

# *PCIII*™

**Technical Manual  
for VGA conversion Card**

**Portable ATX Cases**



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## **Warning!**

### **Safety Precautions**

- Do not expose the device to rain or humidity in order to avoid risk of fire or electric shock.
- Operate the LCD only at temperatures between +10°C and +40°C.
- Repairs are only to be carried out by specialists.
- The notes and instructions at the device are to be observed.
- This device should always to be placed upon a solid horizontal surface.
- Only clean with neutral cleaning agents and a wet cloth. Do not use liquid cleaning agents or agents containing aerosols.
- Make sure that there is sufficient ventilation in order to avoid any damages due to overheating and in order to guarantee problem-free operation. Never block ventilation slots or other openings with objects and do not position the device at locations where there is not sufficient ventilation.

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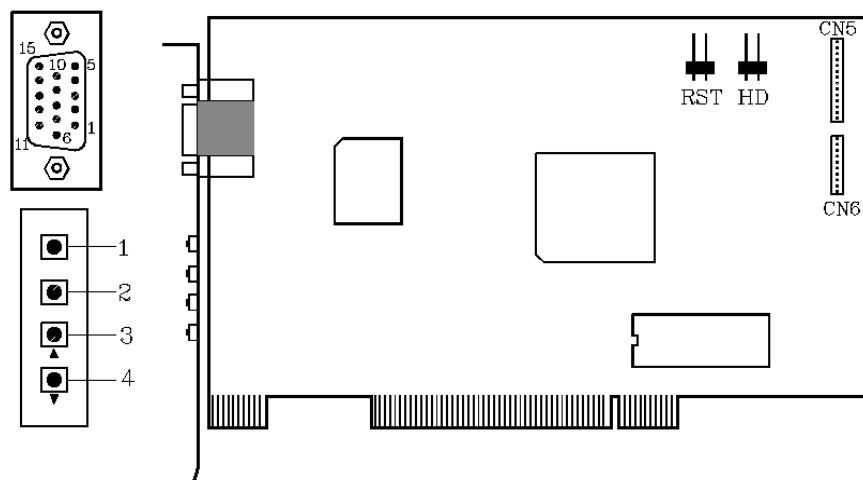
# 1. Hardware Installation

This chapter will guide you the correct installation procedures of this VGA conversion card.

## 1-1. Installation

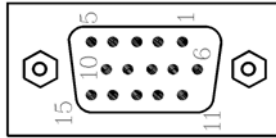
This analog VGA conversion card **DOES NOT** require any special drivers. Necessary drivers are supplied by the video card manufacturer and may be found on the diskettes supplied with the video card that came with your computer. Windows 95/98 drivers for both the display and the video card are supplied on the Windows 95/98 CD or diskettes. You may use the standard XGA (1024X768) as the display type. The video card must also be set up correctly in Windows 95/98 Readme file for further information on Video Card. After the question listed above is solved, we continue the set up procedure as below.

1. Turn power off the Computer before making any connection.
2. Install VGA conversion card on PCI slot.
3. Connect the 15 pin D-SUB cable from VGA card to VGA conversion card.
4. Connect 14 & 15 pin cable to VGA conversion card CN5, CN6.
5. HD connect to HDD indicator of main board.



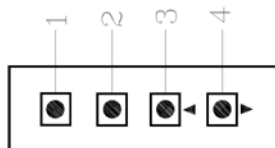
## 1-2 Video input Pin Assignment

This section describes the pin assignment of the LCD's video connector. It is called 15 pin mini D-sub connector.



PIN NO.	SIGNAL CONNECTOR	PIN NO.	SIGNAL CONNECTOR
1	RED VIDEO SIGNAL	9	N.C.
2	GREEN VIDEO SIGNAL	10	GROUND
3	BLUE VIDEO SIGNAL	11	N.C.
4	N.C.	12	DDC DATA
5	GROUND	13	HORIZONTAL SYNC SIGNAL
6	GROUND FOR RED VIDEO SIGNAL	14	VERTICAL SIGNAL
7	GROUND FOR GREEN VIDEO SIGNAL	15	DDC CLOCK
8	GROUND FOR BLUE VIDEO SIGNAL		

### 15 PIN D - SUB CONNECTOR



SWITCH NO.	FUNCTION
1	AUTO CONFIG
2	MENU
3	ADJUST(+)
4	ADJUST(-)

### SWITCH 1

## 2. The Display Timing

Applicable video timing:

The following table lists the better display quality modes that the LCD Monitor provides. If the other video modes are input, the monitor will stop working or display unsatisfactory picture quality.

VESA MODES				
		Horizontal	Vertical	
Mode	Resolution	Nominal Frequency +/-0.5KHz	Nominal Frequency +/-1Hz	Nominal Pixel Clock(MHz)
VGA	640*350@85Hz	37.861	85.080	31.500
	640*400@85Hz	37.861	85.080	31.500
	720*400@85Hz	37.927	85.039	35.500
	640*480@60Hz	31.469	59.940	25.175
	640*480@72Hz	37.861	72.809	31.500
	640*480@75Hz	37.500	75.000	31.500
	640*480@85Hz	43.269	85.008	36.000
SVGA	800*600@56Hz	35.156	56.250	36.000
	800*600@60Hz	37.879	60.017	40.000
	800*600@72Hz	48.077	72.188	50.000
	800*600@75Hz	46.875	75.000	49.500
	800*600@85Hz	53.674	85.061	56.250
XGA	1024*768@60Hz	48.363	60.004	65.000
	1024*768@72Hz	56.476	70.069	75.000
	1024*768@75Hz	60.023	75.029	78.750
	1024*768@85Hz	68.677	84.997	94.500

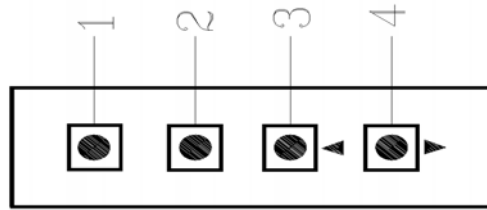
Table 2.1 Applicable video timing

IBM MODES				
		Horizontal	Vertical	
Mode	Resolution	Nominal Frequency +/-0.5KHz	Nominal Frequency +/-1Hz	Nominal Pixel Clock(MHz)
EGA	640*350@70Hz	31.469	70.086	25.175
CGA	640*400@70Hz	31.469	70.086	25.175
DOS	720*400@70Hz	31.469	70.087	28.322
VGA	640*480@60Hz	31.469	59.940	25.175
XGA	1024*768@72Hz	57.515	72.100	75.000
XGA	1024*768@87Hz Interlace	35.522	43.479	44.900

Table 2.2 Applicable video timing

### 3. The Display Controls

#### 3-1 Display Controls



- 1 Auto : Auto adjust the image.
- 2 Menu : Enter the OSD adjust menu and select the menu.
- 3 Adjust(+) : To scroll up in menu or to increase value of selected item.
- 4 Adjust (-) : To scroll down in menu or to decrease value of selected item.

#### 3-2 Screen Adjustment Operation Procedure

- 1) Entering the screen adjustment  
Push the **2** button once to display the main menu of the screen adjustment. The adjustable items will be displayed in the main menu.
- 2) Entering the settings  
Use the Adjust(+)  $\Delta$  and Adjust(-)  $\nabla$  buttons to select the desired setting icon and push the **2** button to enter sub-menu.
- 3) Change the settings  
After the sub-menu appears, use the Adjust(+)  $\Delta$  and Adjust(-)  $\nabla$  buttons to change the setting values.
- 4) Save  
After finishing the adjustment, select **exit** icon button to exit and set save "yes", then push **2** to save.
- 5) Return & Exit the main menu  
To go back to the previous menu or exit the screen adjustment, push the **2** button and select **exit** icon to exit the main menu.

## 4. The Screen Adjustment

### 4-1 Main Menu

The OSD main menu (figure 4-1) is displayed on screen when **[2]** key is pressed. The OSD menu is a combination of graphic and text display. The bottom line of main menu shows the current selected or active menu item .

The **△** and **▽** keys are used to scroll through items within the menu. The selected item is highlighted as the scrolling move along. The **[2]** key is used to close the sub-menu.

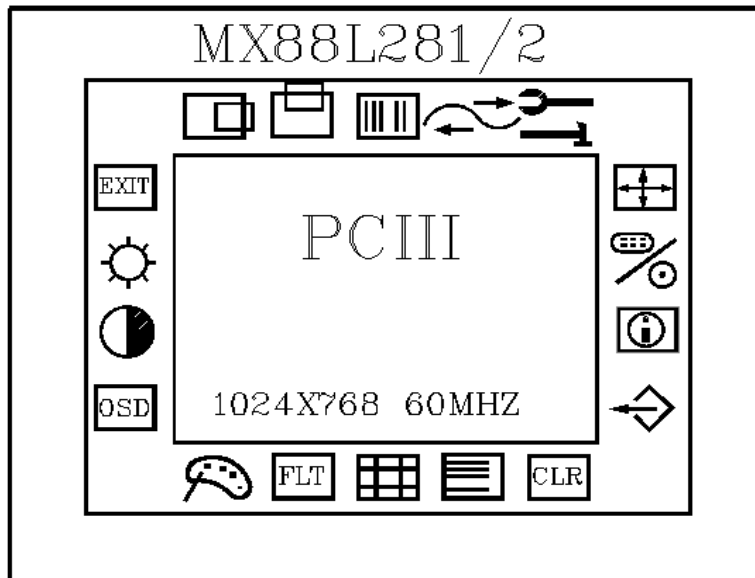



















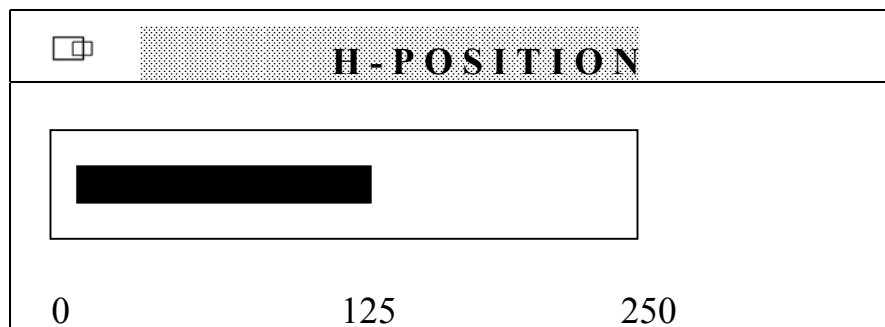
Figure 4-1: OSD main menu

	<b>H Position</b>	<b>Adjust the horizontal image position</b>
	<b>V Position</b>	<b>Adjust the vertical image position</b>
	<b>Clock</b>	<b>Adjust the pixel clock</b>
	<b>Phase</b>	<b>Adjust the pixel phase</b>

	<b>Auto Config</b>	Auto config the clock phase and position
	<b>EXPAND</b>	Expand the image
	<b>INPUT SELECT</b>	Select the input signal source
	<b>INFORMATION</b>	Check the Input information
	<b>RECALL</b>	Recall EEPROM default
	<b>CLEAR EEPROM</b>	Set to the factory default
	<b>LINE WRITE</b>	Test display
	<b>SCALE UP</b>	Don't care
	<b>EDGE FLITER</b>	Adjust the image sharpness
	<b>MISC FUNC</b>	Adjust the image color
	<b>OSD ADJUST</b>	Set up OSD position and size
	<b>CONTRAST</b>	Set up the contrast of the panel
	<b>BRIGHTNESS</b>	Set up the brightness of the panel
	<b>EXIT</b>	Exit the menu and save

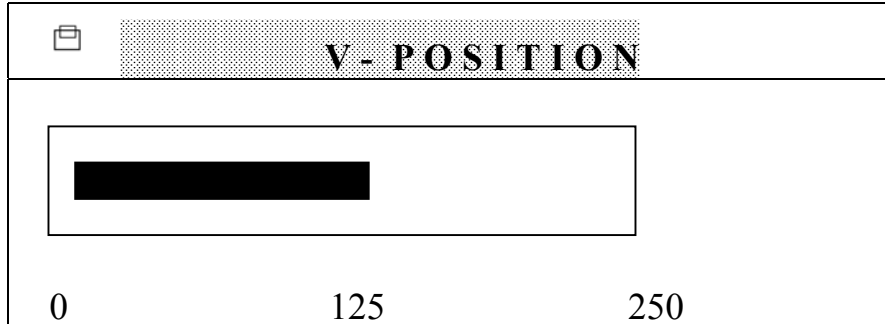
## 4-2 Horizontal Position

The item "H-Position" is used to adjust the horizontal image position. A slider with current value is displayed. The range of the horizontal position adjustment value is 0 to 250.



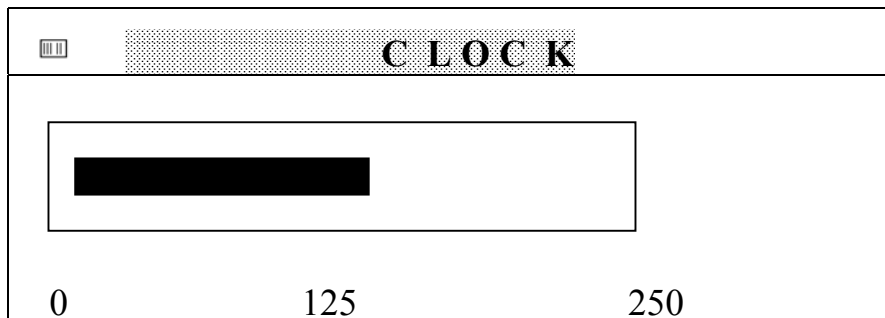
### 4-3 Vertical Position

The item "V-Position" is used to adjust the vertical image position. A slider with current value is displayed. The range of vertical position adjustment value is 0 to 250



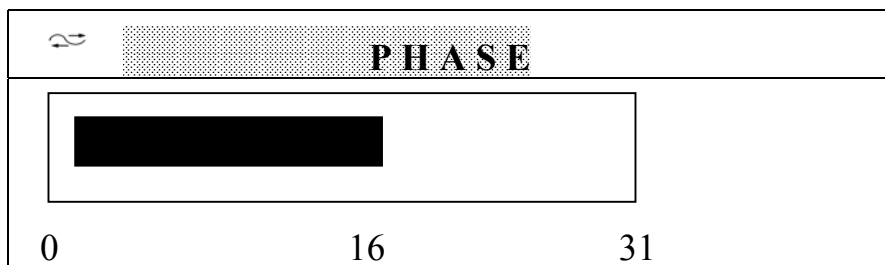
### 4-4 Clock

The item "Clock" is used to adjust the number of clocks (pixels) per line (sample per line). A slider with current value is displayed.




### 4-5 Phase

The item "Phase" is used to adjust the ADC sample pixel clock. A slider with current value is displayed. The range of phase adjustment value is 0 to 31 for 0 to 360 degrees.




#### 4-6 Auto Configuration

The main menu item "Auto config" is used to perform automatic configuration of the phase, clock, color, vertical and horizontal position. Select sub-menu "Auto adjust" to adjust phase, clock, color and position. Select "Auto tracking" to adjust phase and clock. Select "Auto position" to adjust horizontal and vertical position. Select "Auto gain" to adjust color.

	<b>AUTO CONFIGURATION</b>
	<b>AUTO ADJUST</b>
	<b>AUTO TRACKING</b>
	<b>AUTO POSITION</b>
	<b>AUTO AGIN</b>
	<b>RETURN</b>


#### 4-7 Expand

The main menu "Expand" is used to adjust display size, select the sub-menu, zoom "In/Out" to adjust the display size from -15 to 15.

	<b>EXPAND</b>
	<b>1 : 1</b>
	<b>FULL SCREEN</b>
	<b>ASPECT RATIO</b>
	<b>ZOOM IN/OUT</b>
	<b>RETURN</b>

#### 4-8 Input Select

Please select to sub-menu "VGA"

	<b>INPUT SELECT</b>
	<b>VGA</b>
	<b>NTSC VISEO IN</b>
	<b>PAL VIDEO IN</b>
	<b>RETURN</b>

#### 4-9 Information

This item display VGA Input information.

<input type="checkbox"/>	<b>INFORMATION</b>
	1024 x 768 60NHZ HS1PRD : 2035 VS1PRD : 806 HS1PLS : 204 VS1PLS : 6 VTOTAL: 0 SCAN : NINT VS1POL : NEG VS1POL : NEG 081aS15 092899

#### 4-10 Recall

The item "Recall" is used to set to default value. The item "yes" is set the horizontal, vertical, phase, clock is adjusted to default value.

<input type="checkbox"/>	<b>RECALL</b>
	<b>YES</b> <b>NO</b>


#### 4-11 Clear EEPROM

The item "Clear EEPROM" is used to set the EEPROM to factory default. The item "yes" is set, restart the computer, the display is set to factory default and the display size is selected to minimum, please select "Expand" to adjust the display size.

<input type="checkbox"/>	<b>CLEAR EEPROM</b>
	<b>YES</b> <b>NO</b>


#### 4-12 Line write

This item is used to display color bar, dot, cross line and H pattern.


	<b>Still Mode</b>
<b>MOTION MODE</b>	
COLOR BAR	
DOT x 1	
DOT x 2	
DOT x 3	
CHECK x 1	
CHECK x 2	
CHECK x 3	
H PATTERN	
RETURN	

#### 4-13 Edge Filter

The main item "Edge Filter" is used to adjust the sharpness of display. The range of the adjustment is -63 to 63.

<b>FLT</b>	<b>EDGE FILTER</b>	
		
-63	1	63

#### 4-14 MISC FUNC

	<b>MISC FUNC</b>
<b>ADC R GAIN</b>	
ADC G GAIN	
ADC B GAIN	
ADC R OFFSET	
ADC G OFFSET	
ADC B PFFSET	
RETURN	

#### 4-14-1 ADC R GAIN

The item "ADC R GAIN" is used to adjust the gain of red channel in ADC. The range of the adjustment value is 0 to 255.

#### 4-14-2 ADC G GAIN

The item "ADC G GAIN" is used to adjust the gain of green channel in ADC. The range of the adjustment value is 0 to 255.

#### 4-14-3 ADC B GAIN

The item "ADC B GAIN" is used to adjust the gain of blue channel in ADC. The range of the adjustment value is 0 to 255.

#### 4-14-4 ADC R OFFSET

The item "ADC R OFFSET" is used to adjust the offset of red channel in ADC. The range of the adjustment value is 0 to 63.

#### 4-14-5 ADC G OFFSET

The item "ADC G OFFSET" is used to adjust the offset of green channel in ADC. The range of the adjustment value is 0 to 63.

#### 4-14-6 ADC B OFFSET

The item "ADC B OFFSET" is used to adjust the offset of blue channel in ADC. The range of the adjustment value is 0 to 63.

### 4-15 OSD Adjust

<b>OSD</b>	<b>OSD ADJUST</b>
	<b>OSD H POSITION</b>
	<b>OSD V POSITION</b>
	<b>OSD BLENDING</b>
	<b>OSD FONT SIZE</b>
	<b>RETURN</b>

#### 4-15-1 OSD H Position

The item "OSD H Position" is used to adjust the OSD menu horizontal position. The range of the adjustment value is 0 to 255.

#### 4-15-2 OSD V Position

The item "OSD V Position" is used to adjust the OSD menu vertical position. The range of the adjustment value is 0 to 255.

#### 4-15-3 OSD Blending

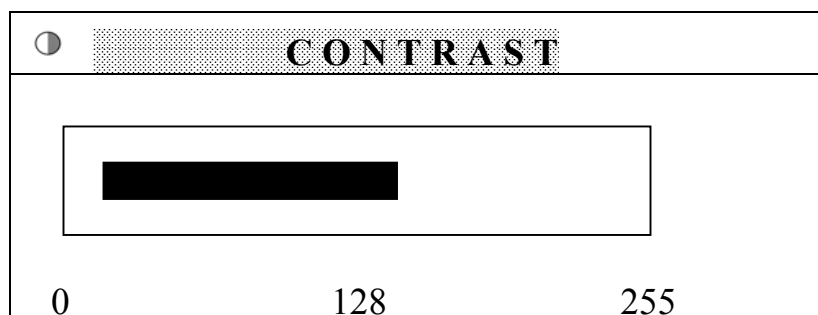
The item "OSD Blending" is used adjust the light of the OSD menu. There are four steps for selection.

#### 4-15-4 OSD Font Size

The item "OSD Font Size" is used adjust the size of the OSD menu. There are four steps for selection.

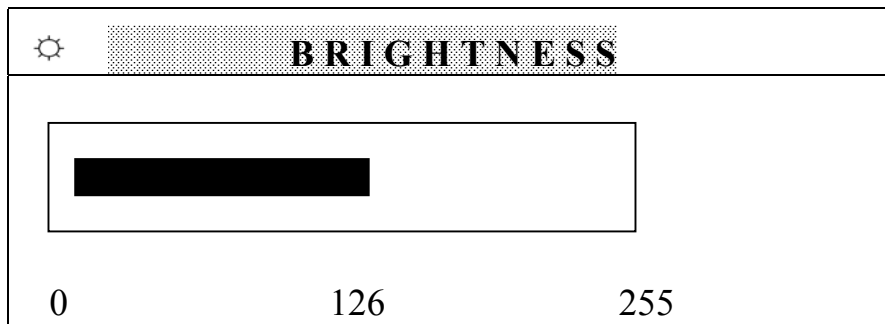
### 4-16 Contrast

**The main menu item "Contrast" is used to adjust the contrast of the panel. A slider with current contrast value is displayed. The range of contrast adjustment value is 0 to 255.**



#### 4-17 Brightness

The main menu item "Brightness" is used to adjust the brightness of the panel. A slider with current brightness value is displayed. The range of brightness adjustment value is 0 to 255.



#### 4-18 EXIT

Exit the menu and save.

