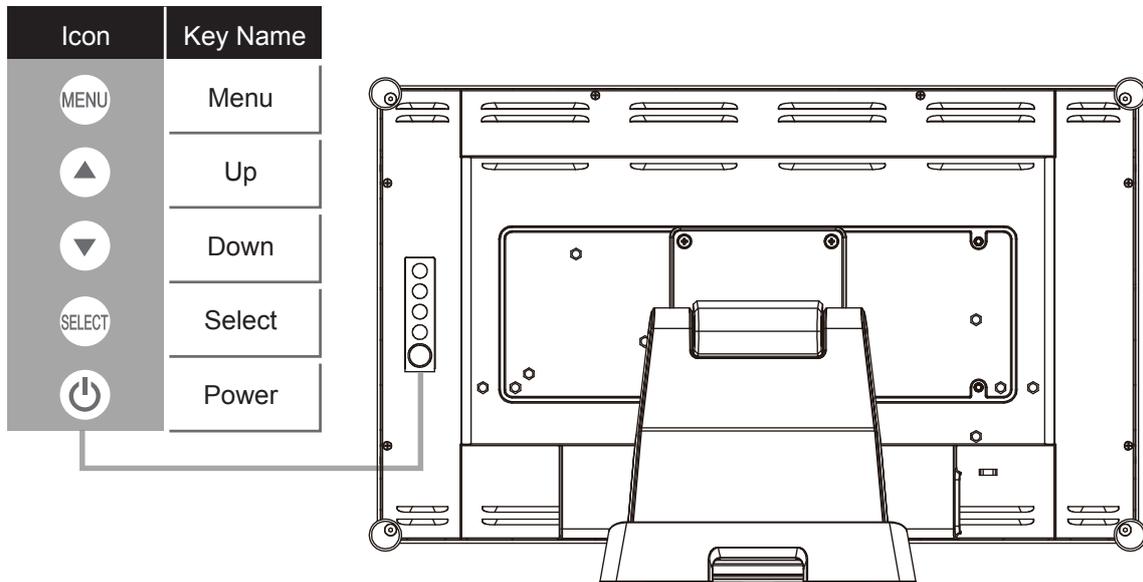
To ensure the LCD display works well with your computer, please configure the display mode of your graphics card to make it less than or equal to 1920 x 1080 resolution and make sure the timing of the display mode is compatible with the LCD display.

We have listed the compatible "Video Modes" of your LCD display in the appendix (on page 18) for your reference.

External power supplies applicable: Lite-On/PA-1051-0

CHAPTER 3: USER CONTROLS

3.1 Side Panel Controls



OSD Key	Menu off status	Menu on status
MENU	Menu appear	Menu disappear / return to main item
▲	Brightness	Main item select up / Adjust up
▼	Contrast	Main item select down / Adjust down
SELECT	Select sub-item function	
⏻	Power On / Off	

USER CONTROLS

3.2 How to Use the OSD Menu

Icon	Key Name
	Menu
	Up
	Down
	Select
	Power

1. Press the “Menu” button to pop up the “on-screen menu” and press “Up” or “Down” button to select among the five functions in the main menu.
2. Choose the adjustment items by pressing the “Select” button.
3. Adjust the value of the adjustment items by pressing the “Up” or “Down” button.
4. With the OSD menu on the screen, press the “Menu” button to return to the main menu or to exit OSD.
5. The OSD menu will automatically close, if you have left it idle for a pre-set time.
6. To Lock the OSD / Power menu buttons, please follow the instructions below.
(Please note: the monitor has to be turned ON with a valid signal pre-set)
 - (a.) Press the “Menu” key; the OSD menu will open.
 - (b.) Press and hold the “Menu” key again with the OSD menu on the screen; the OSD menu will disappear. Then press the “Power” key 1 time while the menu key is still being pressed. The “Lock/Unlock” menu will appear for 3 seconds.
 - (c.) Use the “Select” key to select OSD or Power setting then set at “Lock” by pushing the “UP” or “Down” button.
 - (d.) When the “UP” or “Down” button is released, the previous setting will be saved and exit the “Lock/Unlock” menu automatically.
7. To Unlock the OSD / Power menu buttons, please follow the instructions below.
(Please note: the monitor has to be turned ON with a valid signal pre-set)
 - (a.) Press and hold the “Menu” key then press the “Power” key simultaneously; the “Lock/Unlock” menu will appear for 3 seconds.
 - (b.) Use the “Select” key to select OSD or Power setting then set at “Unlock” by pushing the “UP” or “Down” button.
 - (c.) When the “Up” or “Down” button is released, the previous setting will be saved, and the “Lock/Unlock” menu will close automatically.

Please note:

- a. When the OSD Lock function is selected, this indicates that all the buttons except the “power” button are now disabled.
- b. When the Power Lock function is selected, the “Power” key is disabled. The user cannot turn off the monitor with the “Power” key.

USER CONTROLS

3.3 On-Screen Display Menus

Main OSD Menu:

ITEM	CONTENT
Contrast	The monitor luminance level control.
Brightness	The monitor backlight level control.
Auto Adjust	Fine-tune the image to full screen automatically.
Left/Right	Moving screen image horizontal position to left or right.
Up/Down	Moving screen image vertical position to up or down.
Horizontal size	The screen image horizontal dot clock adjustment.
Fine	The screen image pixel phase adjustment.
OSD Left/Right	Moving OSD menu horizontal position to left or right.
OSD Up/Down	Moving OSD menu vertical position to up or down.
OSD Time out	OSD auto-disappear time selection.
OSD Language	OSD menu language selection. (English, French, Japanese, Deutsch, Spanish, Italian, Traditional Chinese and Simplified Chinese)
Factory Reset	Factory default value restored.
RGB	Color temperature selection. (9300K, 6500K, 5500K, 7500K, User)

CHAPTER 4: APPENDIX

4.1 Troubleshooting

If you are experiencing trouble with the LCD display, refer to the following. If the problem persists, please contact your local dealer or our service center.

Problem: No image appears on screen.

- ▶ Check that all the I/O and power connectors are correctly and well connected as described in the “Installation” section.
- ▶ Make sure the pins of the connectors are not crooked or broken.

Problem: Partial Image or incorrectly displayed image.

- ▶ Check to see if the resolution of your computer is higher than that of the LCD display.
- ▶ Reconfigure the resolution of your computer to make it less than or equal to 1920 x 1080.

Problem: Image has vertical flickering line bars.

- ▶ Use “Horizontal size” to make an adjustment.
- ▶ Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display.

Problem: Image is unstable and flickering

- ▶ Use “Fine” to make an adjustment.

Problem: Image is scrolling

- ▶ Check and make sure the VGA signal cable (or adapter) is securely connected.
- ▶ Check and reconfigure the display mode of the vertical refresh rate of your graphics card to make it compatible with the LCD display.

Problem: Vague image (characters and graphics)

- ▶ Use “Horizontal size” to make an adjustment. If this problem still exists, use “Fine” to make an adjustment.

APPENDIX

4.2 Warning Signal

If you see warning messages on your LCD screen, this means that the LCD display cannot receive a clean signal from the computer graphics card.

Below are the three kinds of Warning Signal. Please check the cable connections or contact your local dealer or our service center for more information.

4.2.1 No Signal

This message means that the LCD display has been powered on but it cannot receive any signal from the computer graphics card. Check all the power switches, power cables, and VGA/DVI signal cable.

4.2.2 Going to Sleep

The LCD display is under the power saving mode. In addition, the LCD display will enter power saving mode when experiencing a sudden signal disconnecting problem.

The monitor can be activated by pressing any keyboard, triggering the mouse or touching the screen.

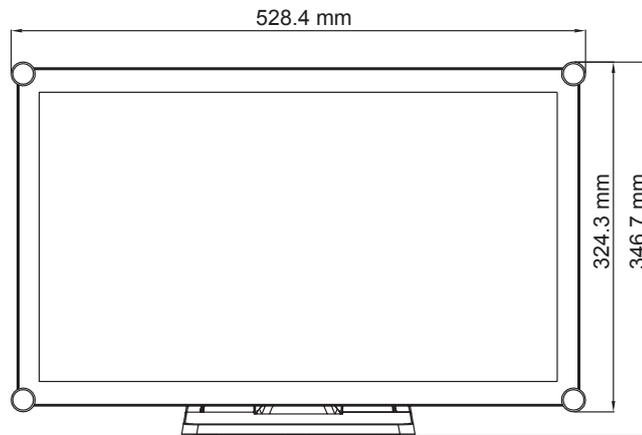
4.2.3 Out of Range

This message means that the signal of the computer graphic card is not compatible with the LCD display. When the signal is not included in the "Video Modes" list we have listed in the Appendices of this manual, the LCD monitor will display this message.

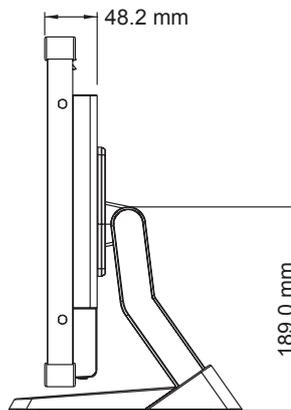
APPENDIX

4.3 Product Dimensions

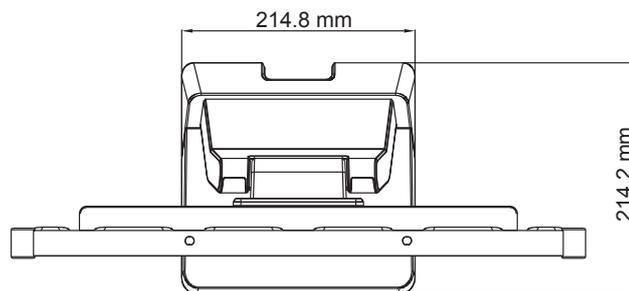
► Front View



► Side View



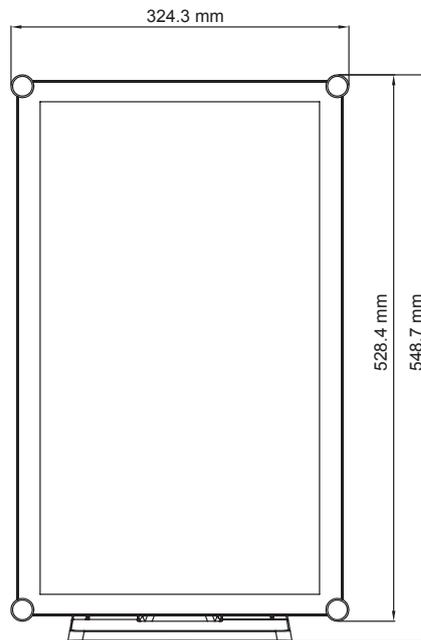
► Top View



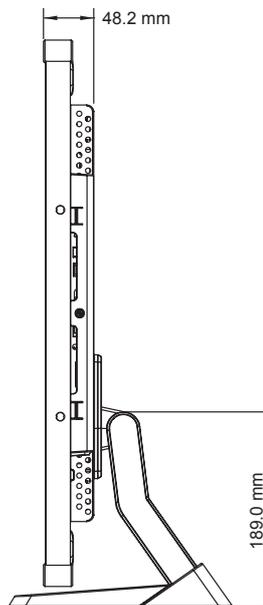
APPENDIX

Rotate

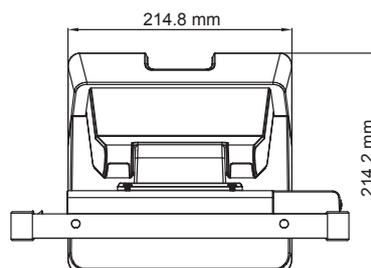
► Front View



► Side View



► Top View



APPENDIX

4.4 Compatibility Modes

Mode	Resolution	H-Frequency(khz)	V-Frequency(hz)
IBM VGA	720X400	31.47	70
IBM VGA	640X480	31.47	60
Apple MacII	640X480	35.00	66
VESA VGA	640X480	37.86	72
VESA VGA	640X480	37.50	75
VESA SVGA	800X600	35.16	56
VESA SVGA	800X600	37.88	60
VESA SVGA	800X600	48.08	72
VESA SVGA	800X600	46.88	75
Apple Mac	832X624	49.72	75
VESA XGA	1024X768	48.36	60
VESA XGA	1024X768	56.48	70
VESA XGA	1024X768	60.02	75
VESA SXGA	1280X1024	64.00	60
VESA SXGA	1280X1024	80.00	75
VESA SXGA	1152X864	67.50	75
VESA SXGA	1280X960	60.00	60
WXGA+	1440X900	56.00	60
WXGA+	1440X900	70.60	75
WSXGA+	1680X1050	65.20	60
WSXGA+	1680X1050 (VGA only)	82.30	75
VESA WXGA	1280X768	47.776	60
WSXGA+	1920X1080	67.50	60

APPENDIX

4.5 Touch Screen Driver Installation

The TX-22 is available with USB connections. The touch driver is located on the enclosed CD-ROM for these operating systems: VISTA, XP, 2000, CE, XP Embedded, Linux, Apple® Mac OS.

Please Note:

1. The TX-22 is Microsoft® Windows® HID (Human Interface Device) compatible if you use the USB touch screen interface. No additional software driver is required for general operation of the touch screen.
2. For TX-22, the system requires 15 seconds for Windows 7 to install/uninstall the touch drivers while turning power on/off or plugging/unplugging USB cable.

4.5.1 TX-22 Driver Install Instructions

If you are using a PC running VISTA, XP, 2000, follow the instructions below:

1. Power on the computer.
2. Be sure the USB cable is connected from the PC to the LCD display.
3. Open the CD-ROM.
4. Follow the step-by-step instructions as shown on the pop-up windows.

If you are using a PC running Windows® XP Embedded, follow the instructions below:

Express:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Be sure that your EWF is disabled. If your EWF is enabled, please disable the EWF by using the EWF Manager command.
4. Once the EWF is disabled click on the XP driver on the CD-ROM and follow the step-by-step instructions as shown on the pop-up windows.

Custom:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Follow the step-by-step instructions found in the folder file on the CD-ROM.

APPENDIX

If you are using a PC running Windows® CE, follow the instructions below:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Using Platform Builder, build an image file by following the step-by-step instructions found in the folder file on the CD-ROM.

If you are using a PC running Linux or Apple® Mac OS, follow the instructions below:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Follow the step-by-step instructions found in the folder file on the CD-ROM.

CHAPTER 5: SPECIFICATIONS

5.1 Display Specifications

TX-22		
Panel	Panel Size	21.5"
	Max. Resolution	1920 x 1080
Frequency (H/V)	H.Freq	31.47kHz – 82.3kHz
	V.Freq	56Hz – 75Hz
Input	VGA	15-Pin D-Sub
	DVI	24-Pin DVI-D
Touch Screen	Technology	Projected Capacitive
	Positioning Accuracy	±2.5mm
	Panel Interface	USB (Type-B, HID compliant)
Power	DC output	12V/4.16A
	Power	100 - 240V, 50 - 60Hz
	Consumption	< 27W (On) < 2W (Stand-by) < 1W (Off)
Operating Conditions	Temperature	0°C ~ 40°C (32°F ~ 104°F)
	Humidity	20% ~ 80% (No condensation)
Storage Conditions	Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
	Humidity	10% ~ 90% (No condensation)
Mounting	VESA FPMPMI	Yes (100mm x 100mm)
Weight	With base	6.9 kg (15.2 lbs)

Note: All specifications are subject to change without prior notice.