

**15 Inch CGA EGA VGA  
to XGA LCD Wide Viewing Angle  
Panel ID#650**



**Operation Manual**

## Introduction

This monitor is an open frame LCD Panel monitor. It features the VESA plug & play system which allows the monitor to automatically adjust itself to match the frequency of the user's device. It now has wide viewing angle capability. This allows for better image display when viewing screen from the sides or top or bottom

## Features

- Wide viewing angle
- High brightness.
- Fast response time.
- Power saver.
- Low electromagnetic wave and power saver.
- Safety certifications.

## Power Saver

- The power control system is installed inside the LCD monitor.
- If the monitor has not been used for a certain period of time, the system will turn the monitor to low voltage mode to save power. Any button press will return the monitor to original state.
- Your input device e.g. your computer controls the power saver mode. You can adjust these settings via your computer
- The LCD monitor is compatible with EPA Energy Star and N Tek if used with a VESA DPMS computer.
- To save power, turn off the power of the LCD monitor when it is not in use.

## Plug and Play

- The VESA plug and play function eliminates the complicated and time-consuming installation process.
- As this is a plug and play monitor. Your computer system can easily identify and automatically adjust the monitor.
- The LCD monitor uses Display Data Channel (DDC) to send Extended Display Identification Data (EDID) to the computer system, so the computer system can be set to monitor auto adjust.

## Setting up your LCD monitor

### Screen Adjustment

To enter adjust mode, please refer to the OSD control.

- Turn the computer and LCD monitor on.
- Press “Auto” button to start auto adjust.
- This will start the auto adjust process. This will take approximately 10 seconds. You may notice the image changing and occasionally flashing (this is normal).
- Your LCD monitor provides a self testing function, through which you can check whether the LCD monitor functions are working properly.
- If your LCD monitor is properly connected, but there is no image showing and the indicator lights up in orange, please follow the below steps:
  - Shutdown the computer and the LCD monitor.
  - Unplug the signal connector from the back of the computer.
  - Turn the LCD monitor on.
  - If the image connector is disconnected or damaged, a “No signal” sign will pop up on the monitor.



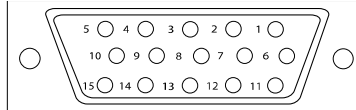
- Turn off the LCD monitor and reconnect the signal cable, and then turn the computer and LCD monitor on.
- If the LED of the LCD monitor is an orange colour after completing the steps above, please check your VGA card and computer system. Your monitor should be operating properly.

## OSD Control



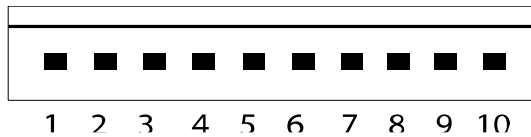
1.	<b>Power Switch</b>	Power On/Off.
2.	<b>LED</b>	Power Indicator
		Green = normal
		Red = power saving
		Off = power off.
3.	<b>Menu</b>	Automatically optimize positions, phase and clock when OSD is not shown.
4.	<b>Up</b>	This control is used for selection or adjustment when OSD is show.
5.	<b>Down</b>	This control is used for adjustment when OSD is shown.
6.	<b>Auto/Esc</b>	Enter OSD access sub-menu and selection.

## VGA Signal Connector



<b>Pin 1</b>	Analog red input.
<b>Pin 2</b>	Analog green input.
<b>Pin 3</b>	Analog blue input.
<b>Pin 4</b>	Ground.
<b>Pin 5</b>	Digital ground.
<b>Pin 6</b>	Analog red ground.
<b>Pin 7</b>	Analog green ground.
<b>Pin 8</b>	Analog blue ground.
<b>Pin 9</b>	Ground.
<b>Pin 10</b>	Sync ground.
<b>Pin 11</b>	Ground.
<b>Pin 12</b>	SDA (DDC Data).
<b>Pin 13</b>	H. Sync or H + V Sync.
<b>Pin 14</b>	V. sync.
<b>Pin 15</b>	SCL (DDC CLK).

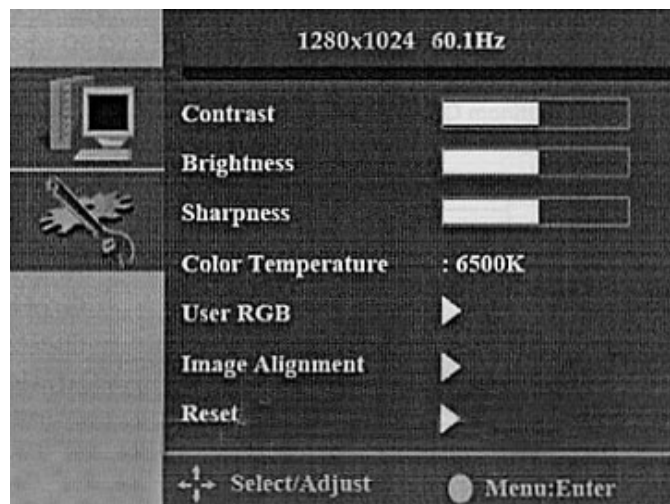
## CGA / EGA Signal Connector



<b>Pin 1</b>	CGA analog red input.
<b>Pin 2</b>	CGA analog green input.
<b>Pin 3</b>	CGA analog blue input.
<b>Pin 4</b>	Ground.
<b>Pin 5</b>	V. Sync
<b>Pin 6</b>	H + V Sync or H. Sync
<b>Pin 7</b>	No Connection
<b>Pin 8</b>	Ground
<b>Pin 9</b>	V Sync
<b>Pin 10</b>	H + V Sync or H. Sync

## Adjusting the Image

- Press the menu button to start the OSD feature.
- Click the “Up” or “Down” button to select the function to be adjusted.
- Click the “Menu” button to access into the function to be adjusted.
- Click the “Up” or “Down” button to change the current setting of the function selected.
- To exit the OSD menu or go back to a previous menu click the “Auto/Esc” button. Upon exiting the menu your changes will automatically saved.
- If after pressing the menu button, the OSD button will disappear, if no additional buttons are pressed for several seconds. If this occurs, any adjustments made, will still be automatically saved.
- Due to the automatic save feature, turning off the power is unwise while navigating the menu.



**Please Note:** Due to the advanced nature of this panel. Adjustments to clock, phase and image positioning are saved only for the signal timing you are currently using. Meaning if your input is CGA 640 x 215 @60Hz, and you adjust the clock setting. This will only affect this timing.

So when your change input to VGA 640 x 480 @60Hz for example the clock will be at its default (or last memory saved setting). This is to allow the user to get a picture perfect for every input he requires and avoid redoing settings each time the input is changed.

Except for these adjustments, clock, phase and image positioning, all other adjustments are universal for example changing the brightness setting will change the brightness setting for all inputs and timings.

To help the User remember; all settings that only affect the timing you're currently using are coloured pink and the universal settings are coloured white.

## Menu Options

<b>Main Menu</b>		
<b>IMAGE SETTINGS</b>	<b>Contrast</b>	Adjust the contrast of the image.
	<b>Brightness</b>	Adjust the brightness of the screen.
	<b>Gamma</b>	Adjust the gamma level of the image.
<b>Colour Temperature</b>	<b>9300K</b>	Set up the colour temp. to be 9300 K white colour.
	<b>6500K</b>	Set up the colour temp. to be 6500 K white colour.
	<b>5800K</b>	Set up the colour temp. to be 5800 K white colour.
	<b>User RGB</b>	Adjust the Red, Green, Blue colour values separately
<b>FEATURE CONTROLS</b>	<b>Auto Colour</b>	Automatically adjusts the colour for you
	<b>Screen Test</b>	Performs a series of colour tests to show that the screen is working correctly.
	<b>Language</b>	Select a language for the menu to appear in (English, French, German [Deutsch], Italian, Spanish and Chinese and Japanese)
	<b>Input Source</b>	Provides information on your current input such as resolution and refresh rate.
	<b>OSD Timer</b>	Increase or decrease the length of time the "on screen display" menu will stay visible with any button pressing

## Advanced Options

If you select the Image Alignment Option, you will get a second menu which deserves further explanation

<b>Automatic Options</b>		
	<b>Auto align</b>	The panel will automatically choose the best position and size for your input
<b>Manual Options</b>		
	<b>Position</b>	position the image including up, down, left or right
	<b>H-size</b>	(crushes the image horizontal, to fit on the size)
	<b>V-size</b>	(crushes the image Vertical, to fit on the size)

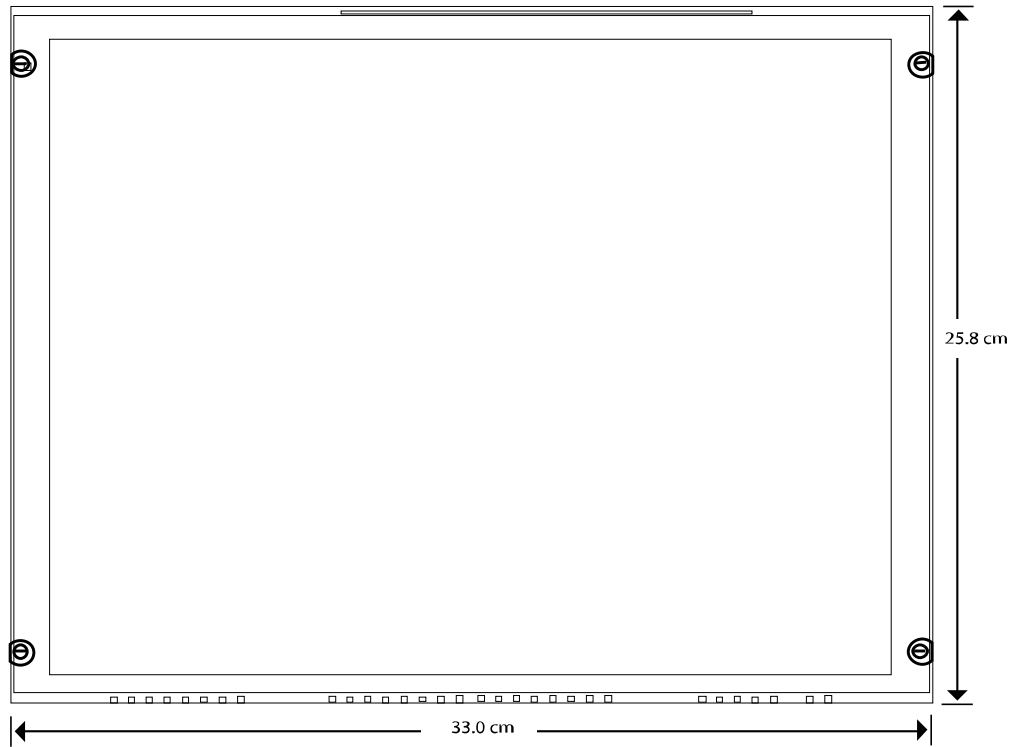
*Warning: Phase and Clock Settings shouldn't be touched unless you know what you're doing. Altering these values can make the image unwatchable on the screen*

## Support CGA/EGA/VGA Timings

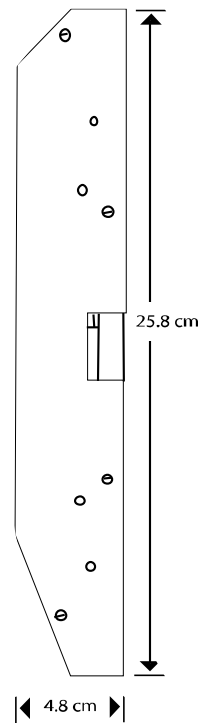
Type	H. Frequency. (kHz)	V. Frequency (Hz)	Resolution
CGA	15.4	58.8	640x198 @ 58
CGA	15.1	57.6	640x215 @ 57
CGA	15.7	60	640x215 @ 60
CGA	16.0	61	640x215 @ 61
CGA	16.3	62	640x215 @ 62
CGA	16.6	63.4	640x215 @ 63.4
CGA	16.800	64	640x215 @ 64
CGA	15.6	50.3	640x265 @ 50
CGA	18.4	50	640x350 @ 50
EGA	21.8	58.9	640x350 @ 58
EGA	24.4	59.5	645x355 @ 59
EGA	23.5	52	720x378 @ 52
EGA	26.4	57.4	720x400 @ 57
VGA	31.469	70.087	640x400 @ 70
VGA	31.469	59.940	640x480 @ 60
VGA	37.861	72.809	640x480 @ 72
VGA	37.500	75.000	640x480 @ 75
SVGA	35.156	56.250	800x600 @ 56
SVGA	37.879	60.317	800x600 @ 60
SVGA	48.077	72.188	800x600 @ 72
SVGA	46.875	75.000	800x600 @ 75

XGA	48.363	60.004	1024x768 @ 60
XGA	56.476	70.069	1024x768 @ 70
XGA	60.023	75.029	1024x768 @ 75

**Front View**



**Side View**





## Specifications

<b>Specifications for this Model</b>	
<b>Screen Size</b>	15" TFT
<b>Pixel Pitch(mm)</b>	0.297 x 0.297
<b>Backlight</b>	CCFL x 2
<b>Cell Type</b>	TN
<b>Input Mode</b>	CGA/EGA/VGA/XGA
<b>Scan Frequency Horizontal</b>	15 ~ 60KHZ
<b>Scan Frequency Vertical</b>	48 ~ 75Hz
<b>Colours</b>	16.2M Colors
<b>Aspect Ratio</b>	4:3
<b>Horizontal Viewing Angle</b>	140 Degrees
<b>Vertical Viewing Angle</b>	120 Degrees
<b>Max Resolution</b>	1024 x 768
<b>Bandwidth</b>	90MHz Dot Clock
<b>Contrast Ratio</b>	500:1 Typ
<b>Brightness</b>	250cd/m squared
<b>Power</b>	100 ~ 240V 47/63Hz via 12VDC 4A adapter
<b>Power Consumption</b>	40W Max
<b>Management</b>	Vesa-Dpms 40 watts Power down mode </=3 Watts
<b>Function Keys</b>	5
<b>PC Interface</b>	Analog Interface
<b>Signal Cable</b>	Standard VGA cable w/15-pin D-sub connector.
<b>Operating Temperature</b>	0 degrees ~ 40 Degrees
<b>Humidity</b>	10 ~ 85%