MoniQ-1500/1700/1900

15"/17"/19" OPS-module-pluggable Multi-touch Bezel-Free Flat Panel Monitor

User’s Guide

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Safety Instructions

■ Before You Begin

Before handling the product, read the instructions and safety guidelines on the following pages to prevent damage to the product and to ensure your own personal safety. Refer to the “Advisories” section in the Preface for advisory conventions used in this user’s guide, including the distinction between Warnings, Cautions, Important Notes, and Notes.

- Always use caution when handling/operating a computer. Only qualified, experienced, authorized electronics service personnel should access the interior of a computer. The power supplies produce high voltages and energy hazards, which can cause bodily harm.
- Use extreme caution when installing or removing components. Refer to the installation instructions in this user’s guide for precautions and procedures. If you have any questions, please contact our Post-Sales Technical Support.

WARNING

High voltages are present inside the chassis when the unit’s power cord is plugged into an electrical outlet. Turn off system power, turn off the power supply, and then disconnect the power cord from its source before removing the chassis cover. Turning off the system power switch does not remove power to components.

■ When Working Inside a Computer

Before taking covers off a computer, perform the following steps:

1. Turn off the computer and any peripherals.
2. Disconnect the computer and peripherals from their power sources or subsystems to prevent electric shock or system board damage. This does not apply when hot swapping parts.

3. Follow the guidelines provided in “Preventing Electrostatic Discharge” on the following page.
4. Disconnect any telephone or telecommunications lines from the computer.

In addition, take note of these safety guidelines when appropriate:

- To help avoid possible damage to system boards, wait five seconds after turning off the computer before removing a component, removing a system board, or disconnecting a peripheral device from the computer.
- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs. If you are disconnecting this type of cable, press in on the locking tabs before disconnecting the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before connecting a cable, make sure both connectors are correctly oriented and aligned.

CAUTION

Do not attempt to service the system yourself except as explained in this user’s guide. Follow installation and troubleshooting instructions closely.

Preventing Electrostatic Discharge

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedure to reduce the risk of damage to components. We strongly encourages you to follow proper ESD procedure, which can include wrist straps and smocks, when servicing equipment.
You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component’s antistatic packing material until you are ready to install the component in a computer. Just before unwrapping the antistatic packaging, be sure you are at an ESD workstation or grounded. This will discharge any static electricity that may have built up in your body.

- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components at an ESD workstation. If possible, use antistatic floor pads and workbench pads.
- Handle components and boards with care. Don’t touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.
- Do not handle or store system boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.

Preface

■ How to Use This Guide

This guide is designed to be used as step-by-step instructions for installation, and as a reference for operation, troubleshooting, and upgrades.

■ Unpacking

When unpacking, follow these steps:

1. After opening the box, save it and the packing material for possible future shipment.
2. Remove all items from the box. If any items listed on the purchase order are missing, notify our customer service immediately.
3. Inspect the product for damage. If there is damage, notify our customer service immediately. Refer to “Warranty Policy” for the return procedure.

■ Regulatory Compliance Statements

This section provides the FCC compliance statement for Class A devices.

FCC Compliance Statement for Class A Devices

The product(s) described in this user’s guide 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 user’s guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area (domestic environment) is likely to cause harmful interference, in which case the user will be required to correct the interference (take adequate measures) at their own expense.

Changes or modifications not expressly approved by us could void the user's authority to operate the equipment.

NOTE

The assembler of a personal computer system may be required to test the system and/or make necessary modifications if a system is found to cause harmful interference or to be noncompliant with the appropriate standards for its intended use.

■ Maintaining Your Computer

Environmental Factors

■ Temperature

The ambient temperature within an enclosure may be greater than room ambient temperature. Installation in an enclosure should be such that the amount of air flow required for safe operation is not compromised. Consideration should be given to the maximum rated ambient temperature. Overheating can cause a variety of problems, including premature aging and failure of chips or mechanical failure of devices.

If the system has been exposed to abnormally cold temperatures, allow a two-hour warm-up period to bring it up to normal operating temperature before turning it on. Failure to do so may cause damage to internal components, particularly the hard disk drive.

■ Humidity

High-humidity can cause moisture to enter and accumulate in the system. This moisture can cause corrosion of internal components and degrade such properties as electrical resistance and thermal conductivity. Extreme moisture buildup inside the system can result in electrical shorts, which can cause serious damage to the system.

Buildings in which climate is controlled usually maintain an acceptable level of humidity for system equipment. However, if a system is located in an unusually humid location, a dehumidifier can be used to maintain the humidity within an acceptable range. Refer to the “Specifications” section of this user’s guide for the operating and storage humidity specifications.

■ Altitude

Operating a system at a high altitude (low pressure) reduces the efficiency of the cooling fans to cool the system. This can cause electrical problems related

to arcing and corona effects. This condition can also cause sealed components with internal pressure, such as electrolytic capacitors, to fail or perform at reduced efficiency.

Power Protection

The greatest threats to a system's supply of power are power loss, power spikes, and power surges caused by electrical storms, which interrupt system operation and/or damage system components. To protect your system, always properly ground power cables and one of the following devices.

- **Surge Protector**

  Surge protectors are available in a variety of types and usually provide a level of protection proportional with the cost of the device. Surge protectors prevent voltage spikes from entering a system through the AC power cord. Surge protectors, however, do not offer protection against brownouts, which occur when the voltage drops more than 20 percent below the normal AC line voltage level.

- **Line Conditioner**

  Line conditioners go beyond the over voltage protection of surge protectors. Line conditioners keep a system's AC power source voltage at a fairly constant level and, therefore, can handle brownouts. Because of this added protection, line conditioners cost more than surge protectors. However, line conditioners cannot protect against a complete loss of power.

- **Uninterruptible Power Supply**

  Uninterruptible power supply (UPS) systems offer the most complete protection against variations on power because they use battery power to keep the server running when AC power is lost. The battery is charged by the AC power while it is available, so when AC power is lost, the battery can provide power to the system for a limited amount of time, depending on the UPS system.

  UPS systems range in price from a few hundred dollars to several thousand dollars, with the more expensive unit s allowing you to run larger systems for a longer period of time when AC power is lost. UPS systems that provide only 5 minutes of battery power let you conduct an orderly shutdown of the system, but are not intended to provide continued operation. Surge protectors should be used with all UPS systems, and the UPS system should be Underwriters

Laboratories (UL) safety approved.

Chapter 1

Introduction

■ Overview

MoniQ-1500/1700/1900 is an innovative 15" / 17" / 19" multi-touch bezel-free flat panel monitor with an OPS module slot reserved. Thus, it could be a monitor when you connect it to a PC and could transform into a panel PC when you insert an OPS module into it.

The 10-point PCT multi-touch panel provides a friendly intuitive interface and enables possible gesture-controlled applications. Besides, it comes with 1x HDMI, 1x DVI-D and 1x VGA for various viewing options. Equipped with an IP65-rated front bezel and anti-scratch glass surface, it provides excellent resistance to harsh environments and thus is highly suited to a wide range of industrial applications.

Checklist

- MoniQ-1500/1700/1900
- Power Adapter
- Power Cord
- 1x USB2.0 Cable
- 1x HDMI Cable
- Quick installation Guide
- 1x Panel Mounting Kit (with screw bag)
- Optional VESA Mounting Kit

Features

- 15"/17"/19" 10-point PCT multi-touch LCD Display
- 1x OPS module slot
- 1x HDMI, 1x DVI-D, 1x VGA
- 1x USB2.0 for touch functionality
- IP65 approved front bezel
- Glass hardness of 6H

- Bezel-free flat panel design
- "Monitor" mode and "Panel PC" mode switchable

■ Product Specifications

LCD Display	MoniQ-1500	MoniQ-1700	MoniQ-1900
Display Size	15"	17"	19"
Aspect Ratio	4:3	5:4	5:4
Backlight	LED	LED	LED
Resolution	1024 x 768 XGA	1280 x 1024 SXGA	1280 x 1024 SXGA
Brightness (typical)	350 cd/m2	350 cd/m2	250 cd/m2
Contrast Ratio (typical)	600:1	1000:1	1000:1
Color	16.2M	16.2M	16.7M
View Angle (L/R/H/L)	45°/45°/20°/45°	85°/85°/80°/80°	85°/85°/80°/80°
Touch Sensor	10-point PCT multi-touch sensor		
External Display	1x HDMI (on rear) 1x DVI-D (on rear) 1x VGA (on rear)		
Audio	1x Line-out (on rear) 1x Line-in (on rear)		
USB	1x USB2.0 (Type A on rear for Touch)		
OPS Slot	1x OPS module slot (with cover on right side)		
Power	Connector: DC Jack (on rear) Input Voltage: DC 12V (Optional: DC 24V)		
Status Indicator	1x Power LED (on left side)		
Button & Switch	1x Power Button (on left side) 1x Menu / Enter Button (on left side) 1x Up Button (on left side) 1x Down Button (on left side) 1x Exit Button (on left side)		
Cooling	Smart Fan (working only when OPS module is in operation)		
Construction	Glass Surface + Aluminum Front Bezel + Metal Chassis		
Dimensions (W x H x D)	381.7 x 305.6 x 69.3 mm / 15.03" x 12.03" x 2.73"	413.0 x 343.9 x 73.3 mm / 16.26" x 13.54" x 2.89"	447.3 x 372.0 x 68.3 mm / 17.61" x 14.65" x 2.69"
Weight	MoniQ-1500: 4.6 kg / 10.14 lb MoniQ-1700: 5.8 kg / 12.79 lb MoniQ-1900: 6.4 kg / 14.11 lb		
Environment	Operation Temperature: 0°C ~ 50°C / 32°F ~ 122°F Storage Temperature: -20°C ~ 70°C / -4°F ~ 158°F Humidity: 0% ~ 95%		

Mounting	VESA Mount, Panel Mount
Certification	CE, FCC Class A

Table 1 QTM-1500/1700/1900 product specifications

■ System Tour

Refer to the diagrams below to identify the components of the system.

■ I/Os

Figure 1 I/Os

USB2.0

This USB (Universal Serial Bus) 2.0 port is for touch functionality only. It works only in case of no OPS module inserted into the MoniQ Series. It doesn't work either even though the screen is switched to "Monitor" mode but with an OPS module in the MoniQ Series.

DC Jack

The supplied power adapter converts AC power to DC for use with this jack. Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

HDMI

HDMI connector for display output

DVI-D

DVI-D is an acronym which means Digital Video Interface Digital. Essentially it is a cable that connects two devices producing an output image on a screen.

VGA

D-Sub 15 pin VGA connector for display output

Line-Out (Green)

The stereo headphone jack is used to connect the system’s audio out signal to amplified speakers or headphones.

Line-In (Blue)

The Line-in jack is designed to take input from a higher-powered sound source.

■ Control Panel Keypad

Figure 2 Control Panel Keypad

Power Button

To turn the monitor on and off

Power LED

To indicate the power status of the LCD panel

Menu / Enter Button

To turn on the OSD menu or to confirm the selection

Up Button

To move to the next item, to display the next setting function, or to increase the setting value

Down Button

To move to the previous item, to display the previous setting function, or to decrease the setting value

Exit Button

To turn off the OSD menu or to move from a sub-menu to main menu and save the changes made in the sub-menu

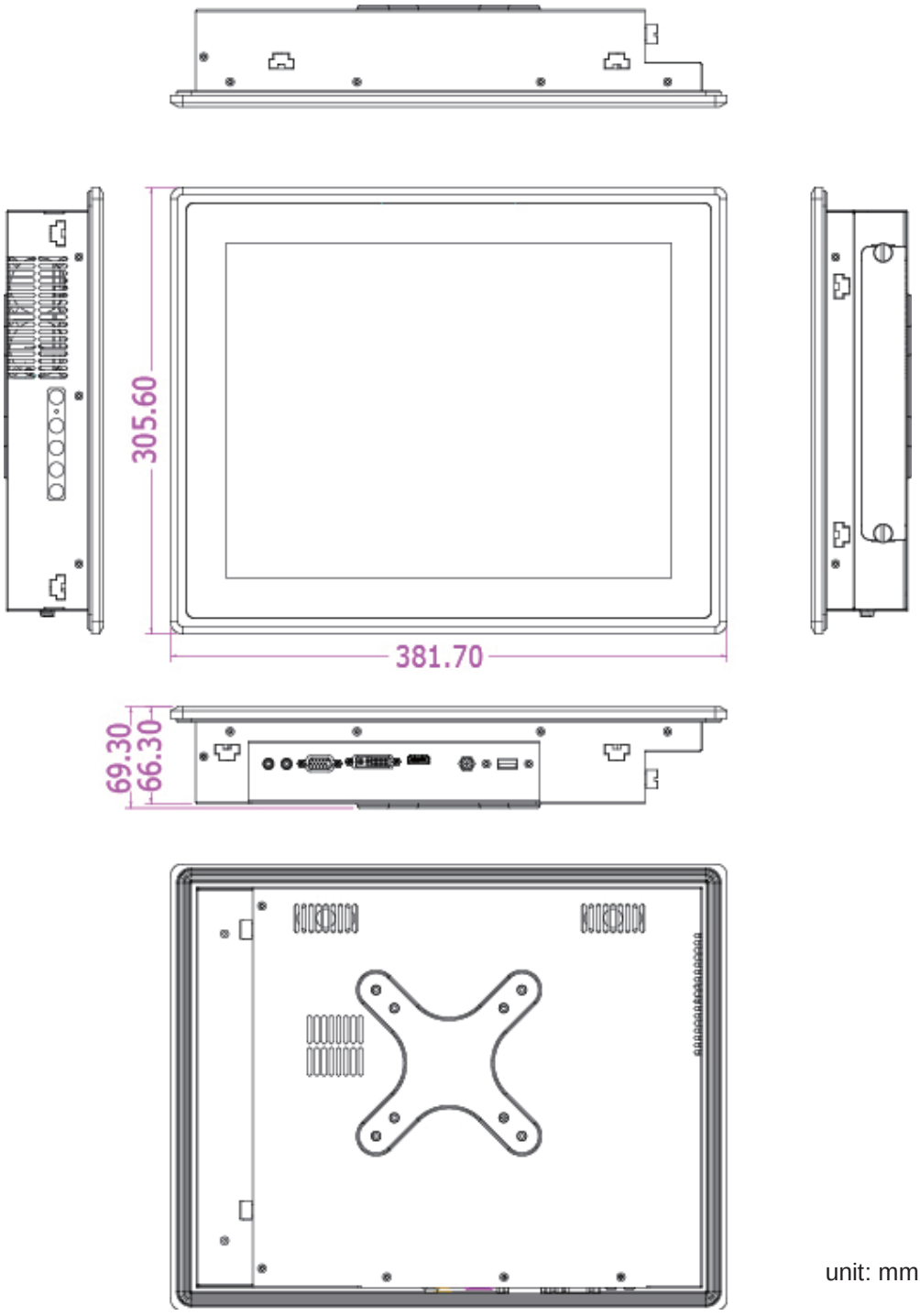
■ OPS Module Slot

Figure 3 OPS Module Slot

OPS Module Slot

A slot with a removable cover to insert an OPS module in it

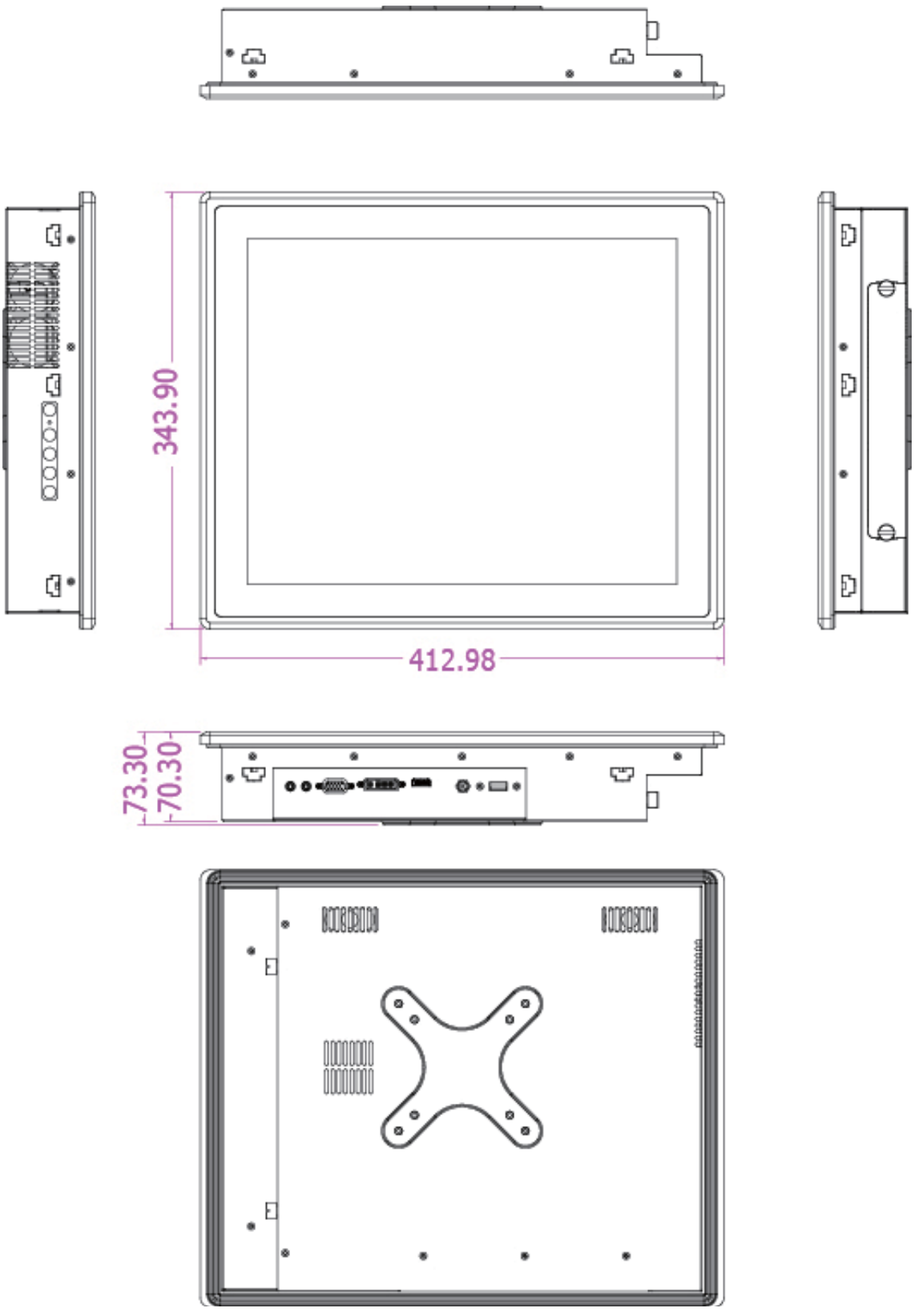
■ Mechanical Dimensions



unit: mm

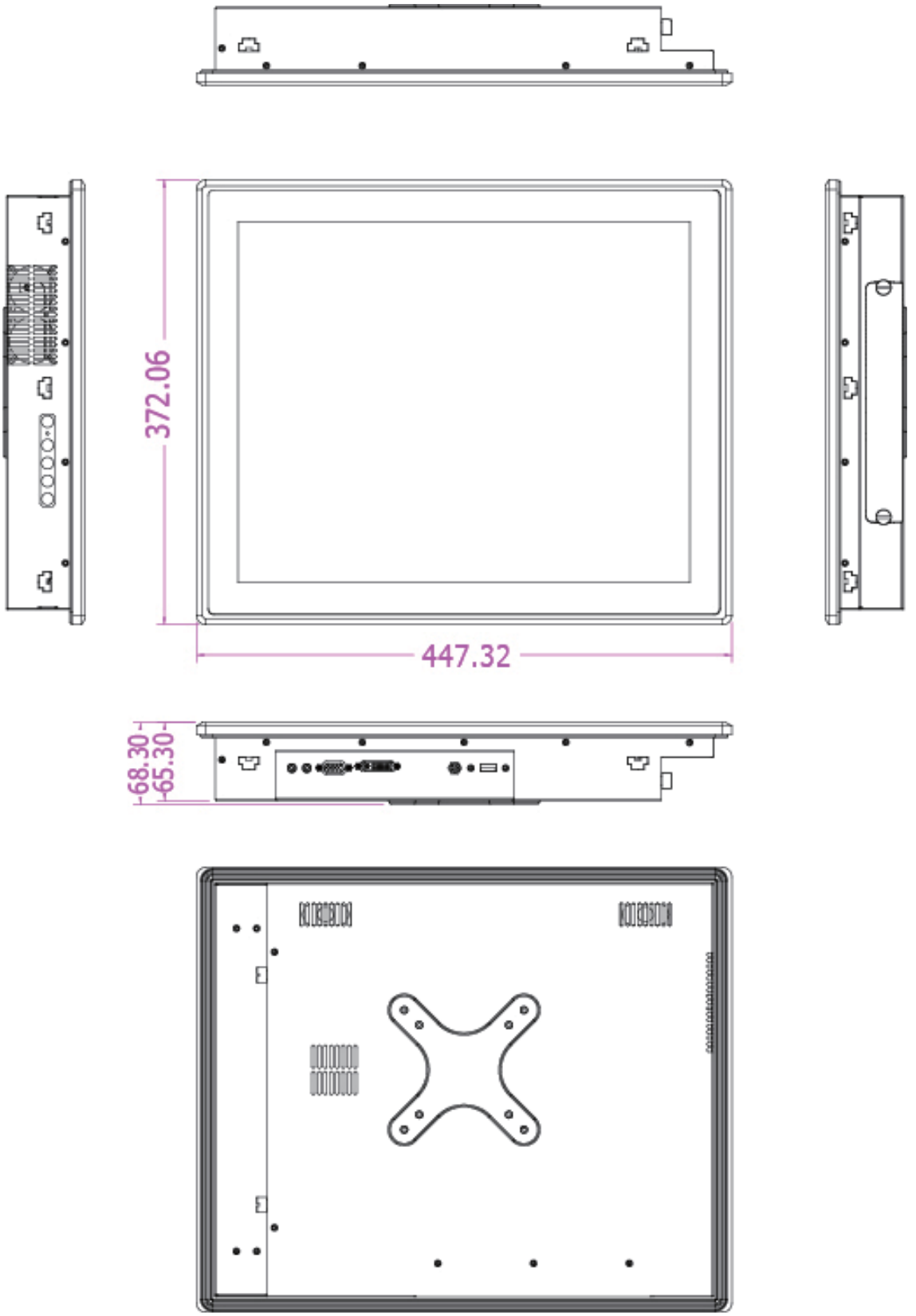
381.7 x 305.6 x 69.3 mm (W x H x D)

Figure 4 Mechanical Dimensions of MoniQ-1500



413.0 x 343.9 x 73.3 mm (W x H x D)

Figure 5 Mechanical Dimensions of MoniQ-1700



447.3 x 372.1 x 68.3 mm (W x H x D)

Figure 6 Mechanical Dimensions of MoniQ-1900

Chapter 2

Getting Started

■ Setting up your monitor

■ Inserting an OPS module

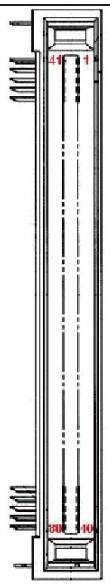
(Ignore this step if you don't use it as a panel PC.)

1. Unscrew the removable cover from the OPS module slot
2. Insert an OPS module into the OPS module slot
3. Firmly screw the OPS module to the monitor

OPS Module Slot with Removable Cover

Figure 7 OPS Module Slot

OPS Docking Pin Assignment



Pin	Signal Name	Pin	Signal Name
41	StdB_SSRXStdB_	1	DDP_3N
42	SSRX+	2	DDP_3P
43	GND	3	GND
44	StdB_SSTXStdB_	4	DDP_2N
45	SSTX+	5	DDP_2P
46	GND	6	GND
47	USB_PN3	7	DDP_1N
48	USB_PP3	8	DDP_1P
49	GND	9	GND
50	SYS_FAN	10	DDP_0N
51	UART_RXD	11	DDP_0P

	52	UART_TXD	12	GND
	53	GND	13	DDP_AUXN
	54	StdA_SSRXStdA_	14	AAP-AUXP
	55	SSRX+	15	DDP_HPD
	56	GND	16	GND
	57	StdA_SSTXStdA_	17	TMDS_CLKTMDS_
	58	SSTX+	18	CLK+
	59	GND	19	GND
	60	USB_PN2	20	TMDS_0-
	61	USB_PP2	21	TMDS_0+
	62	GND	22	GND
	63	USB_PN1	23	TMDS_1-
	64	USB_PP1	24	TMDS_1+
	65	GND	25	GND
	66	USB_PN0	26	TMDS_2-
	67	USB_PP0	27	TMDS_2+
	68	GND	28	GND
	69	AZ_LINEOUT_L	29	DVI_DDC_DATA
	70	AZ_LINEOUT_R	30	DVI_DDC_CLK
	71	CEC	31	DVI_HPD
	72	PB_DET	32	GND
	73	PS_ON#	33	+19V
	74	PWR_STATUS	34	+19V
	75	GND	35	+19V
	76	GND	36	+19V
	77	GND	37	+19V
	78	GND	38	+19V
	79	GND	39	+19V
	80	GND	40	+19V

Table 2 OPS Docking Pin Assignment

■ Connecting the PC or external monitor

Connect the HDMI / DVI-D / VGA cable from your PC or external monitor to the HDMI / DVI-D / VGA port.

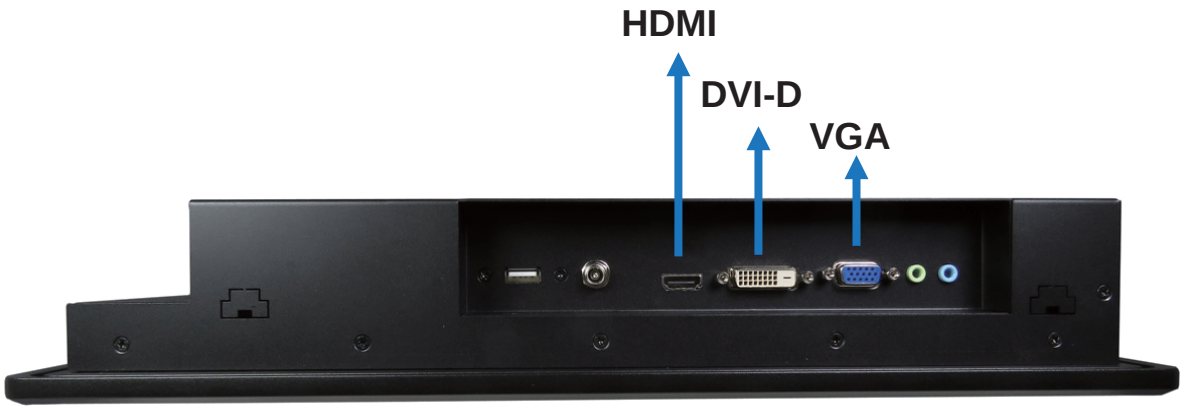


Figure 8 HDMI / DVI-D / VGA

■ Connecting touch panel

Connect the USB cable of touch panel to the USB port

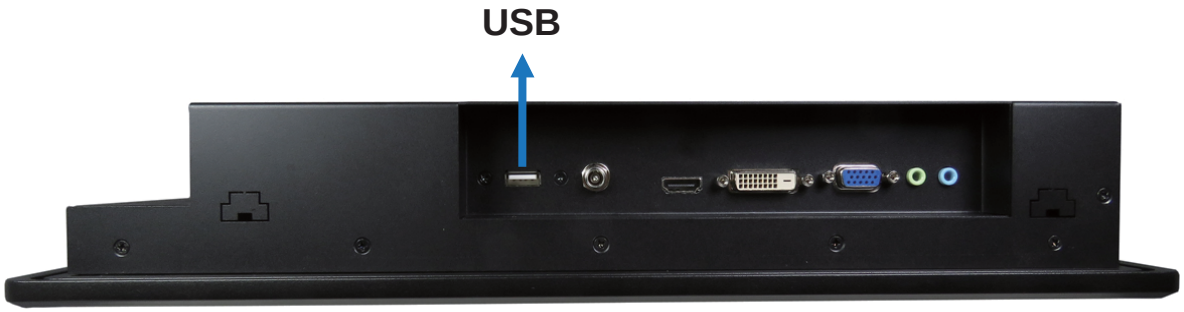


Figure 9 Connect touch panel

■ Turning on the monitor

1. Connect the power adapter cable to the DC jack (DC In) of MoniQ-1500/1700/1900
2. Connect the power cable to the power adapter
3. Connect the power cable to a power outlet
4. Press the power button on the control panel keypad (turning on your PC simultaneously if necessary or turning on the OPS module if you insert an OPS module to transform the monitor to a panel PC)

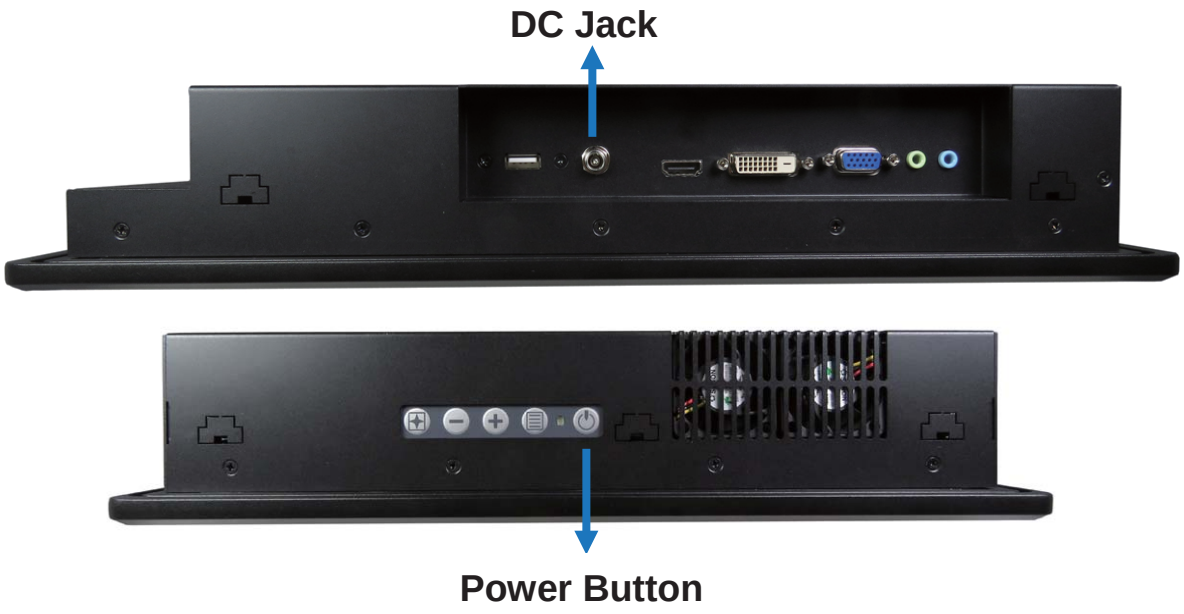


Figure 10 Turning on the system

■ VESA Mounting

The product comes with VESA FDMI 75/100 standard mounting holes as shown below. Use 4 screws with the appropriate length for your mounting bracket.

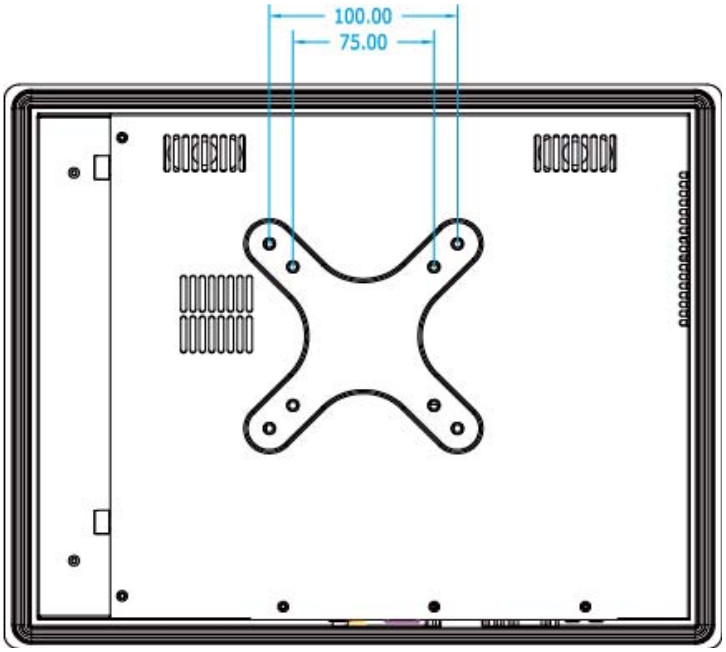


Figure 11 VESA Mounting Hole Locations

NOTE

To fasten the metal shelf, your monitor must comply with VESA75 or VESA100 standard. The VESA mounting kit is optional.

■ Panel Mounting

The Panel PC can be panel mounted and comes with brackets and screws for this purpose. The required cutout for panel mounting and maximum panel thickness is shown below.

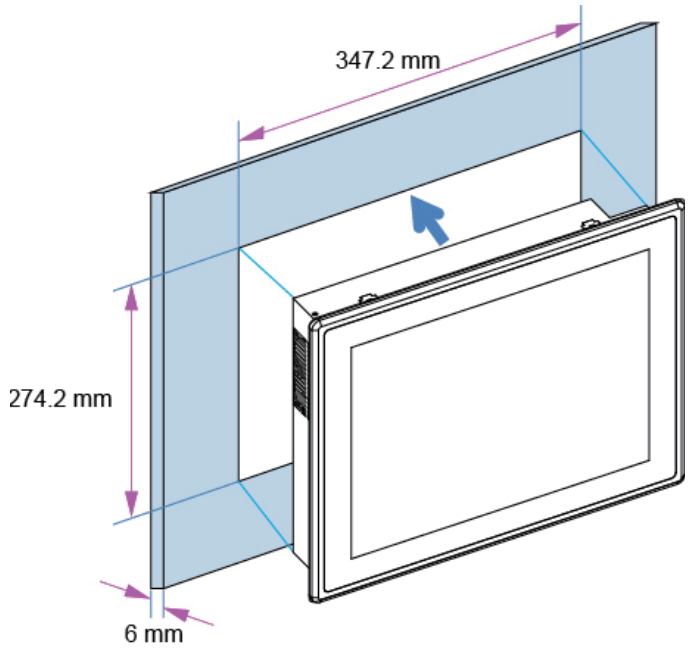


Figure 12 Panel Mount Cut-out hole and maximum panel thickness (MoniQ-1500)

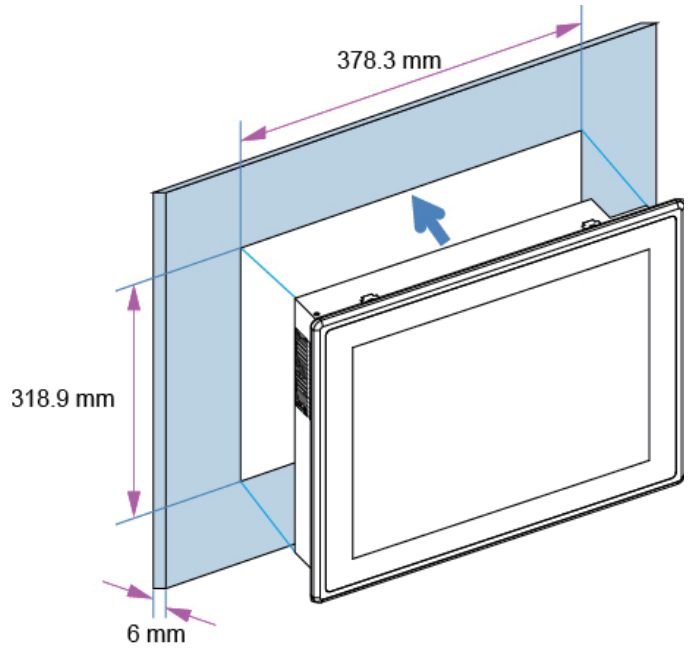


Figure 13 Panel Mount Cut-out hole and maximum panel thickness (MoniQ-1700)

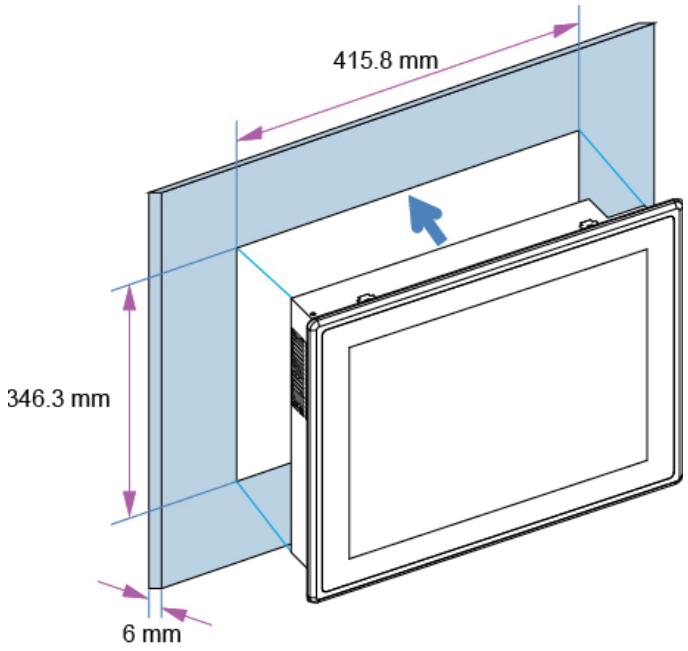
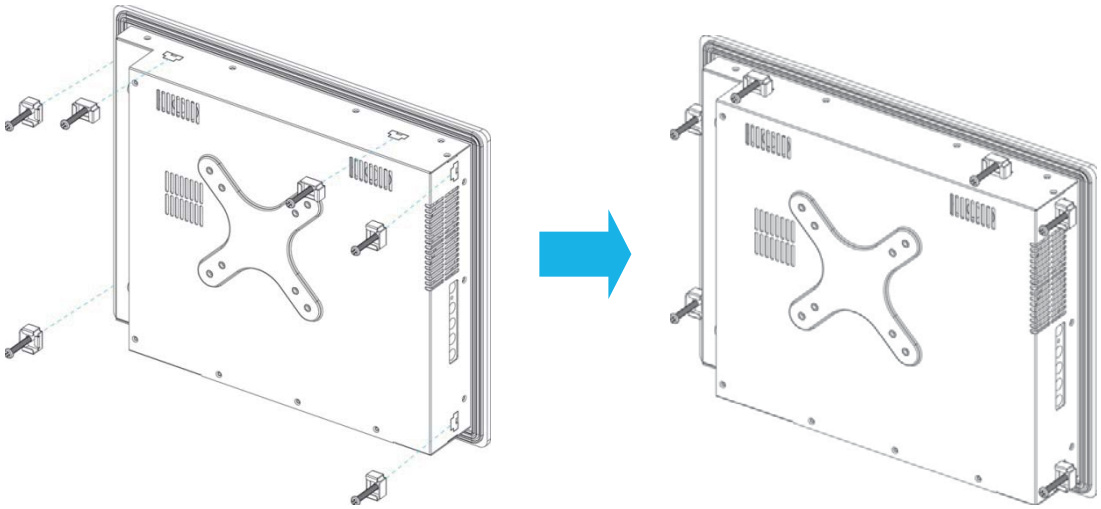


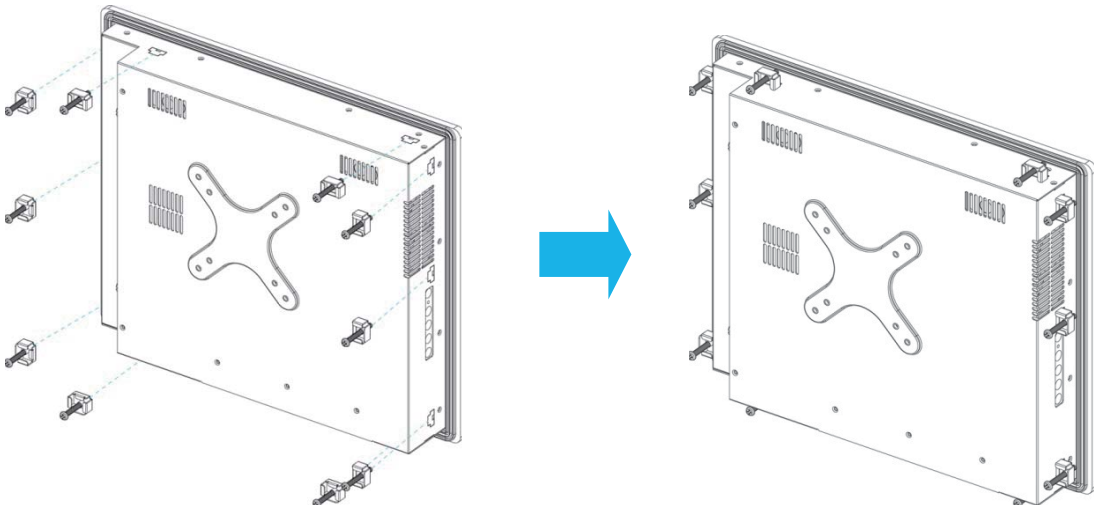
Figure 14 Panel Mount Cut-out hole and maximum panel thickness (MoniQ-1900)

Below are the demonstrations of how to do panel mounting.



Step 1	Step 2	Step 3
Remove 6 Bracket Opening Covers from Bracket Openings with Phillips Screwdriver (2 on top edge, 2 on each side)	Insert a Panel Mount Bracket into each Bracket Opening	Secure Chassis to Panel by tightening the screws

Figure 15 Panel Mounting (MoniQ-1500)



Step 1	Step 2	Step 3
Remove 10 Bracket Opening Covers from Bracket Openings with Phillips Screwdriver (2 on each top / bottom edge, 3 on each side)	Insert a Panel Mount Bracket into each Bracket Opening	Secure Chassis to Panel by tightening the screws

Figure 16 Panel Mounting (MoniQ-1700/1900)

Chapter 3

OSD Functions

■ Control Buttons

Button Name	Image	Functions
<Menu / Enter>		1. To turn on the OSD menu 2. To confirm the selection
<Up>		1. To move to the next functional icon 2. To move to the next setting item 3. To display the next setting option 4. To increase the setting
<Down>		1. To move to the previous functional icon 2. To move to the previous setting item 3. To display the previous setting option 4. To decrease the setting
<Exit>		1. To turn off the OSD menu 2. To move from a sub-menu to the main menu and save the changes made in the sub-menu

Table 3 OSD Control Button

■ Setting Instruction

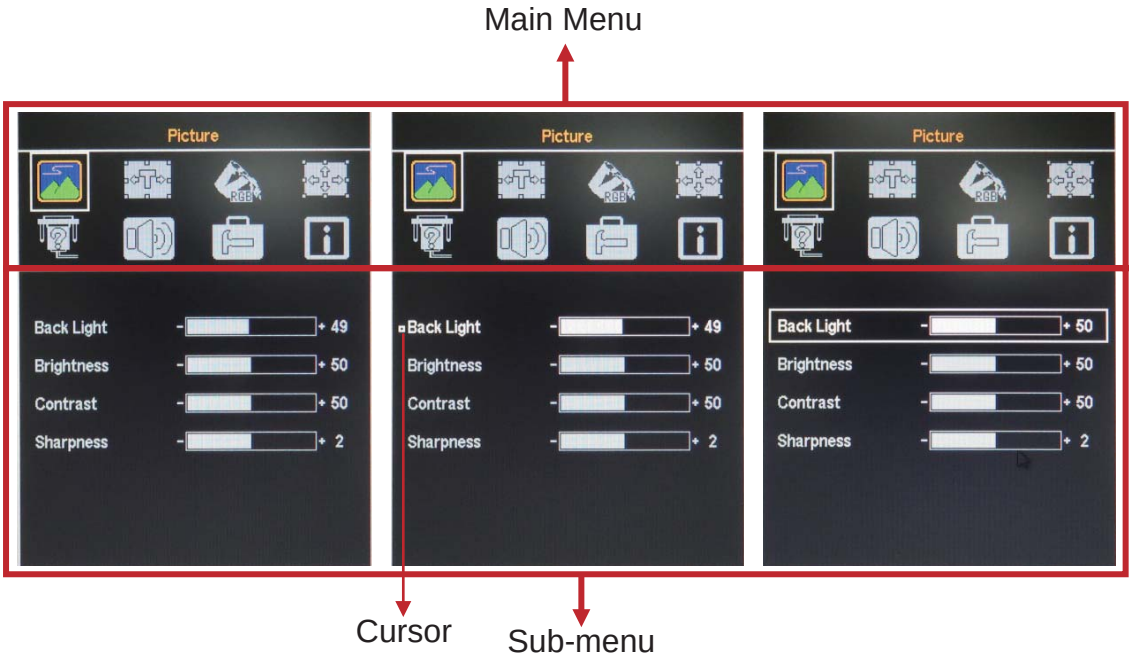


Figure 17 OSD Main Menu and Sub-menu

There are in total 8 functional icons in the main menu. One of the 8 icons will be displayed in colors to indicate the relationship with the setting items or information in the sub-menu below (as shown in the left figure above).

Use <Up> and / or <Down> button to move to the functional icon you want to operate or set and then press <Menu / Enter> button to enter the sub-menu under that functional icon. A cursor will appear in front of one of the setting items in the sub-menu when entering the sub-menu (as shown in the middle figure above).

Use <Up> and / or <Down> button to move to the setting item you want to set and then press <Menu / Enter> button to enter the setting mode. A frame will appear around the setting item when entering the setting mode. (as shown in the right figure above).

Use <Up> and / or <Down> button to display the next or previous setting option or increase or decrease the setting value and then press <Menu / Enter> or <Exit> button to confirm the selection and save the setting. The frame will disappear when the setting is complete.

■ Function Instruction

Table 4 “Picture” Menu

Picture

- **Back Light**
  Options: 0 ~ 100
- **Brightness**
  Options: 0 ~ 100
- **Contrast**
  Options: 0 ~ 100
- **Sharpness**
  Options: 0 ~ 4

Table 5 “Image Setting” Menu

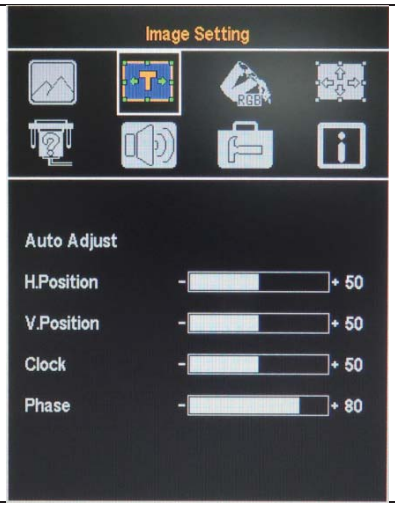
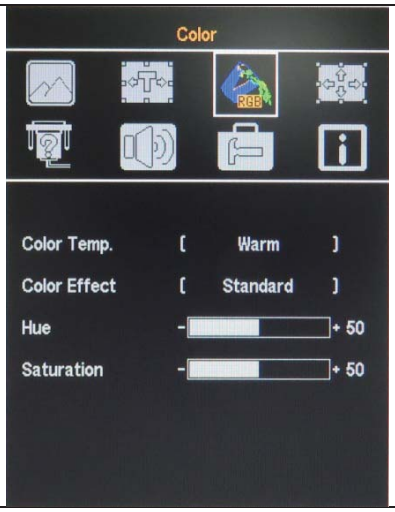


Image Setting

- **Auto Adjust**
  Options: N/A
- **H.Position**
  Options: 0 ~ 100
- **V.Position**
  Options: 0 ~ 100
- **Clock**
  Options: 0 ~ 100
- **Phrase**
  Options: 0 ~ 100

Table 6 “Color” Menu



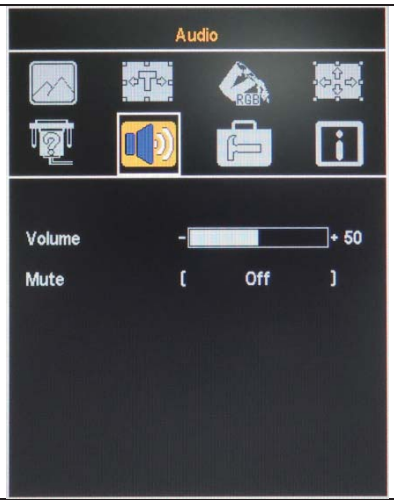
Color

- **Color Temp.**
  Options: Cool, Warm, User
- **Color Effect**
  Options: Standard, Game, Movie, Photo, Vivid, User
- **Hue**
  Options: 0 ~ 100
- **Saturation**
  Options: 0 ~ 100

Table 7 “Signal Source” Menu

Signal Source
Options: Auto Search, VGA 1, VGA 2, HDMI, DVI

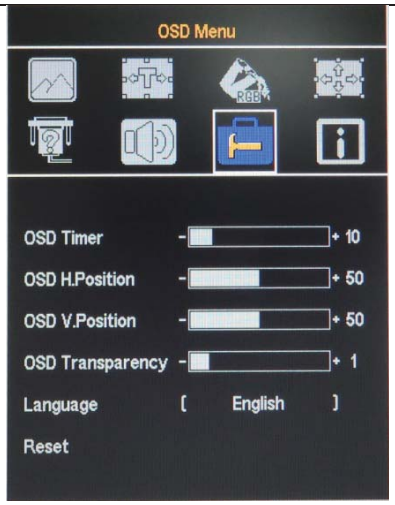
Table 8 “Audio” Menu



Audio

- **Volume**
  Options: 0 ~ 100
- **Mute**
  Options: Off, On

Table 9 “OSD Menu” Menu



OSD Menu

- **OSD Timer**
  Options: 5 ~ 60
- **OSD H.Position**
  Options: 0 ~ 100
- **OSD V.Position**
  Options: 0 ~ 100
- **OSD Transparency**
  Options: 0 ~ 7
- **Language**
  Options: English, Français (French), Deutsch (German), Español (Spanish), 中文(Chinese)
- **Reset**
  Options: N/A

Table 10 “Information” Menu

	**Information** Options: N/A

Chapter 4

Driver Installation

You can download the Touch-Screen drivers for the MoniQ-1500/1700/1900 from our website and install as instructed there.