



# Hardware User Guide

## VAMP-WN

### Second Edition

**Computer  
DYNAMICS**

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## FCC Statement

This device complies with part 15 FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "a" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

## Warnings, Cautions, and Notes as Used in this Publication



Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.



Caution notices are used where equipment might be damaged if care is not taken.



Notes merely call attention to information that is especially significant to understanding and operating the equipment.

## Important Safety Precautions

### Warning



Always completely disconnect the power cord from your unit prior to working with the hardware. Do not make connection while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the unit.

### Caution



Always ground yourself to remove any static charge before touching any internal components. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the unit.

## Safety and Warranty



- Please read these safety instructions carefully.
- Please keep this user's manual for later reference.
- Please disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning, use a damp cloth.
- For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
- Keep this equipment away from humidity.
- Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
- The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
- Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- All cautions and warnings on the equipment should be noted.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
- Never pour any liquid into an opening. This could cause fire or electrical shock.
- We do not recommend using any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. The manufacturer will not be liable for damage resulting from the use of any ammonia or alcohol-based cleaner.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- If any of the following situations arises, get the equipment checked by service personnel:
  - The power cord or plug is damaged.
  - Liquid has penetrated into the equipment.
  - The equipment has been exposed to moisture.
  - The equipment does not work well, or you cannot get it to work according to the user's manual.
- The equipment has been dropped and damaged.
- The equipment has obvious signs of breakage.
- Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20° C (-4° F) or above 60° C (140° F), as this may damage the equipment.

## Unpacking

After unpacking the VAMP-WN, check to ensure the following items are included and in good condition. Do not attempt to apply power to the system if there is damage to any of its components.

- |                          |                                     |
|--------------------------|-------------------------------------|
| • 1x VAMP-WN main system | • 1x DVI cable (optional)           |
| • 1x VGA cable           | • 1x Audio cable (optional)         |
| • 1x AC to DC adapter    | • 1x Serial or USB cable (optional) |
| • 1x Power cable         | • Mounting screws (optional)        |

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# 1. Installing the Monitor

Procedures for setting up your VAMP-WN monitor are as follows:

## 1.1. Power & Signal Connections

### 1.1.1. Power

Switch off the power on both your monitor and your computer. The Power Switch is located in the center of the monitor.

### 1.1.2. Power Cable Connection

Connect the power cord to the AC outlet, and connect the power to the monitor through the AC/DC adapter.

### 1.1.3. VGA Signal Cable Connection

Plug one end of the 15-pin signal cable to the video signal connector at the rear of the PC system and the other end to the monitor. Secure the connectors with the screws on the cable connector at both ends.

## 1.2. Optional Connections

### 1.2.1. Compatible Cable Connection

The LCD monitor is designed to work with a variety of compatible video sources. Due to possible deviations between these video sources, you may have to make some adjustment to the monitor settings when switching between these sources. These adjustments are made from the OSD menu.

### 1.2.2. DVI Cable Connection

Plug one end of the DVI signal cable to the video signal connector at the rear of the PC system and the other end to the monitor. Secure the connectors with the screws on the cable connector at both ends.

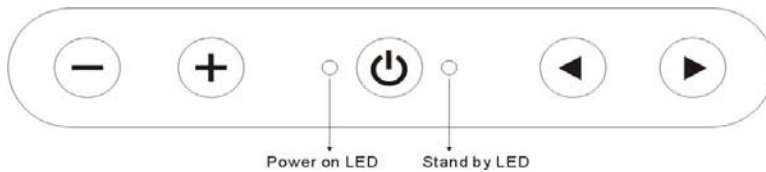
## 2. Using Your VAMP-WN Monitor

### 2.1. OSD

The OSD (On-screen Display) monitor controls are located on the rear side of the panel. They are shown in the figure below and described in the following paragraphs.

### 2.2. Control Key Definition

#### 2.2.1. LCD Monitor, Open Frame, Chassis, Rear Mount Monitor OSD Buttons



#### 2.2.2. Key Pad Hot Key Function

Item	Description
	Call main OSD menu
	Press this key to trigger the function for automatic adjustment
	Power switch
	Press this key to increase the value of the volume adjustment
	Press this key to decrease the value of volume adjustment
	Press this compound key to trigger the function for source input switch

### 2.3. Navigating the OSD Menu

1. To display the main menu, press the MENU button ( ) to display the main menu on the screen.
2. To select the menu you want to adjust, press the +/- button to shift the item selections up or down until in desired position, then press the button ( ) again to enter the menu item.
3. To adjust the item setting, press the +/- button to adjust the value of setting. Once you adjust the value of setting, the value will be stored automatically.
4. To exit the OSD menu and return to regular screen viewing, select the "EXIT OSD" item or press the Exit key ( ) directly. If there is no command respond for 30 seconds, OSD menu will be closed automatically.

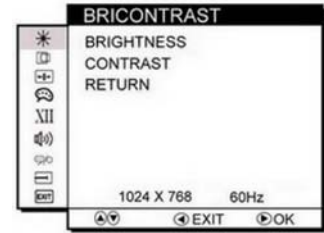


## 2.4. OSD Menu on VGA Mode

### 2.4.1. Bricontrast

Press "+" to increase or "-" to decrease the brightness or contrast

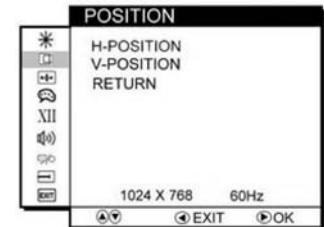
- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast



### 2.4.2. Position

You can adjust the screen's position horizontally and vertically.

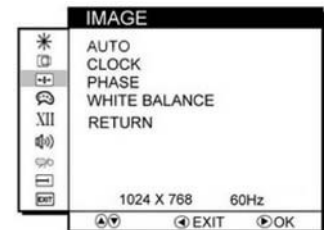
- H-POSITION: Use to adjust the image to the left or right on the screen
- V-POSITION: Use to adjust the image up or down on the screen



### 2.4.3. Image

You can adjust the value of screen quality automatically.

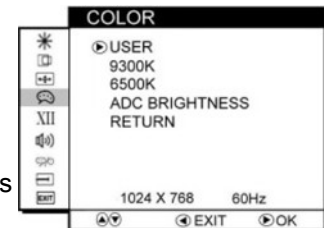
- AUTO: Use to choose the best settings for the current input signal
- CLOCK: Use to adjust the value of horizontal image
- PHASE: Use to adjust the phase control (Phase adjustment may be required to optimize the display quality)
- WHITE BALANCE: Use to set RGB signal voltage level



### 2.4.4. Color

You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine-tune the color temperature by USER option if necessary.

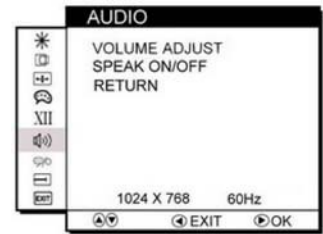
- USER: Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- 9300K: Use to set value of the monitor for CIE coordinate 9300K color temperature
- 6500K: Use to set value of the monitor for CIE coordinate 6500K color temperature
- ADC Brightness: Set value of monitor for ADC Brightness



### 2.4.5. Audio (optional)

You can adjust the settings for the speaker, including volume and mute.

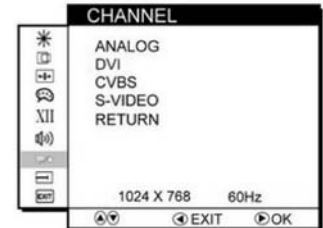
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



### 2.4.6. Channel (optional)

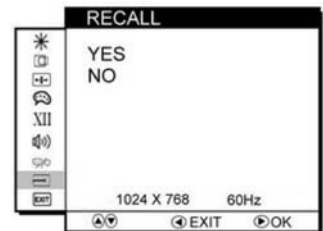
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode



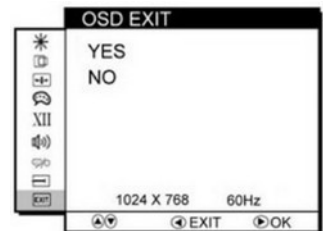
### 2.4.7. Recall

You can recall the factory default setting by selecting “YES”. Select “NO” to return the main menu.



### 2.4.8. OSD Exit

You can exit the OSD menu by selecting “YES”. Select “NO” to return the main menu.



### 2.4.9. Summary

	Bricontrast	Brightness Contrast		Channel	Analog DVI CVBS S-Video
	Position	H-Position V-Position		Audio	Volume Adjust Speak On/Off
	Image	Auto Clock Phase White Balance		Recall	Yes No
	Color	User - (Red/Green/Blue) 9300K 6500K ADC Brightness		OSD Exit	Yes No

## 2.5. OSD Menu on AV (CVBS/S-Video) Mode (Option)

### 2.5.1. Bricontrast

Press "+" to increase or "-" to decrease the brightness or contrast

- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast

### 2.5.2. Sharpness

Press "+" to increase or "-" to increase or decrease the value of sharpness. This function allows the user to optimize the sharpness of the image.

### 2.5.3. Saturation

Press "+" to increase or "-" to increase or decrease the value of saturation

### 2.5.4. Hue

Press "+" to increase or "-" to obtain the desired color settings. The Hue is defined as a phase shift of the sub-carrier with respect to the burst.

### 2.5.5. AUDIO (optional)

You can adjust the setting of speaker, including volume and mute.

- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to mute/un-mute the speaker

### 2.5.6. Channel (optional)

You can switch the setting of signal input channel.

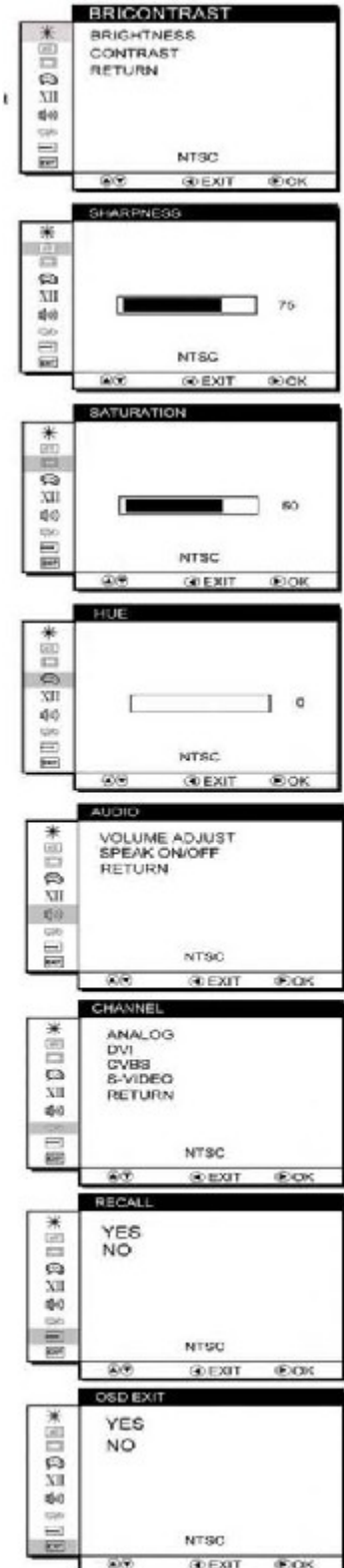
- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode

### 2.5.7. Recall








You can recall the factory default setting by selecting "YES". Select "NO" to return the main menu.

### 2.5.8. OSD Exit

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



### 2.5.9. Summary

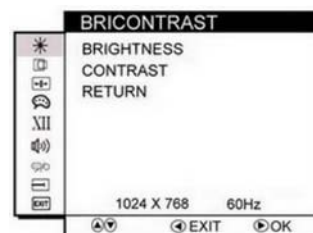
	Bricontrast	Brightness Contrast			
	Sharpness			Channel	Analog DVI CVBS S-Video
	Hue			Recall	Yes No
	Audio	Volume Adjust Speak On/Off		OSD Exit	Yes No

## 2.6. OSD Menu on DVI Mode (Option)

### 2.6.1. Bricontrast

Press "+" to increase or "-" to decrease the brightness or contrast

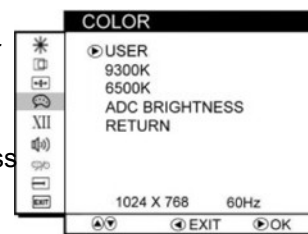
- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast



### 2.6.2. Color

You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine-tune the color temperature by USER option if necessary.

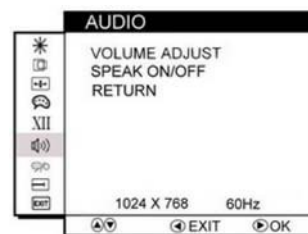
- USER: Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- 9300: Use to set value of monitor for the CIE coordinate 9300 color temperature
- 6500K: Use to set value of monitor for the CIE coordinate 6500 color temperature
- ADC Brightness: Set value of monitor for ADC Brightness



### 2.6.3. AUDIO (optional)

You can adjust the setting of speaker, including volume and mute.

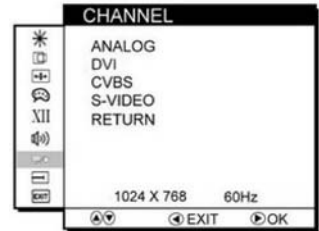
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



### 2.6.4. Channel (optional)

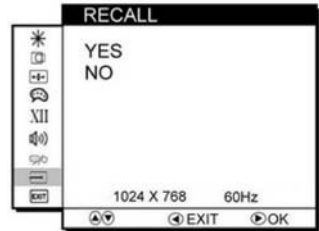
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode



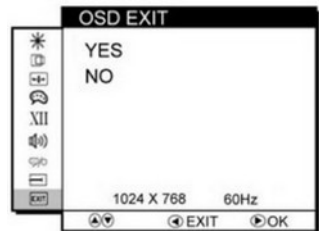
### 2.6.5. Recall

You can recall the factory default setting by selecting “YES”. Select “NO” to return the main menu.









### 2.6.6. OSD Exit

You can exit the OSD menu by selecting “YES”. Select “NO” to return the main menu.



### 2.6.7. Summary

	Bricontrast	Brightness Contrast		Channel	Analog DVI CVBS S-Video
	Color	User - (Red/Green/Blue) 9300K 6500K ADC Brightness		Recall	Yes No
	Audio	Volume Adjust Speak On/Off		OSD Exit	Yes No

### 3. Cleaning the LCD Monitor

1. Make sure the monitor is turned off.
2. Never spray or pour any liquid directly onto the screen or case.
3. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
4. The display area is highly prone to scratching. Do not use ketone type material (e.g. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
5. If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen. We do not recommend using any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. The manufacturer will not be liable for damage resulting from the use of any ammonia or alcohol-based cleaner.
6. Don't use water or oil directly on the monitor. If droplets are allowed to dry on the monitor permanent staining or discoloration may occur.

## 4. Trouble Shooting

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

Condition	Check Point
1. The picture does not appear	<ul style="list-style-type: none"> <li>• Check if the signal cable is firmly seated in the socket.</li> <li>• Check if the Power is ON at the computer</li> <li>• Check if the brightness control is at the appropriate position, not at the minimum.</li> </ul>
2. The screen is not synchronized	<ul style="list-style-type: none"> <li>• Check if the signal cable is firmly seated in the socket.</li> <li>• Check if the output level matches the input level of your computer.</li> <li>• Make sure the signal timings of the computer system are within the specification of the monitor.</li> <li>• If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.</li> </ul>
3. The position of the screen is not in the center	<ul style="list-style-type: none"> <li>• Adjust the H-position, and V-position, or Perform the Auto adjustment.</li> </ul>
4. The screen is too bright (too dark).	<ul style="list-style-type: none"> <li>• Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).</li> </ul>
5. The screen is shaking or waving	<ul style="list-style-type: none"> <li>• Press (the Auto - adjustment control) to adjust. Moving all objects, which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied.</li> <li>• Check if the signal timing of the computer system is within the specification of monitor.</li> </ul>

If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.

## 5. Appendix A

### 5.1. VGA Input Format

#### 5.1.1. 17"/19" LCD SXGA/XGA Modes

<b>Input mode</b>	<b>Resolution</b>	<b>Zoom to 1024x768</b>	<b>Zoom to 1280x1024</b>
SXGA	1280×1024	N/A	1:1
XGA	1024×768	1:1	Scale up
SVGA	800×600	Scale up	Scale up
VGA	640×480	Scale up	Scale up
DOS (TEXT)	640×400	Scale up	Scale up
DOS (EGA)	640×350	Scale up	Scale up
TEXT	720×400	Scale up	Scale up
MAC	832×624	N/A	N/A
NTSC	720×(240×2)	De-interlaced	De-interlaced
PAL	720×(288×2)	De-interlaced	De-interlaced

#### 5.1.2. 12.1"/15" LCD Modes

<b>Input mode</b>	<b>Resolution</b>	<b>Zoom to 1024x768</b>
XGA	1024×768	1:1
SVGA	800×600	Scale up
VGA	640×480	Scale up
DOS (TEXT)	640×400	Scale up
DOS (EGA)	640×350	Scale up
TEXT	720×400	Scale up
MAC	832×624	HQ scale up
NTSC	720×(240×2)	De-interlaced
PAL	720×(288×2)	De-interlaced



## 6. Appendix B

### 6.1. Separate RGB Video Signal (VGA) Input Timing

Input Timing Range: H: 30 to 80 KHz; V: 50 to 75 Hz

#### 6.1.1. 17"/19" SXGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75
Mode 6	720x400	31.47	70
Mode 7	800x600	35.1	56
Mode 8	800x600	37.9	60
Mode 9	800x600	48.1	72
Mode 10	800x600	46.9	75
Mode 11	1024x768	48.4	60
Mode 12	1024x768	56.5	70
Mode 13	1024x768	60.0	75
Mode 14	1280x1024	64.0	60
Mode 15	1280x1024	80.0	75

#### 6.1.2. 12.1"/10.4"/8.4" SVGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75
Mode 6	720x400	31.47	70
Mode 7	800x600	35.1	56
Mode 8	800x600	37.9	60
Mode 9	800x600	48.1	72
Mode 10	800x600	46.9	75

### 6.1.3. 12.1"/15" XGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75
Mode 6	720x400	31.47	70
Mode 7	800x600	35.1	56
Mode 8	800x600	37.9	60
Mode 9	800x600	48.1	72
Mode 10	800x600	46.9	75
Mode 11	1024x768	48.4	60
Mode 12	1024x768	56.5	70
Mode 13	1024x768	60.0	75

### 6.1.4. 10.4"/8.4"/6.4" VGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75

### 6.1.5. 6.4" VGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x480	31.5	60

### 6.1.6. 17"/23" WXGA LCD Resolution Modes

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75
Mode 6	720x400	31.47	70
Mode 7	800x600	35.1	56
Mode 8	800x600	37.9	60
Mode 9	800x600	48.1	72
Mode 10	800x600	46.9	75
Mode 11	1024x768	48.4	60
Mode 12	1024x768	56.5	70
Mode 13	1024x768	60.0	75
Mode 14	1280x768	48.4	60
Mode 15	1280x768	56.5	70
Mode 16	1280x768	60.0	75

### 6.2. DVI Input Timing (optional)

Input Timing Range: H: 31.47 to 80 KHz; V: 60 Hz

<b>Mode</b>	<b>Resolution</b>	<b>(KHz)</b>	<b>(Hz)</b>
Mode 1	640x480	31.47	60
Mode 2	800x600	37.87	72
Mode 3	1024x768	48.36	75
Mode 4	1280x800	64.0	70

#### **About Computer Dynamics**

Computer Dynamics (A CIMTEC Automation Company) is a leading global provider of flat panel display solutions for a wide range of industries and applications. Our comprehensive product offering includes open-frame, enclosed, and environmentally sealed flat panel display systems in both computer and monitor configurations. Whether you're looking for one of our standard products or a fully custom solution, Computer Dynamics has the breadth, experience and support to deliver what you need. For more than 25 years, CIMTEC Automation has been providing automation solutions throughout the world that deliver value, performance, and innovation.

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