



LB1500R/LB1503R
Open-frame LCD Monitors

USER'S GUIDE

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European Union 2002/95/EC Directive on the Restriction of Hazardous Substances (RoHS)

In February 2003, the European Union issued Directive 2002/95/EC on the Restriction of Hazardous Substances, commonly known as RoHS, in certain electrical and electronic equipment. It restricts the use of six hazardous substances, including lead (Pb).

The Directive states that all new products within its scope, placed on the European market after July 1, 2006 must be compliant with its requirements.

Planar Systems Inc. is fully in support of and compliant with EU Directive 2002/95/EC for applicable products within its scope.

A Planar part number will be modified with an "LF" suffix designation to indicate RoHS compliance, as shown on the part number label affixed to the display and on the box containing the display.

Important Recycle Instruction:



LCD Lamp(s) inside this product contain mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG.

Revision Control

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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.*
- *LCD front 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 only high quality safety approved AC/DC power adapter that comes with your monitor.*
- *Disconnect the power plug from the 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 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.*

Introduction

About Planar's LB1500R/LB1503R

The LB1500R/LB1503R is a 15" flat panel screen with an active matrix, thin-film transistor (TFT) liquid crystal display (LCD).

Features include:

- Direct analog signal input
- Direct digital DVI signal input (LB1503R)
- Direct composite video signal input (LB1503R)
- Active matrix TFT LCD technology
- 1024x768 XGA resolution
- 15" viewable display area
- 31.5 ~ 60 kHz horizontal scan
- 56 ~ 75 Hz refresh rate
- Auto -adjustment function
- Multilingual OSD user controls
- VESA DPMS power saving
- 75 mm VESA rear mount attachment

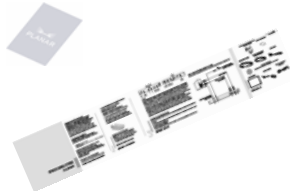
Package Overview



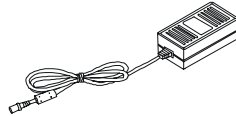
LB1500R Monitor



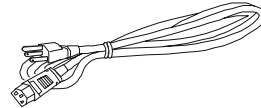
LB1503R Monitor



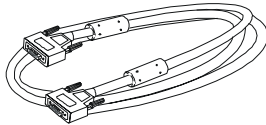
Quick Start Guide



Power Adapter



Power Cord



VGA Signal Cable



DVI-D Cable
For LB1503R



Video BNC Cable
For LB1503R

Installation

Product Overview

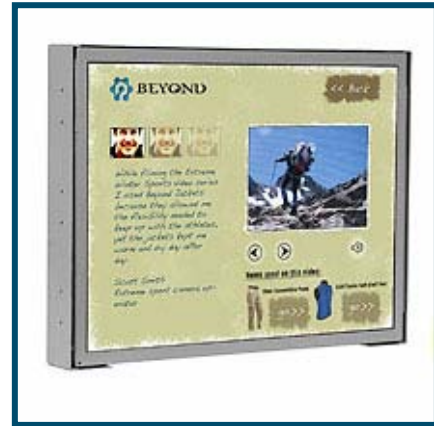
Front View

LB1500



Front View

LB1503R



Signal Input Layout

Figure 1. LB1503R Connector Inputs

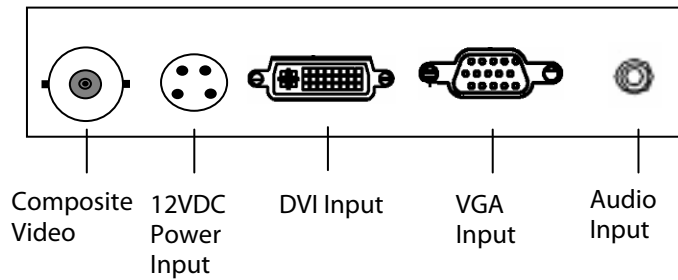
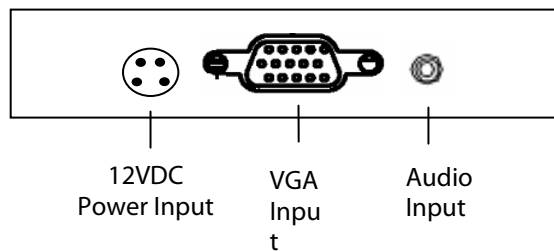


Figure 2. LB1500R Connector Inputs



Start Your Installation

Connecting the Display (Figure 3)

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

1. Be sure all equipment is turned off.
2. Connect the DC power cord to the power connector; plug one end of the AC power cord into the power adapter, and the other end into an electrical outlet (❶).
3. Connect the VGA signal cable from display VGA input connector to the 15-pin connector of your host computer and tighten the screws (❷).
4. For LB1503R connect the DVI signal cable from display DVI input connector to DVI connector of your host computer and tighten the screws (❸).
5. For LB1503R connect the composite video cable from display video input to video output source (❹).
6. Turn on your computer, display and or video source.

Figure 3. The LB1500R Connections

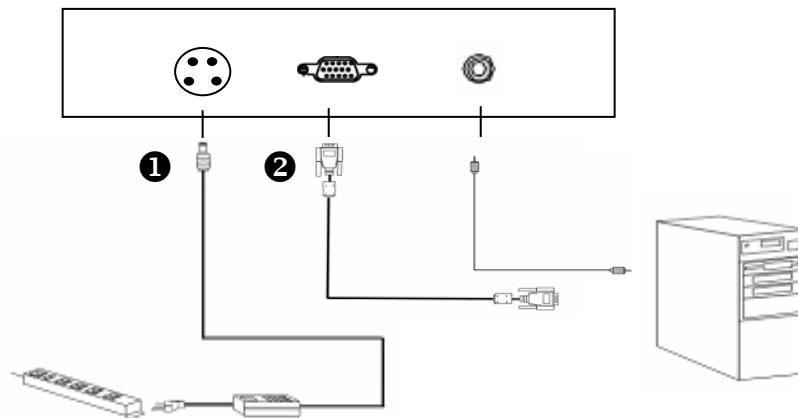
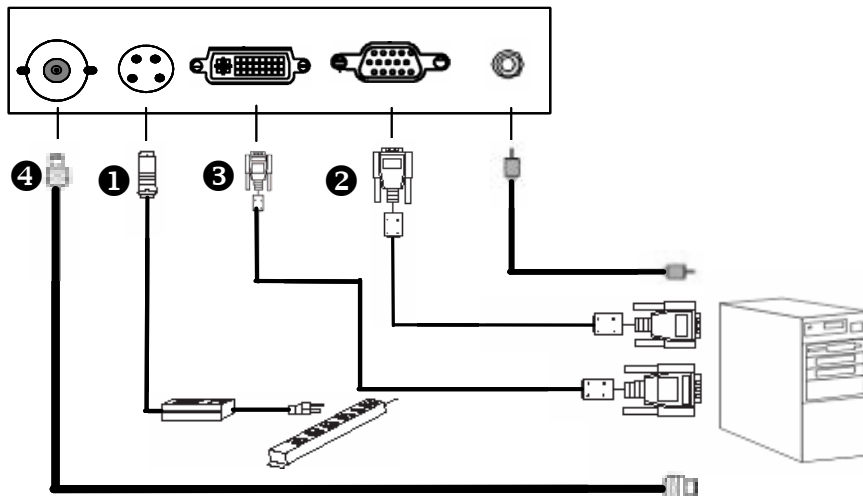


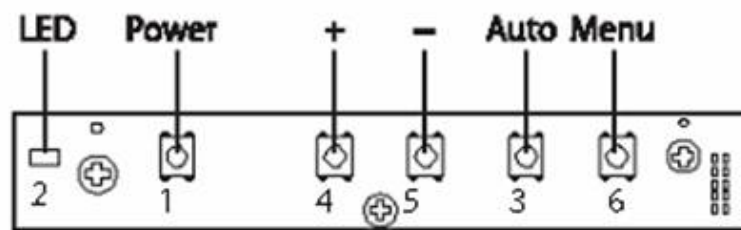
Figure 3. The LB1503R Connections



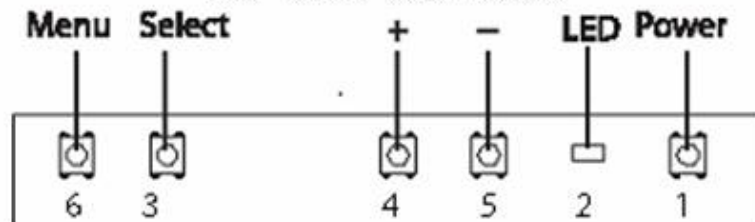
Notice: To ensure the LCD display will work well with your computer, please configure the display mode of your graphics card to make it less than or equal to 1024 x 768 resolution and make sure the timing of the display mode is compatible with the LCD screen. We have listed the "Compatibility Modes" of this LCD screen in appendices for your reference.

User Controls


Rear Panel Controls



LB 1500 Controls



LB 1503 Controls

No / Icon	Control	Function
① 	Power Switch	Turns on/ off the power of the LCD display.
②	Power LED	Green indicates the display is turned on. Amber indicates the display is in power-saving mode.
③ S	Select/Auto	Select - To select the adjustment items from OSD menus. Auto - To activate the "Auto Adjustment" function to obtain an optimum image.
④	Plus/Brightness	1. Increases the brightness of the display image. 2. Increases value of the adjustment functions.
⑤	Minus/Mute On/Off	1. Decreases value of the adjustment functions. 2. Makes the volume function ineffective/effective.
⑥ M	Menu Button	Display the OSD menus.

How to Use the OSD Menus

1. Press the "MENU" button to pop up the "on-screen menu" and to select among the four main menus.
2. Choose the adjustment items by pressing the "Select/Auto" button.
3. Adjust the value of the adjustment items by pressing the "+" or "-" button.
4. The OSD menu will automatically close if you have left it idle for a pre-set amount of time.
5. To disable the OSD menu buttons, please follow the instructions below. **Please note:** the monitor has to be ON with a valid signal present.
 - a. Press and hold the "-" key.
 - b. With the "-" key held down, press and hold the "Menu" key for 3 seconds.
 - c. The wording "OSD Locked" will appear for 3 seconds on the monitor. This indicates that all the front buttons, with the exception of the power button, are now disabled.
6. To enable the OSD menu buttons, please follow the instructions below. **Please note:** the monitor has to be ON with a valid signal present.
 - a. Press and hold the "-" key.
 - b. With the "-" key held down, press and hold the "Menu" key for 3 seconds.
 - c. The wording "OSD Unlocked" will appear for 3 seconds on the monitor. This indicates that all the front buttons are now enabled.

On-Screen Display Menus

LB1500R

Description	Function	Selections	Value Range	Default
Brightness			0-100	32
Contrast			0-100	56
LCD Adjustment	Clock		0-100	N/A
	Phase		0-63	N/A
	H.Position		0-100	N/A
	V.Position		0-100	N/A
Color Temperature	SRGB			
	9300K			
	7200K			7200K
	6500K			
	5000K			
	User	R/G/B	0-100	
Eco Mode	On			
	Off			Off
Language	Japanese			
	English			English
	French			
	Deutsch			
	Spanish			
	Italian			
	Chinese			
	Other Setup	Smooth		0-3
	OSD H.Position		0-100	50
	OSDV.Position		0-100	50
	OSD Transparency	On/Off		Off
	OSD Timeout		5-60	30
	Volume		0-100	N/A
	Mode Message	On/Off		Off
	Reset			
Audio	Mute	On/Off	0-50	N/A

LB1503R

Description		Function/Selections	Value Range	Default Setting	
Main Menu	DISPLAY	Brightness		0- 100	60
		Contrast		0- 100	50
		Hue		0- 90	0
		Saturation		0- 100	50
		Flesh-tone	Off/Weak/Soft/Strong		Off
		Black-Level		0- 100	N/A
	IMAGE	Scaling	1:1/Fill/Aspect		Full
		Auto Adjust	Select		
		Phase		0-255	N/A
		Clock		0-255	N/A
	POSITION	Zoom	In / Out		In
		Zoom Horizontal Pan	Left / Right		
		Zoom Vertical Pan	Up / Down		
		Vertical		0-255	N/A
		Horizontal		0-255	N/A
	Color	sRGB	Off / On		Off
		Gamma Correction	Off / 1.8 / 2.2		Off
		Color Temperature	User		
			6500k		6500K
			9300k		
PIP CONTROL	PIP Mode	Off / PIP / Pap		Off	
	PIP size	Small / Med. / Large		Small	
	Vertical		0- 100	20	
	Horizontal		0- 100	85	
Input Select		VGA			
		DVI			
		Composite			
OSD Position		Vertical		0-255	0
		Horizontal		0-255	0
		Blend		0-10	0
		Time Out		5-60	30
Language		English		English	
		Chinese			
		Japanese			
Reset		Factory Reset			
Audio		Volume		0-50	
		Mute	On / Off		On

Appendix

Troubleshooting

If you are experiencing trouble with the LCD display, refer to the following. If the problem persists, please contact Planar.

Problem: No image appears on screen.

- Check that all the I/O and power connectors are correctly installed and well connected as described in the "Installation" section.
- Make sure the pins of the connectors are not crooked or broken.
- Reconfigure the resolution of your computer to make it less than or equal to 1024 x 768.

Problem: Partial Image or incorrectly displayed the 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 1024 x 768.

Problem: Image has vertical flickering line bars.

- Use "Clock" 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 "Phase" to make an adjustment.

Problem: Image is scrolling

- Check and make sure the VGA signal cable (or adapter) is well 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: Ghosting image (character and graphic images)
- Use "Clock" to make an adjustment. If this problem still exists, use "Phase" to make an adjustment.

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.

There are three kinds of sources for this problem. Please check the cable connections or contact Planar for more information.

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, VGA, DVI or Video signal cables.

Going to Sleep

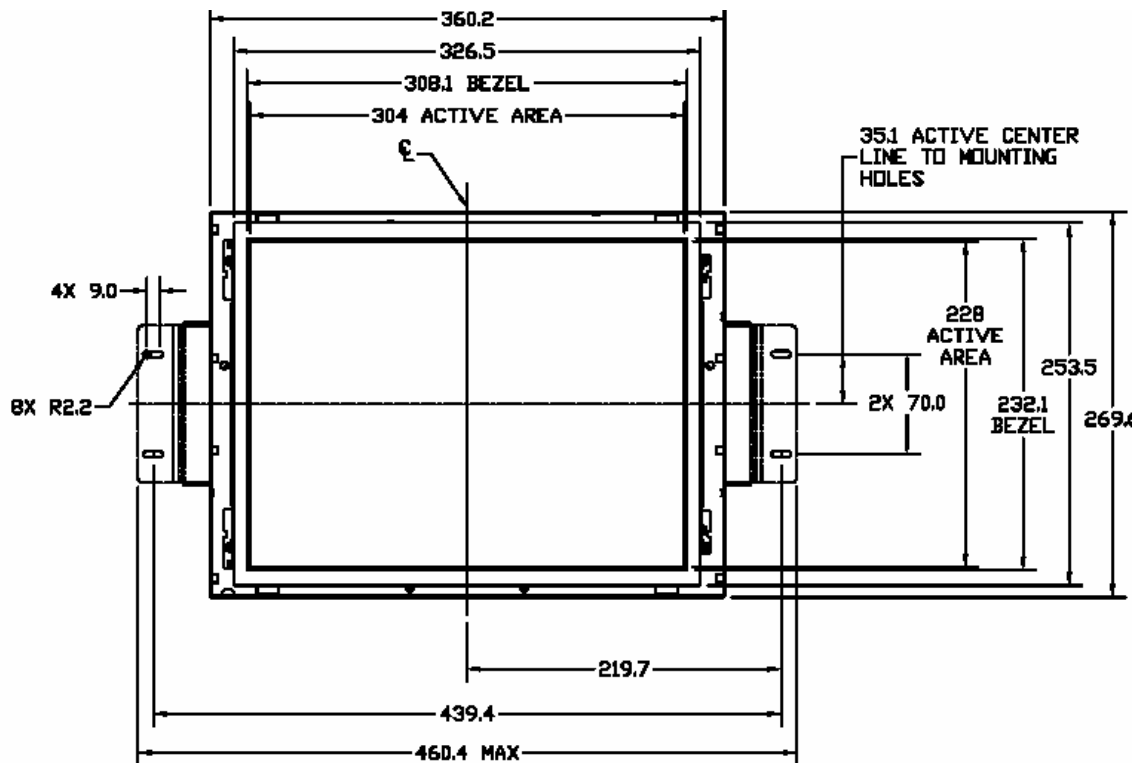
This message means that the LCD display is under the power saving mode. In addition, the LCD display will enter the sleeping mode when experiencing a sudden signal disconnecting problem.

Unsupported Mode

This message means that the signal of the computer graphics card or video source is not compatible with the LCD display. The LCD display will show this message when the signal is not included in the Signal Compatibility mode tables listed in the Appendix of this manual.

Product Dimensions (All dimensions are in millimeters)

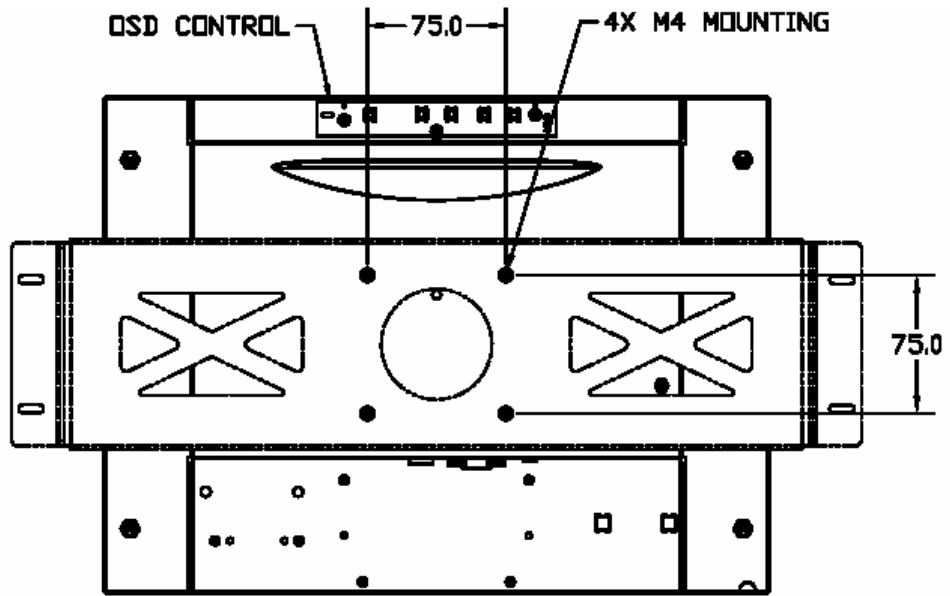
LB1500R



Front View

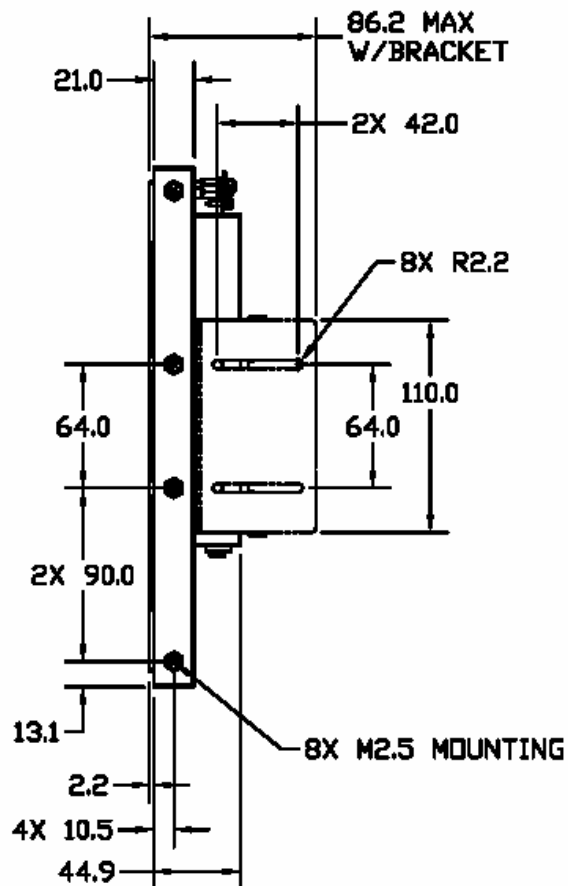
LB1500R

Back View



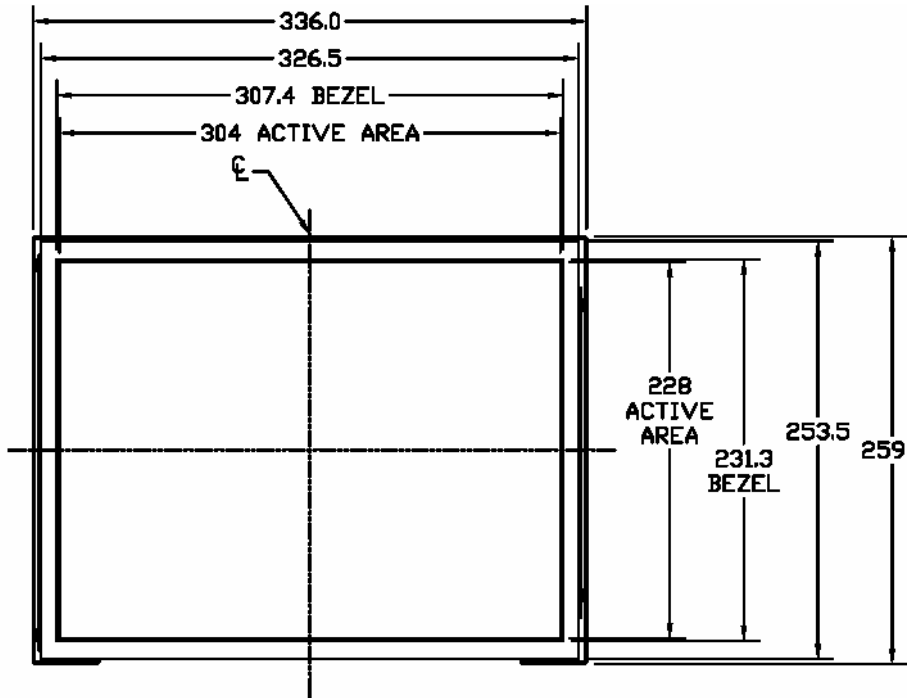
LB1500R

Side View



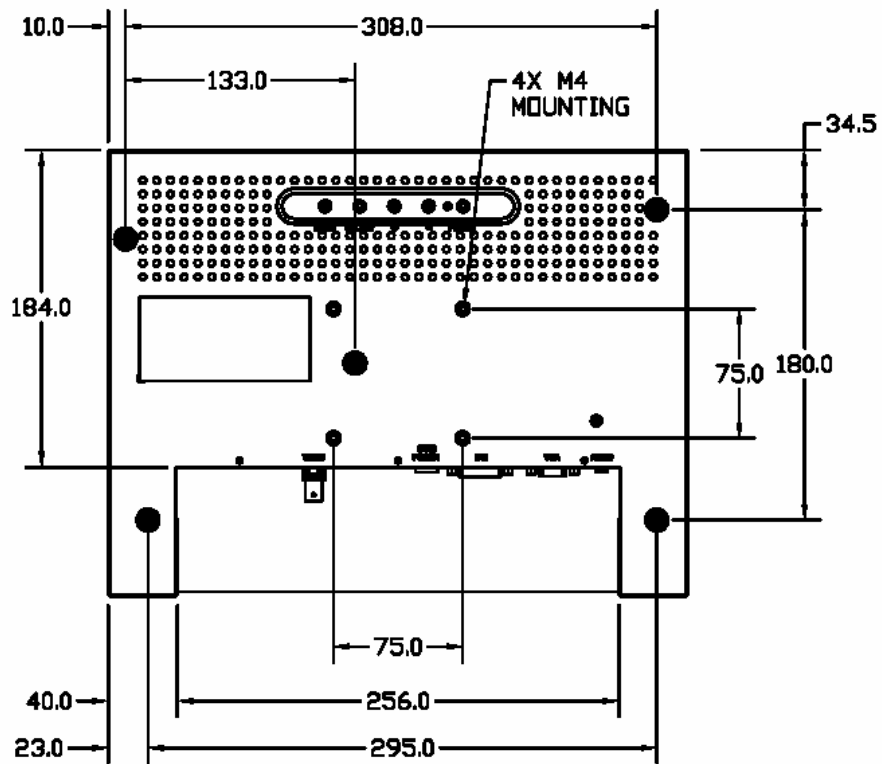
LB1503R

Front View



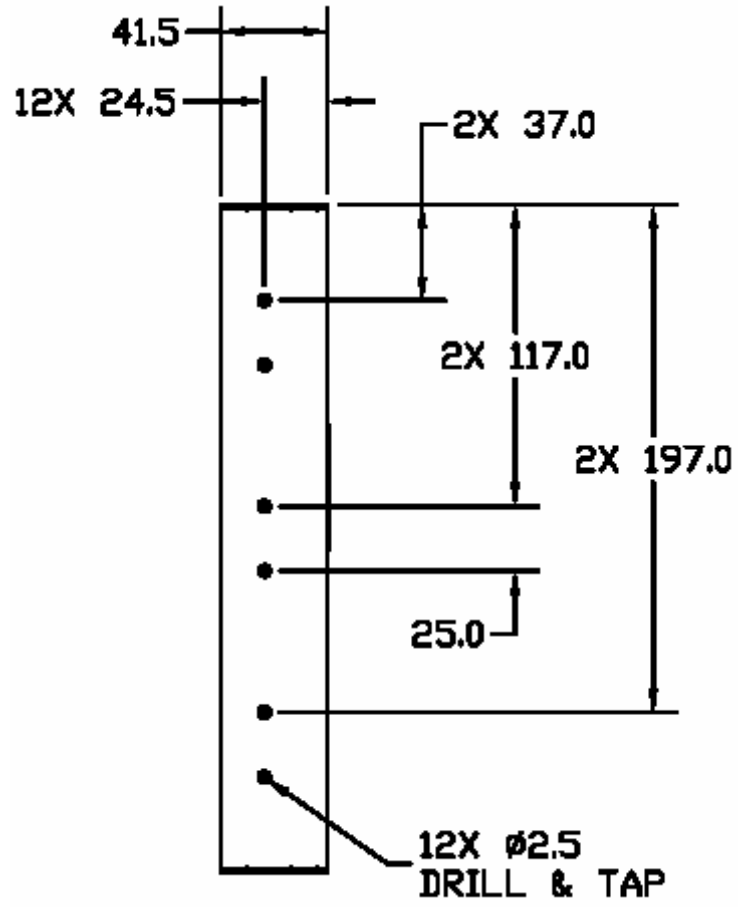
LB1503R

Back View



LB1503R

Side View



Signal Compatibility Modes

LB1500R and LB1503R Graphics Analog Signal Support

Table 1

Item	Comment	Resolution	Vertical Refresh Rates
1	IBM & VESA VGA	640 x 350	70 Hz
2	IBM VESA VGA	640 x 400	70 Hz
3	IBM VESA VGA	720 x 400	70 Hz
4	IBM VESA VGA	640 x 480	60 Hz, 72 Hz, 75 Hz
5	VESA SVGA	800 x 600	56 / 60 / 72 / 75 Hz
6	VESA XGA	1024 x 768	60 / 70 / 75 Hz
8	Apple Mac LC	640 x 480	67 Hz
9	Apple Mac II	640 x 480	67 Hz
10	Apple Mac	832 x 642	75 Hz
11	Apple Mac	1024 x 768	75 Hz

LB1503R Graphics Digital Signal Support

Table 2

Item	Comment	Resolution	Vertical Refresh Rates
1	IBM & VESA VGA	640 x 350	70 Hz
2	IBM VESA VGA	640 x 400	70 Hz
3	IBM VESA VGA	720 x 400	70 Hz
4	IBM VESA VGA	640 x 480	60 Hz, 72 Hz, 75 Hz
5	VESA SVGA	800 x 600	56 / 60 / 72 / 75 Hz
6	VESA XGA	1024 x 768	60 Hz
8	Apple Mac LC	640 x 480	67 Hz
9	Apple Mac II	640 x 480	67 Hz
10	Apple Mac	832 x 642	75 Hz
11	Apple Mac	1024 x 768	75 Hz

Analog Video Signal Support

Table 3

Item	Comment	Resolution	Vertical Refresh Rates
1	NTSC	525 Lines	60 Hz
2	PAL	600 Lines	50 / 60 Hz

Planar Systems, Inc.

Customer Service

24x7 Online Technical Support: <http://www.planar.com/support>

Americas Support

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