

## ARP-2200AP-G00 Series Industrial Touch Panel Computer

*ARP-2215AP-G00*    *ARP-2217AP-G00*

*ARP-2219AP-G00*    *ARP-2221AP-G00*



# **Product safety precautions**

Read all of the instructions and save this manual for later use. Follow all warnings and instructions on the product.

- Relative humidity: 25%~80%
- Storage temperature: -20°C to 60°C(-4F to 140F)
- Operation temperature: 0~50°C(32F to 122F)
- Unplug the unit when not in use for an extended period of time.
- Consult a service technician if the unit does not operate normally when you have followed the instructions in this manual.
- Do not attempt to repair this product yourself. Always have a qualified service technician to carry out adjustments or repairs.
- Do not place heavy objects on the unit.
- Use only the power cord supplied with the unit. In the event that another power cord is used, one that is different than the one provided by the supplier, make sure that it is certified by the local and applicable national standards.
- If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.
- The power supply cord is used as the main disconnect device. Ensure that the socket outlet is easily accessible after installation.
- Overloaded AC outlets, extension cords, frayed power cords, and broken plugs are extremely dangerous. They may, and can, result in an electrical shock or fire hazard. Call an authorized service technician for any replacements.
- Hands must be dry when plugging the power cord into an AC outlet to prevent electrical shock. Do not damage the power cord by disassembling, bending, pulling or exposing it to heat as it may cause a fire or electrical shock.
- Make sure to completely insert the power plug into an AC outlet. Insecure connections can cause a fire.
- Ensure that the power source is grounded correctly.
- Unplug the unit if cleaning is needed. The unit may be wiped down with a dry or slightly damp cloth when the power is off.

***Important: Read all the contents of this instruction manual carefully before using the ARP-2200AP-G00 Series touch panel computer.***

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# Features

- Compact design, easy to use, supports hot-plug.
- Use high quality aluminum alloy casting.
- 15",17" ,19" , 21.5" color TFT LCD display, color supports up to 8 bits per color, total 16.7 million colors.
- Faster in running, lower in power consumption.
- Socket G2(rPGA988B) for Intel® Core i7/i5/i3 Celeron
- Intel® QM77 Chipset, supports SATA / SATA2/ SATA3 hard disks and RAID 0, RAID 1, Intel Rapid Storage and Intel Smart Response Technology.
- Double Data Rate (DDR) memory technology, supports up to 16GB of system memory, Supports DDR3 1600(OC)/1333/1066 non-ECC, un-buffered memory.
- Supports up to eight USB ports: 2 x USB 3.0, 4 x USB 2.0 ports, support USB 1.0/2.0/3.0 up to 5Gb/s.
- Supports Touch function for quick operation.
- Three video connectors (DVI, HDMI, DP).
- Supports up to six serial ports (COM1~COM6).
- Built-in expansion connectors: MINI-PCIE slot, the PCIE x 16 slot supports Wi-Fi function and Solid State Drives(SSD), Graphics card.
- Two Dual Gigabit RJ45 LAN ports, provides high-speed and stable network connections.
- Panel mountable for better stability.
- Strengthened protective glass(anti-reflective optional).
- Very high bright option.
- High brightness, contrast and wide viewing angles.
- Built-in lightning & surge protection.
- Super interference rejection.

## Applications

- Office electronics
- Instrumentation and measuring equipment
- Machine tools
- Audiovisual equipment
- Home appliances
- Communication equipment other than trunk lines

**Do not use the products covered herein for the following equipment that demands extremely high performance in terms of functionality, reliability, or accuracy.**

Aerospace equipment

Communication equipment for trunk lines

# Product specifications

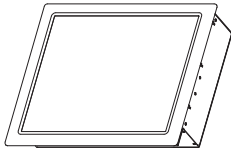
| Specifications                | ARP-2215AP-G00  | ARP-2217AP-G00  | ARP-2219AP-G00  | ARP-2221AP-G00  |
|-------------------------------|---|---|---|---|
| <b>LCD Display</b>            |   |   |   |   |
| Display Size (Diagnol)        | 15.0 inch   | 17.0 inch   | 19.0 inch   | 21.5 inch   |
| Resolution                    | 1024 x 768  | 1280 x 1024   | 1280 x 1024   | 1920 x 1080   |
| Backlight Lifetime (Hours)    | 50,000  | 50,000  | 50,000  | 50,000  |
| <b>Visual Characteristics</b> |   |   |   |   |
| Colors                        | 16.7 millions   | 16.7 millions   | 16.7 millions   | 16.7 millions   |
| Aspect ratio                  | 4:3   | 5:4   | 5:4   | 16:9  |
| Viewing angle (V/H)           | 140° / 160°   | 140° / 160°   | 160° / 170°   | 178° / 178°   |
| Response time (Typical)       | 8 ms  | 30 ms   | 5 ms  | 14 ms   |
| Pixel Pitch (mm)              | 0.264 x 0.264   | 0.264 x 0.264   | 0.294 x 0.294   | 0.248 x 0.248   |
| Contrast ratio                | 700 : 1   | 800 : 1   | 1000 : 1  | 1000 : 1  |
| Brightness                    | 300 nits  | 350 nits  | 450 nits  | 250 nits  |
| <b>Touch Screen</b>           |   |   |   |   |
| Technology                    | 5 Wire Resistive                                      | 5 Wire Resistive                                      | 5 Wire Resistive                                      | 5 Wire Resistive                                      |
| Touch rating                  | 35 million touches                                    | 35 million touches                                    | 35 million touches                                    | 35 million touches                                    |
| MTBF                          | 490,000 hours   | 490,000 hours   | 490,000 hours   | 490,000 hours   |
| Interface                     | USB   | USB   | USB   | USB   |
| Driver                        | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   |
| <b>Front Bezel</b>            |   |   |   |   |
| NEMA 4                        | Black Powder Coated                                   | Black Powder Coated                                   | Black Powder Coated                                   | Black Powder Coated                                   |
| NEMA 4x                       | Stainless Steel (Optional)                            | Stainless Steel (Optional)                            | Stainless Steel (Optional)                            | Stainless Steel (Optional)                            |
| Rack Mount Bezel              | N/A   | N/A   | N/A   | N/A   |
| <b>System</b>                 |   |   |   |   |
| CPU                           | Intel i7 mobile Processor                             | Intel i7 mobile Processor                             | Intel i7 mobile Processor                             | Intel i7 mobile Processor                             |
| Chipset                       | Intel QM77  | Intel QM77  | Intel QM77  | Intel QM77  |
| Memory                        | Up to 16GB DDR3                                       | Up to 16GB DDR3                                       | Up to 16GB DDR3                                       | Up to 16GB DDR3                                       |
| Video Controller              | Intel HD Graphics 4000                                | Intel HD Graphics 4000                                | Intel HD Graphics 4000                                | Intel HD Graphics 4000                                |
| 2nd Video Interface           | DVI, HDMI, Display Port                               | DVI, HDMI, Display Port                               | DVI, HDMI, Display Port                               | DVI, HDMI, Display Port                               |
| Storage Option                | 1 x 2.5" SATA HDD                                     | 2 x 2.5" SATA HDD                                     | 2 x 2.5" SATA HDD                                     | 2 x 2.5" SATA HDD                                     |
| Compact Flash                 | N/A   | N/A   | N/A   | N/A   |
| Keyboard / Mouse              | 1 x PS / 2 connector                                  | 1 x PS / 2 connector                                  | 1 x PS / 2 connector                                  | 1 x PS / 2 connector                                  |
| Audio                         | Line in, Line Out, Mic-In                             | Line in, Line Out, Mic-In                             | Line in, Line Out, Mic-In                             | Line in, Line Out, Mic-In                             |
| Watchdog Timer                | Programmable 1 - 255 sec                              | Programmable 1 - 255 sec                              | Programmable 1 - 255 sec                              | Programmable 1 - 255 sec                              |
| Remote Boot                   | PXE   | PXE   | PXE   | PXE   |
| Expansion Slot                | 1 x PCIe x8   | 1 x PCIe x8   | 1 x PCIe x8   | 1 x PCIe x8   |
| <b>I/O Communication</b>      |   |   |   |   |
| USB Port                      | 4 x USB 2.0, 2 x USB 3.0                              | 4 x USB 2.0, 2 x USB 3.0                              | 4 x USB 2.0, 2 x USB 3.0                              | 4 x USB 2.0, 2 x USB 3.0                              |
| Serial Port                   | 3 x (RS-232), 2 x (RS-232/422/485)                    | 3 x (RS-232), 2 x (RS-232/422/485)                    | 3 x (RS-232), 2 x (RS-232/422/485)                    | 3 x (RS-232), 2 x (RS-232/422/485)                    |
| IEEE 1394                     | N/A   | N/A   | N/A   | N/A   |
| LAN                           | Dual Gigabit LAN                                      | Dual Gigabit LAN                                      | Dual Gigabit LAN                                      | Dual Gigabit LAN                                      |
| Parallel                      | N/A   | N/A   | N/A   | N/A   |
| GPIO                          | N/A   | N/A   | N/A   | N/A   |
| <b>Smart Battery</b>          |   |   |   |   |
| External Smart Battery        | N/A   | N/A   | N/A   | N/A   |
| <b>OS Support</b>             |   |   |   |   |
| OS Support                    | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   | WinXP Pro, Win7 Pro, Win Embedded 7                   |
| <b>Power / Thermal Specs</b>  |   |   |   |   |
| Power Requirement (Max)       | 24VDC / 3.54A   | 24VDC / 3.04A   | 24VDC / 3.18A   | 24VDC / 3.96A   |
| Power Consumption (Max)       | 85W   | 73W   | 77W   | 95W   |
| Recommended Power Supply      | 122W  | 105W  | 109W  | 136W  |
| Heat Dissipation              | 290 BTU/hr  | 250 BTU/hr  | 261 BTU/hr  | 325 BTU/hr  |
| <b>Physical Information</b>   |   |   |   |   |
| Mounting                      | Panel Mount   | Panel Mount   | Panel Mount   | Panel Mount   |
| Net Weight                    | 19 Lbs / 8 Kg   | 21 Lbs / 9 Kg   | 25 Lbs / 11 Kg  |   |
| Physical Dimension            | 14.51 x 11.80 x 5.51 inch<br>368.6 x 299.8 x 140.0 mm | 15.88 x 13.34 x 5.71 inch<br>403.4 x 338.8 x 144.9 mm | 17.80 x 14.60 x 5.71 inch<br>452.1 x 370.8 x 145.0 mm | 20.98 x 12.99 x 5.78 inch<br>533.0 x 330.0 x 146.7 mm |
| Cutout Dimension (WxH)        | 13.75 x 11.10 inch<br>349.3 x 281.9 mm                | 15.07 x 12.51 inch<br>382.8 x 317.8 mm                | 16.98 x 13.78 inch<br>431.3 x 350.0 mm                | 19.92 x 12.35 inch<br>506.0 x 313.7 mm                |
| <b>Environmental</b>          |   |   |   |   |
| Operating Temperature         | 0~50°C (32~122°F)                                     | 0~50°C (32~122°F)                                     | 0~50°C (32~122°F)                                     | 0~50°C (32~122°F)                                     |
| Storage Temperature           | -20~60°C (-4~140°F)                                   | -20~60°C (-4~140°F)                                   | -20~60°C (-4~140°F)                                   | -20~60°C (-4~140°F)                                   |
| Relative Humidity             | 0~95%   | 0~95%   | 0~95%   | 0~95%   |
| IP/MENA Rating                | Bezel meets NEMA 4/4X requirement                     | Bezel meets NEMA 4/4X requirement                     | Bezel meets NEMA 4/4X requirement                     | Bezel meets NEMA 4/4X requirement                     |
| Certification                 | UL 508, UL Class I Division II                        | UL 508, UL Class I Division II                        | UL 508, UL Class I Division II                        | UL 508, UL Class I Division II                        |

## Ordering information

| Ordering Information |                       |                       |
|----------------------|-----------------------|-----------------------|
|                      | ARP-22XXAP-G00-011-DR | ARP-22XXAP-G00-015-DR |
| LCD Display          | Standard              | Standard              |
| Touch Screen         | 5-Wire                | 5-Wire                |
| Bezel                | Black Powder Coated   | Stainless Steel       |
| CPU                  | i7 Mobile             | i7 Mobile             |
| Memory               | 16GB DDR3             | 16GB DDR3             |
| Storage              | 2.5" SATA HDD         | 2.5" SATA HDD         |
| ACP Enabled          | N/A                   | N/A                   |
| Power Supply         | 110/220VAC Input      | 110/220VAC Input      |
|                      | ARP-22XXAP-G00-031-DR | ARP-22XXAP-G00-035-DR |
| LCD Display          | Standard              | Standard              |
| Touch Screen         | 5-Wire                | 5-Wire                |
| Bezel                | Black Powder Coated   | Stainless Steel       |
| CPU                  | i7 Mobile             | i7 Mobile             |
| Memory               | 16GB DDR3             | 16GB DDR3             |
| Storage              | 2.5" SATA SSD         | 2.5" SATA SSD         |
| ACP Enabled          | N/A                   | N/A                   |
| Power Supply         | 110/220VAC Input      | 110/220VAC Input      |

## Unpacking

The unit is shipped with items listed below, inspect them carefully to make sure there is no damage and all the items are available with your shipment.



ARP-2200AP-G00 Series touch panel computer x1



DIN-Rail AC/DC power supply x1



AC power cable x1



DC power cable x1

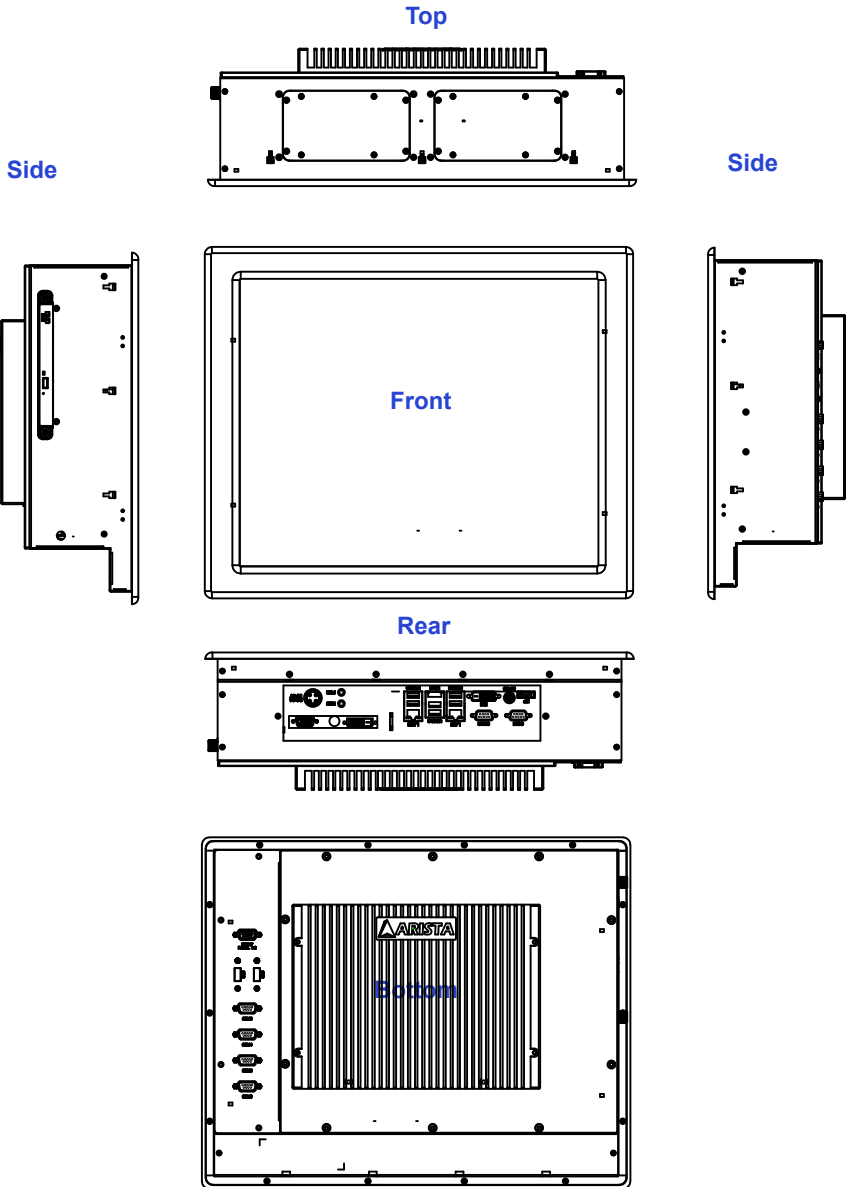


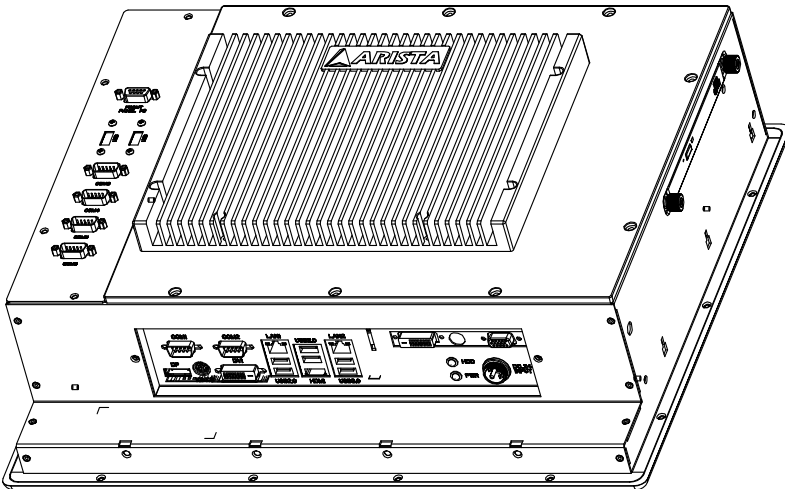
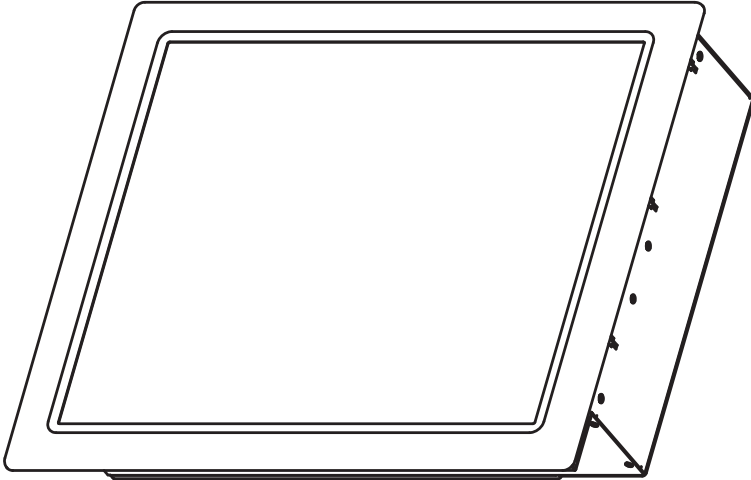
Mounting bolts and screws

# Chapter 2 Basics

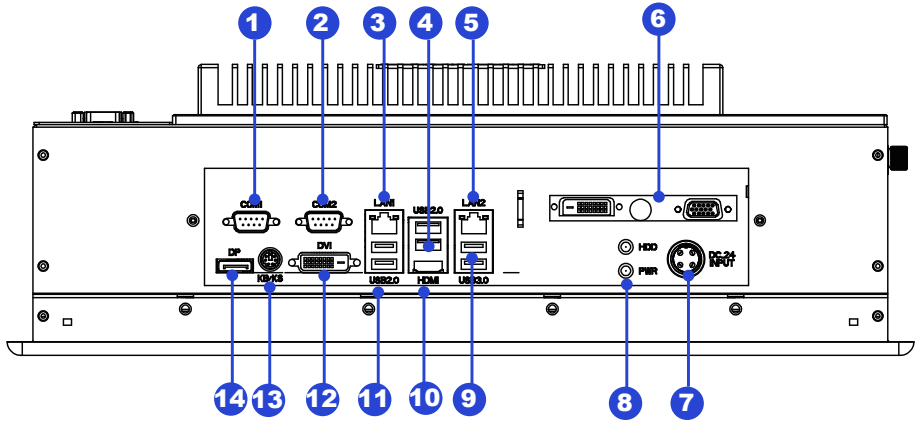
## Product overview

### ARP-2200AP-G00 Series Touch Panel Computer







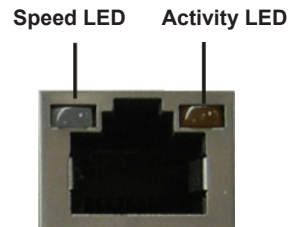


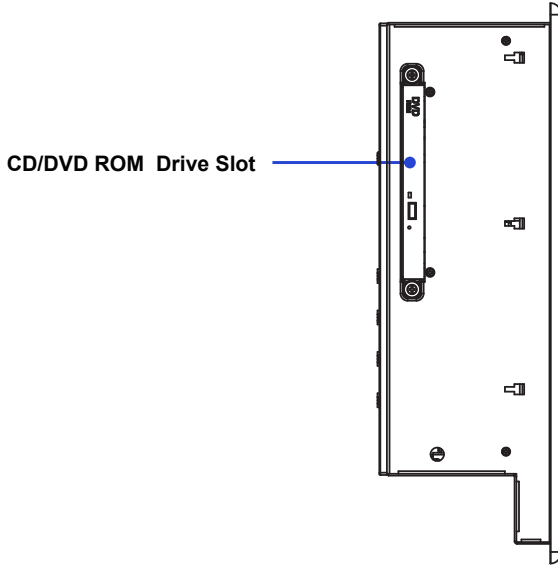
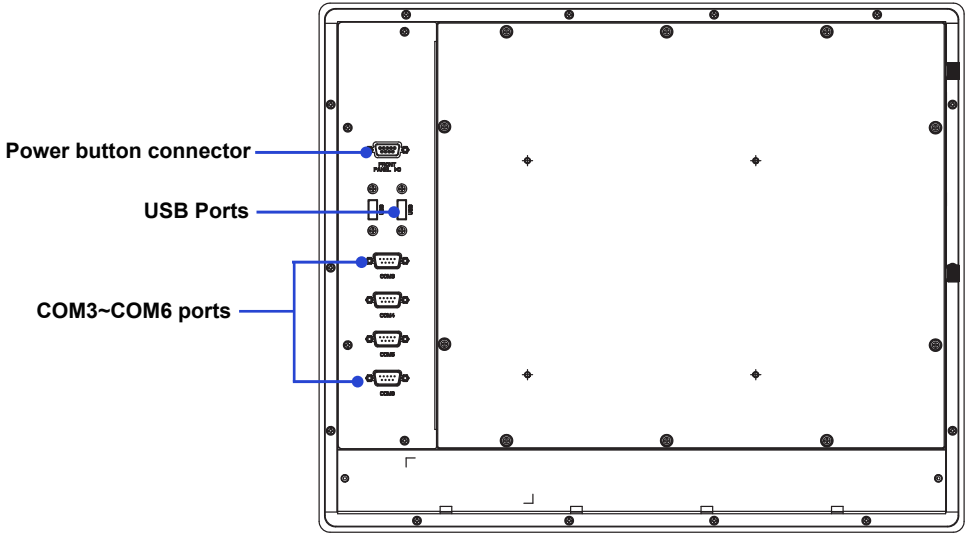
- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1. COM1 port                    | 8. HDD/Power indicator           |
| 2. COM2 port                    | 9. USB3.0 ports                  |
| 3. RJ45 LAN Port(LAN1)          | 10. HDMI Port                    |
| 4. USB2.0 ports                 | 11. USB2.0 ports                 |
| 5. RJ45 LAN Port (LAN2)         | 12. DVI connector                |
| 6. DVI port, COM port(Optional) | 13. PS2 keyboard/mouse connector |
| 7. 24V DC power input connector | 14. Display port                 |

**PWR LED: Power LED indicator** -The LED lights up when you turn on the system, and be off when the system is in standby mode.

**HDD LED: Hard Disk Activity LED indicator**-The read or write activities of the hard disk cause the LED to light up.

| LED Indications on the LAN port |        |  |
|---------------------------------|--------|--|
|                                 | Status | Description                              |
| Activity LED                    | Off    | No network connection                    |
|                                 | On     | Data transmission activity               |
| Speed LED                       | Off    | Data transmission at the rate of 10Mbps  |
|                                 | Orange | Data transmission at the rate of 1Gbps   |
|                                 | Green  | Data transmission at the rate of 100Mbps |

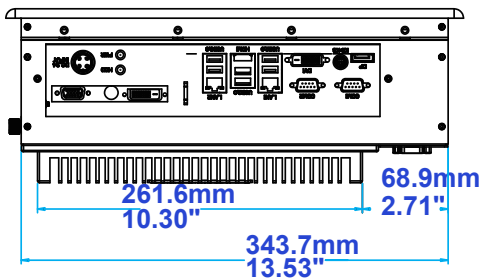
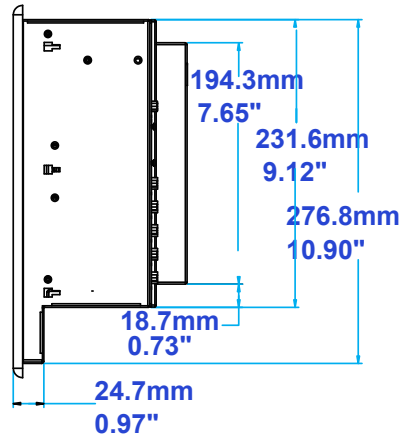
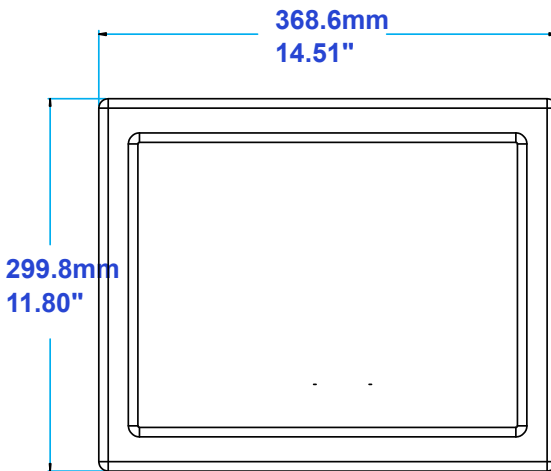
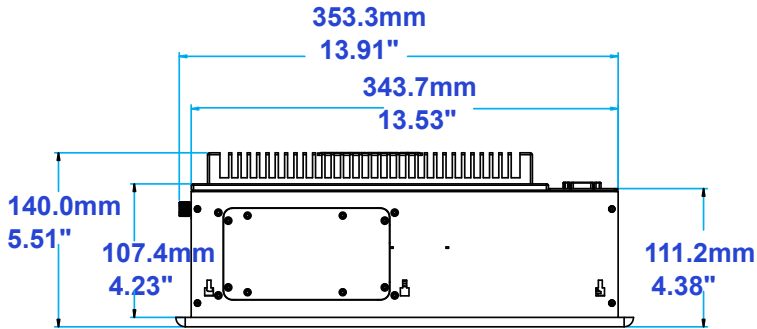




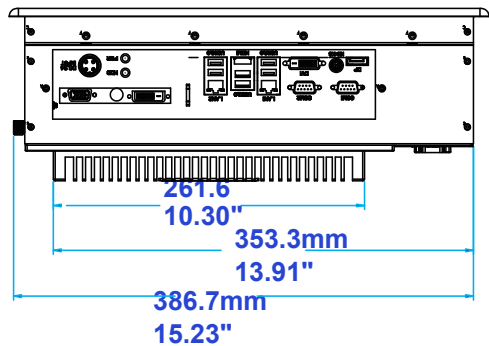
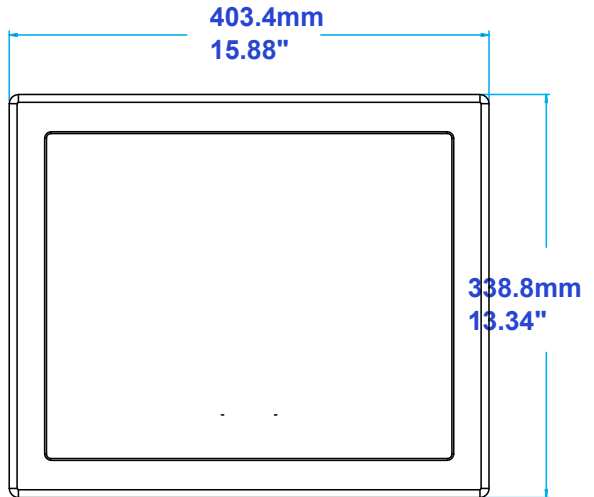
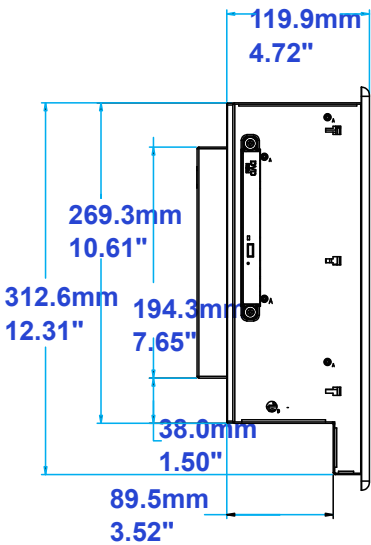
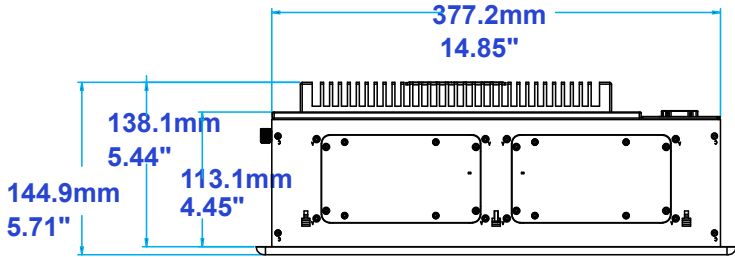
# Physical dimension

The diagrams below show the physical and specific dimensions of the ARP-2200AP-G00 Series touch panel computer.

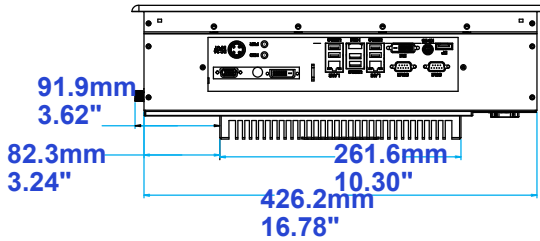
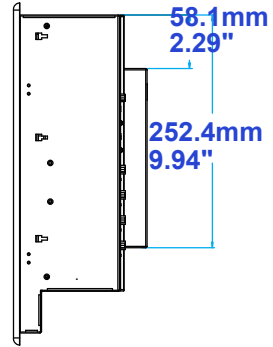
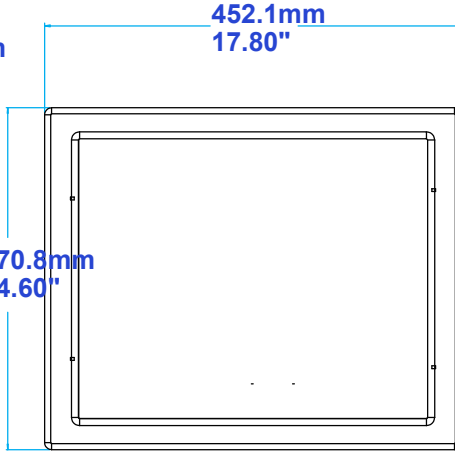
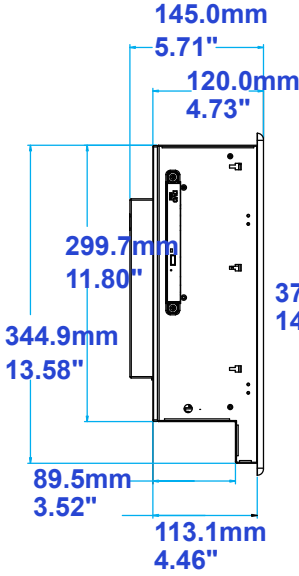
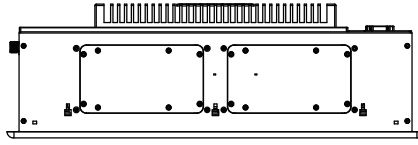
## For ARP-2215AP-G00



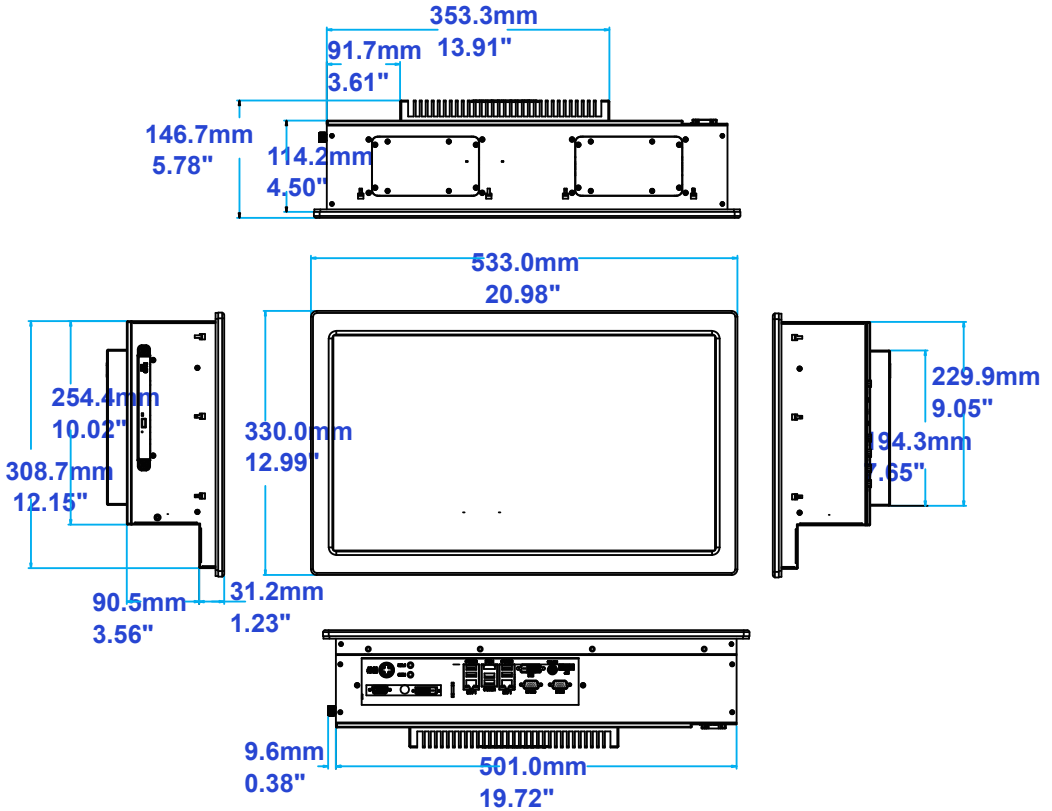
# For ARP-2217AP-G00



# For ARP-2219AP-G00



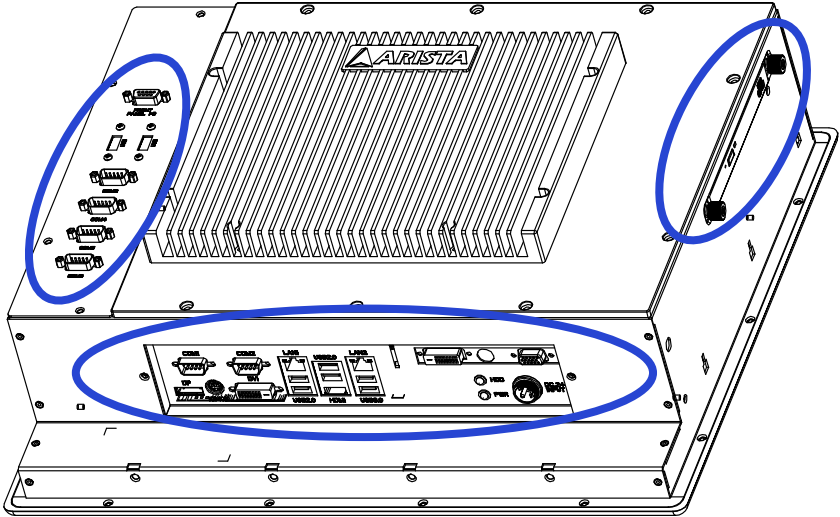
## For ARP-2221AP-G00



|                       | L(Overall Length) | W(Overall Width) | H(Overall Height) | Cutout Size                            |
|-----------------------|-------------------|------------------|-------------------|--|
| <b>ARP-2215AP-G00</b> | 14.51"/368.6mm    | 11.80"/299.8mm   | 5.51"/140.0mm     | 13.75 x 11.10 inch<br>349.3 x 281.9 mm |
| <b>ARP-2217AP-G00</b> | 15.88"/403.4mm    | 13.34"/338.8mm   | 5.71"/144.9mm     | 15.07 x 12.51 inch<br>382.8 x 317.8 mm |
| <b>ARP-2219AP-G00</b> | 17.80"/452.1mm    | 14.60"/370.8mm   | 5.71"/145.0mm     | 16.98 x 13.78 inch<br>431.3 x 350.0 mm |
| <b>ARP-2221AP-G00</b> | 20.98"/533.0mm    | 12.99"/330.0mm   | 5.78"/146.7mm     | 19.92 x 12.35 inch<br>506.0 x 313.7 mm |

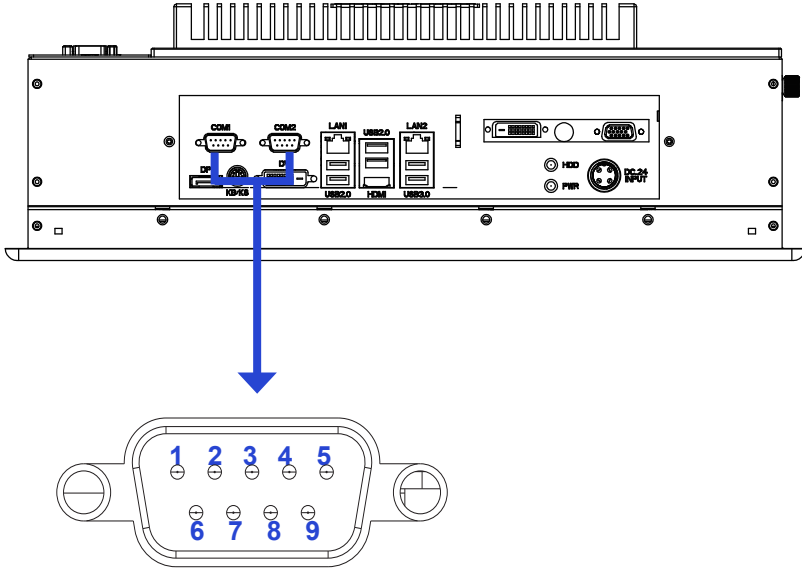
# Chapter 3 Connections

This section describes the connections/connectors available on the ARP-2200AP-G00 Series touch panel computer.



Connectors are located at the bottom of ARP-2200AP-G00 Series touch panel computer.

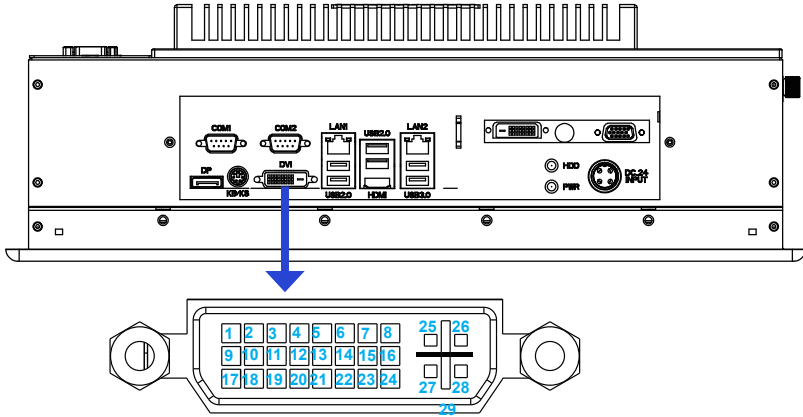
## Pins in the serial port (COM1/COM2)



| Pin NO. | RS-232 mode  | RS-422 mode  | RS-485 mode  |
|---------|--------------|--------------|--------------|
| 1       | DCD          | TX-          | RTX-         |
| 2       | RXD          | RX+          | N/A          |
| 3       | TXD          | TX+          | RTX+         |
| 4       | DTR          | RX-          | N/A          |
| 5       | GND          | GND          | GND          |
| 6       | DSR          | N/A          | N/A          |
| 7       | RTS          | N/A          | N/A          |
| 8       | CTS          | N/A          | N/A          |
| 9       | +5V/+12V/RI# | +5V/+12V/RI# | +5V/+12V/RI# |

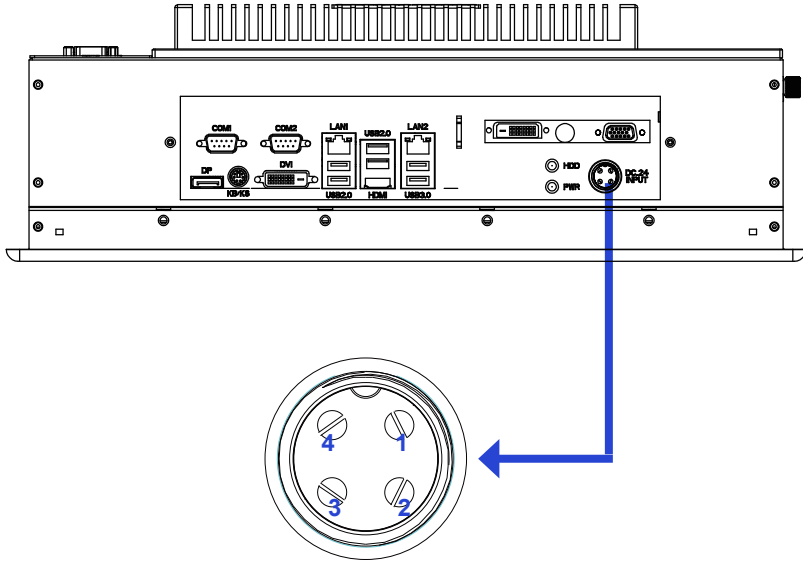


## Pins in the DVI port



| Pin NO. | Pin Assignment | Description           |
|---------|----------------|-----------------------|
| 1       | RXD2-          | T.M.D.S Data 2-       |
| 2       | RXD2+          | T.M.D.S Data 2+       |
| 3       | GND            | T.M.D.S Data 2 Shield |
| 4       | NC             | No connection         |
| 5       | NC             | No connection         |
| 6       | SCL            | DDC clock             |
| 7       | SDA            | DDC data              |
| 8       | NC             | No connection         |
| 9       | RXD1-          | T.M.D.S Data 1-       |
| 10      | RXD1+          | T.M.D.S Data 1+       |
| 11      | GND            | T.M.D.S Data 1 Shield |
| 12      | NC             | No connection         |
| 13      | NC             | No connection         |
| 14      | DVIVCC         | + 5V power input      |
| 15      | GND            | Ground                |
| 16      | HPD            | Hot plug detect       |
| 17      | RXD0-          | T.M.D.S Data 0-       |
| 18      | RXD0+          | T.M.D.S Data 0+       |
| 19      | GND            | T.M.D.S Data 0 Shield |
| 20      | NC             | No connection         |
| 21      | NC             | No connection         |
| 22      | GND            | T.M.D.S Clock Shield  |
| 23      | RXDC+          | T.M.D.S Clock +       |
| 24      | RXDC-          | T.M.D.S Clock -       |
| 25      | NC             | No connection         |
| 26      | NC             | No connection         |
| 27      | NC             | No connection         |
| 28      | NC             | No connection         |
| 29      | NC             | No connection         |

## Pins in the DC-IN power connector



| Pin NO. | Definition |
|---------|------------|
| 1       | GND        |
| 2       | 24V        |
| 3       | GND        |
| 4       | 24V        |

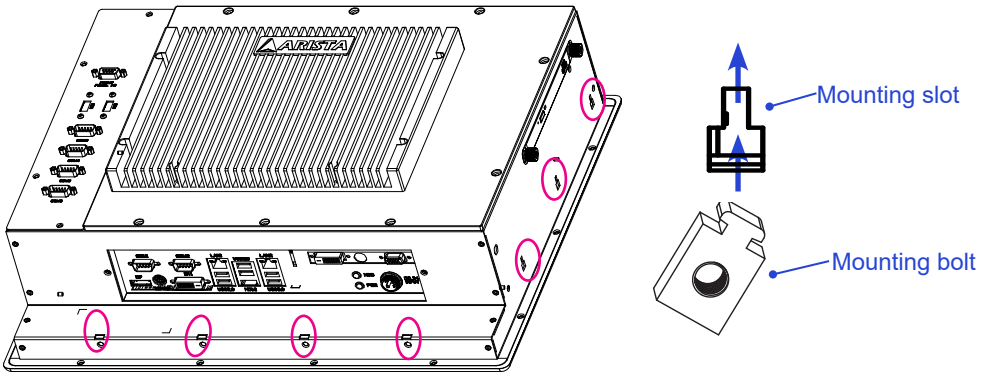
# Mounting the computer

## Panel mounting

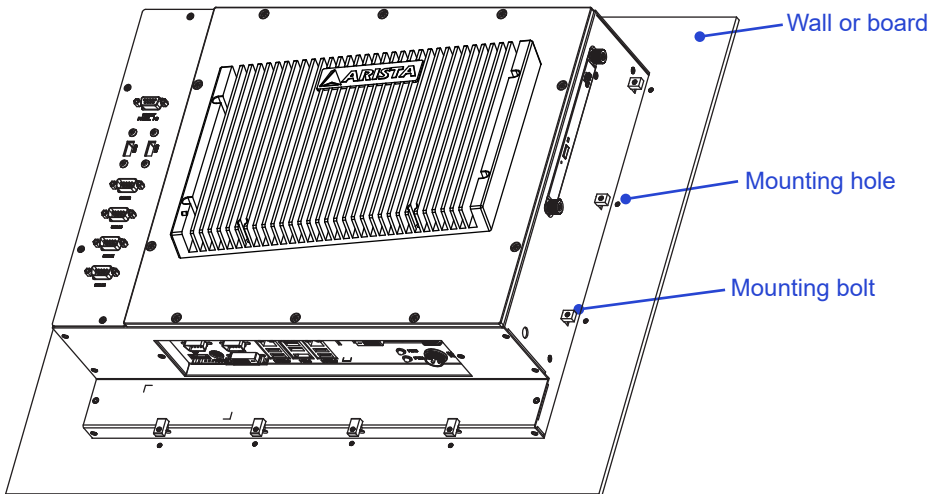
The ARP-2200AP-G00 Series touch panel computer can be placed on a shelf, table, or mounted onto a wall or board. To mount it onto a wall or board, you will require the mounting bolts and screws found in the accessory box.

**Please follow the steps shown in the diagram below:**

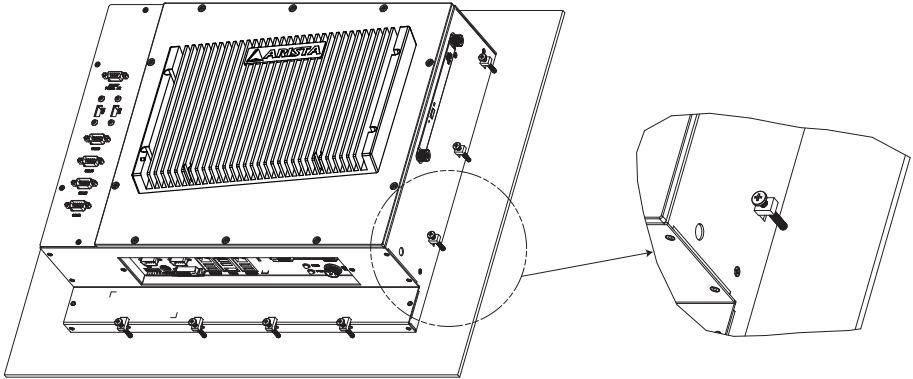
**Step1.** There are mounting slots located on the four sides of the ARP-2200AP-G00 Series touch panel computer. As shown in the figure below, put and slide the supplied mounting bolts into the mounting slots.



**Step2.** Situate the bottom cover of ARP-2200AP-G00 Series touch panel computer within the place on a board or a wall where the mounting holes are pre-drilled. Turn to the back of the unit and the wall, align the mounting bolts installed on the four sides of ARP-2200AP-G00 Series touch panel computer with the mounting holes on the wall or board.



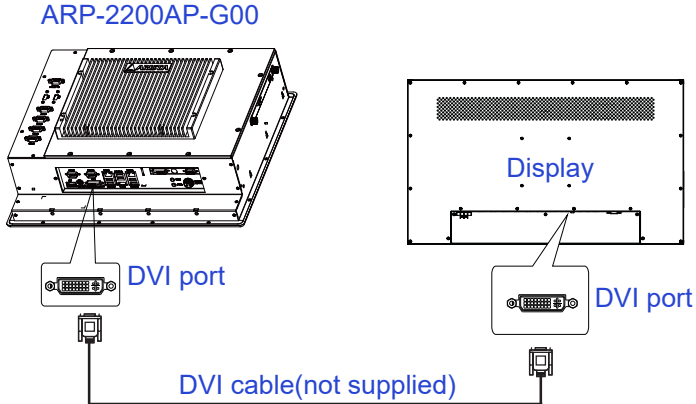
**Step3.** Tighten the "M4" sized mounting screws into the wall and board through the mounting bolts and mounting holes and make sure the ARP-2200AP-G00 Series touch panel computer is correctly and securely seated onto the board or wall.



# Connecting to a display

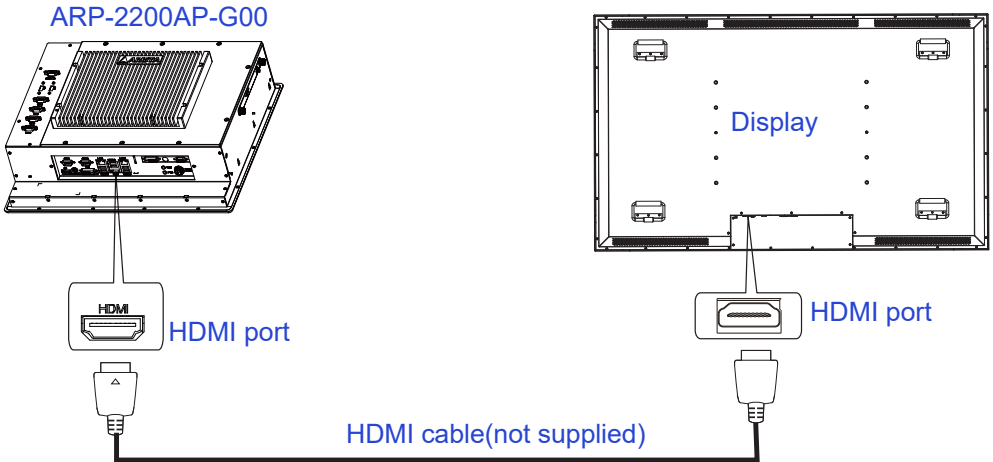
## 1. Connecting to a display through DVI port

- Connect one end of the DVI cable to the DVI port of the ARP-2200AP-G00 Series touch panel computer. Connect the other end of the DVI cable to the DVI port of a display.



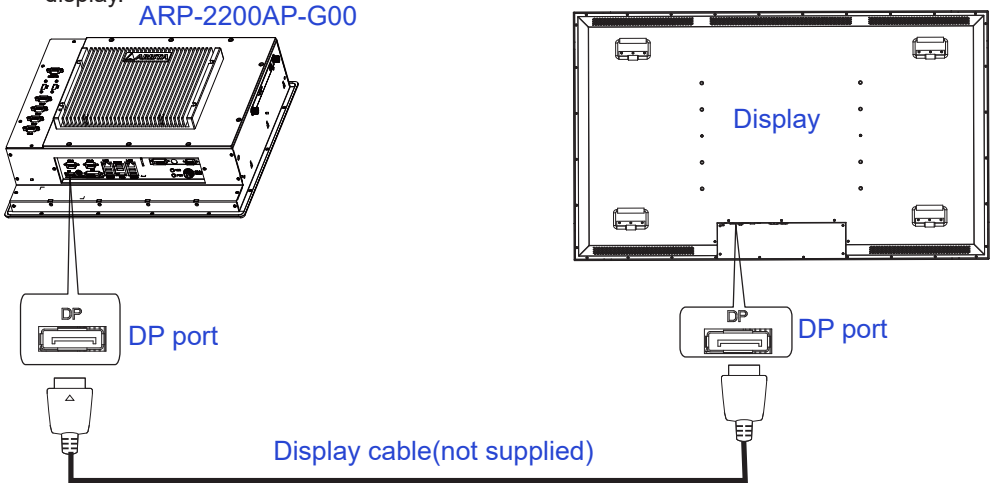
## 2. Connecting to a display through HDMI port

- Connect one end of the HDMI to the HDMI port of the ARP-2200AP-G00 Series touch panel computer. Connect the other end of the HDMI to the HDMI port of a display.



### 3. Connecting to a display through Display port

- Connect one end of the display cable to the DP port of the ARP-2200AP-G00 Series touch panel computer. Connect the other end of the display cable to the DP port of a display.



### Connecting to keyboard and mouse

- Insert a USB keyboard and a USB mouse(not supplied) to ARP-2200AP-G00 Series touch panel computer for controlling on the computer(Figure 1). You can also insert a PS2 type keyboard or a PS2 type mouse(not supplied) to your computer(Figure 2).

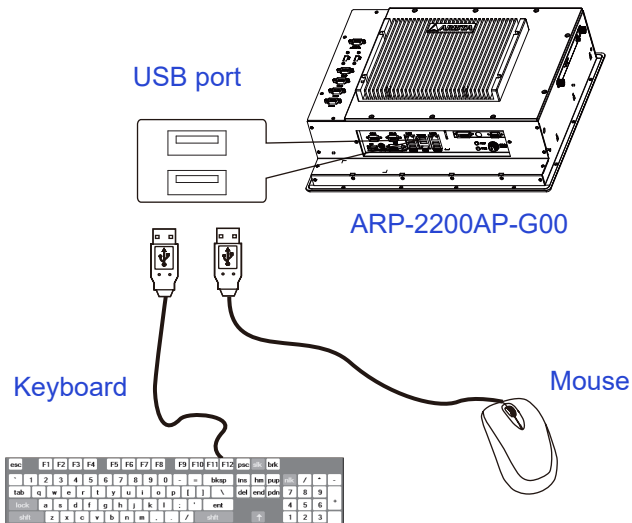


Figure 1

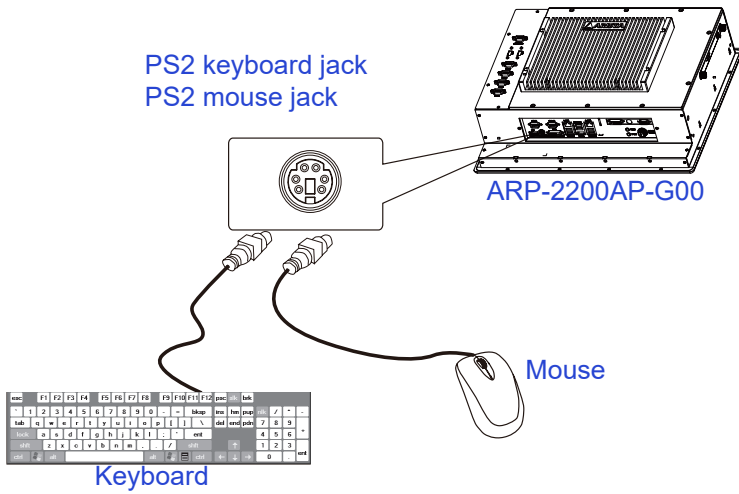
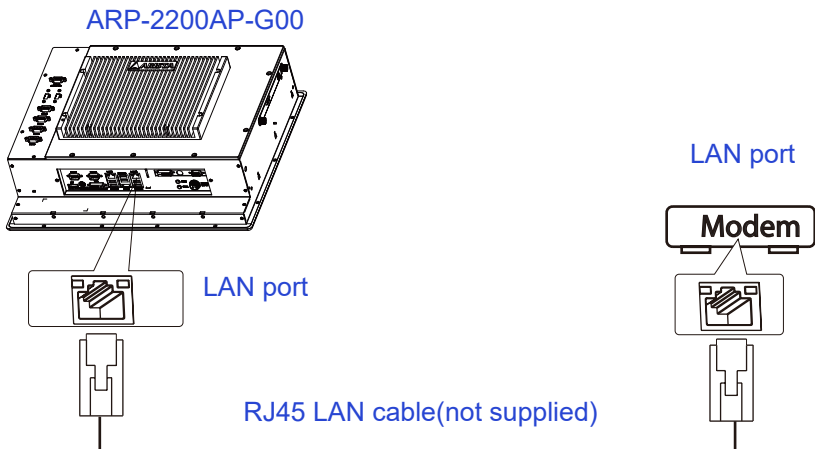


Figure 2

## Connecting to network

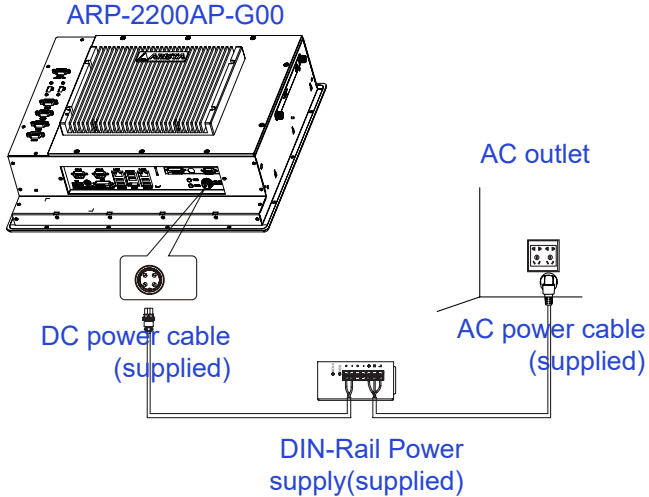
- Connect one end of the RJ45 LAN cable to the LAN port of the ARP-2200AP-G00 Series touch panel computer. Connect the other end of the RJ45 LAN cable to the LAN port of a modem.



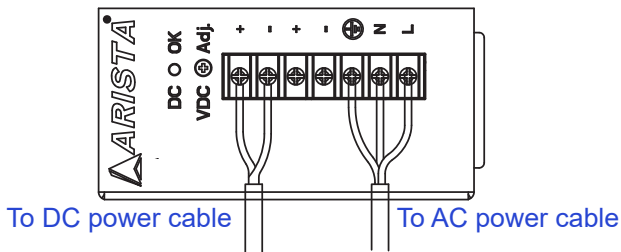
## Connecting the power supply

Follow the steps below to connect the power supply.

- Connect one end of the 150W DIN-Rail AC/DC power supply to the DC-in(24V) power connector of the ARP-2200AP-G00 Series touch panel computer. Connect the other end of 150W DIN-Rail AC/DC power supply to an AC outlet.

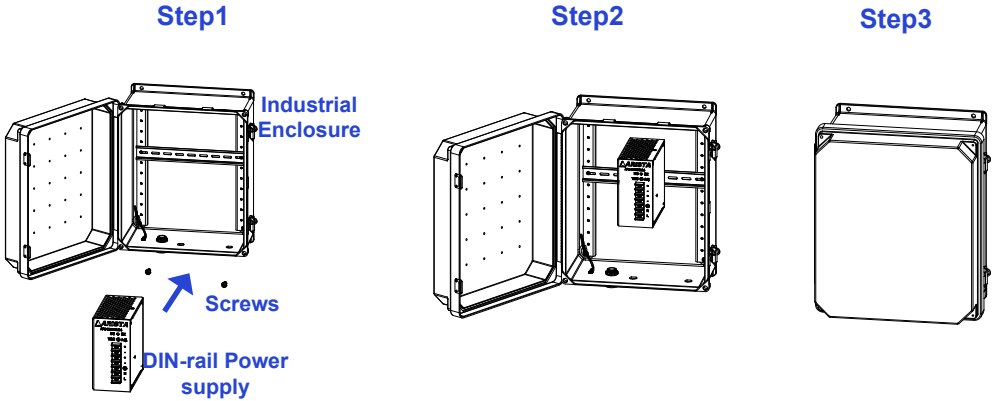


**Important:** Before you use the power supply, please correctly and securely connect the supplied AC power cable to the terminal of "L"(for live wire), "N"(for neutral wire) and "⊕"(Ground) on the power supply, and connect the supplied DC power cable to the "+"(Power) and "-"(Ground) terminals.



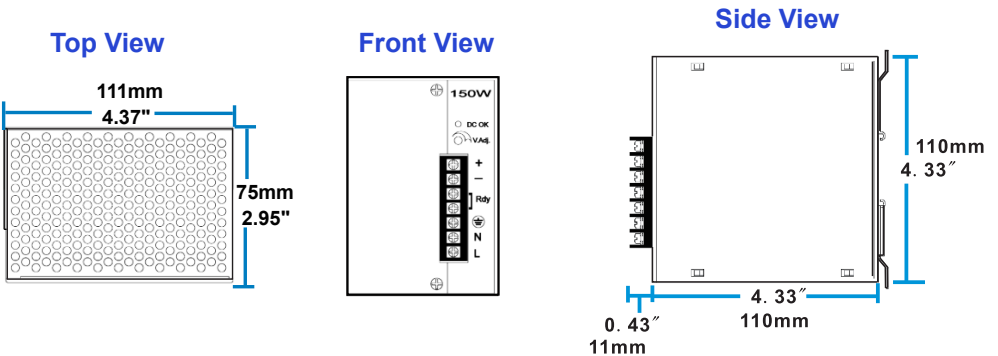


The AC to DC 24V power supply provided with the ARP-2200AP-G00 Series touch panel computer does not have environmental protection. In order to meet a degree of protection, the power supply has to be installed in a specific IP rating enclosure.



In order to correctly install the power supply, the specific dimensions for the power supply are indicated in the diagram below.

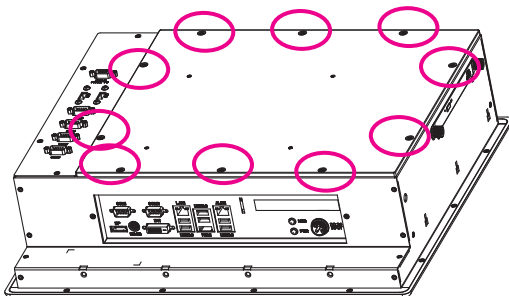
**150W DIN-rail power supply**



## Installing memory module/expansion card

Before you install the memory module or expansion card, please follow the instructions below to open the bottom cover of the ARP-2200AP-G00 Series touch panel computer.

1. As shown in the figure below, remove the screws on the sides of the bottom cover.



2. Then remove the bottom cover of the ARP-2200AP-G00 Series touch panel computer, you will find the DDR3 SO-DIMM slot, MINI\_PCIE slot and PCIE x 16 slot in the motherboard.

**The ARP-2200AP-G00 Series touch panel computer comes with the IMB-170 motherboard, and the DDR3 SO-DIMM slot, MINI-PCIE slot and PCIE x16 slot are built on the motherboard, so user can refer to the steps outlined in the User Manual for IMB-170 motherboard to install the memory module and expansion card.**

### Installing the memory module

This motherboard provides two 204-pin DDR3 (Double Data Rate 3) SO DIMM slots, and supports Dual Channel Memory Technology. For dual channel configuration, you always need to install identical (the same brand, speed, size and chip-type) DDR3 DIMM pairs.

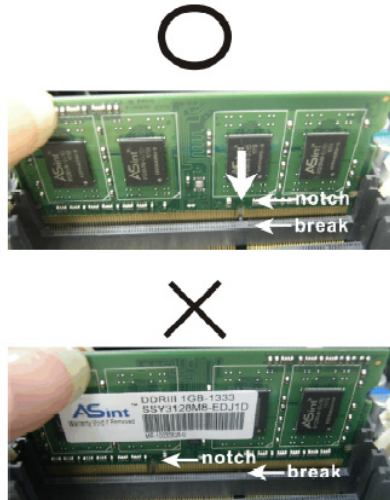
#### **NOTES:**

1. It is unable to activate Dual Channel Memory Technology with only one memory module installed.

2. It is not allowed to install a DDR or DDR2 memory module into a DDR3 slot; otherwise, this motherboard and DIMM may be damaged.

**Step 1.** Unlock a DIMM slot by pressing the retaining clips outward.

**Step 2.** Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



**Note**

The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation.

**Step 3.** Firmly insert the DIMM into the slot until the retaining clips at both ends fully snap back in place and the DIMM is properly seated.

## Installing expansion card

The MINI-PCIE slot supports PCIE cards such as a Wi-Fi LAN card, mSATA SSD, SCSI card, USB card, and other cards that comply with PCIE specifications. PCIE x16 slot is used for PCI Express x16 lane width graphics cards.

**Step 1.** Before installing the expansion card, please make sure that the power supply is switched off and the power cord is unplugged.

Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.

**Step 2.** Remove the system unit cover (if the motherboard is already installed in a chassis).

**Step 3.** Remove the bracket facing the slot that you intend to use. Keep the screws for later use.

**Step 4.** Align the card connector with the slot and press firmly until the card is completely seated on the slot.

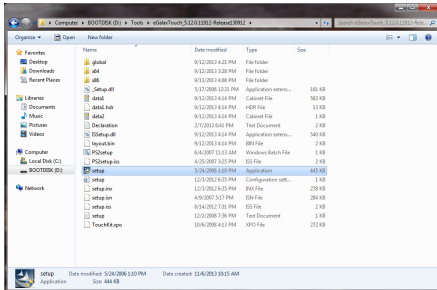
**Step 5.** Fasten the card to the chassis with screws.

# Adjustment on touch screen

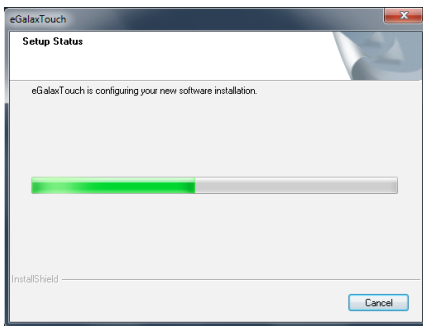
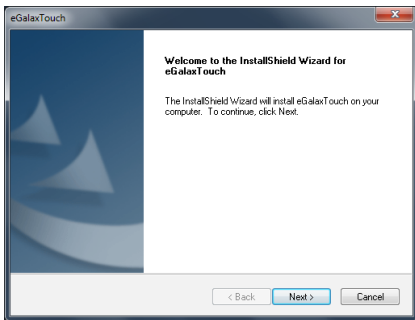
## Installing calibration software

Install the calibration software follow the several steps as below:

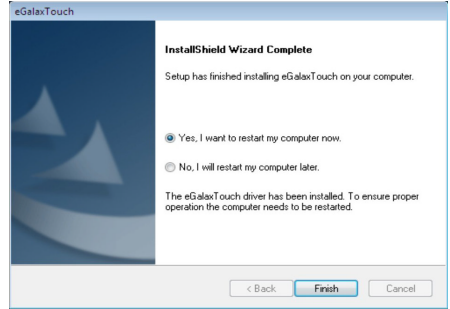
1. Double click the “setup” to start to install the calibration software.



2. Click “next” to continue, and go ahead following the dialog window.



3. Restart the computer to finish the installing.

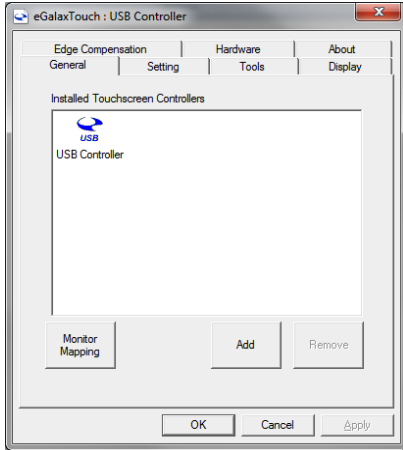


4. Now the shortcuts of “USB Controller” can be found on the desktop.

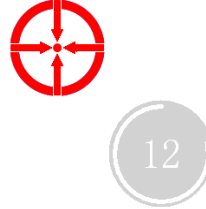


## Video alignment or calibration

1. If the mouse cursor doesn't appear at the position of touch, double click the "USB Controller" on the desktop to open the USB controller window as below:

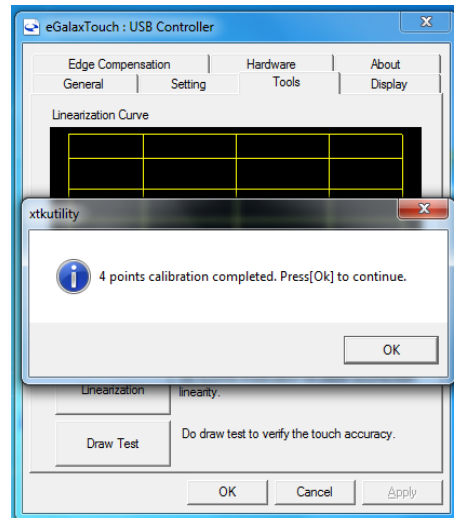
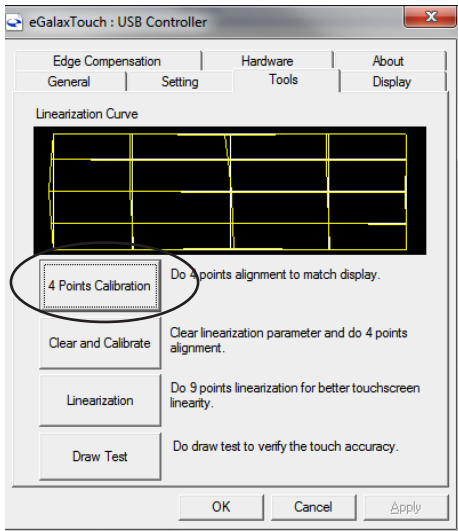


3. Use the point of something such as the pen to calibrate the four points of the display.



2. Select the "Tools" of the "eGalaxTouch" screen, and click the "4 Points Calibration", then click "OK" for video calibration.

4. Once calibrated, the touchscreen will be ready to use automatically each time the system is restarted.



# Chapter 4 BIOS Setup

## Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. The UEFI chip on the motherboard stores the UEFI SETUP UTILITY. You may run the UEFI SETUP UTILITY when you start up the computer. Please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter the UEFI SETUP UTILITY, otherwise, POST will continue with its test routines.

If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.

Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

### UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

|                    |   |
|--------------------|---|
| <b>Main</b>        | For setting system time/date information          |
| <b>Advanced</b>    | For advanced system configurations                |
| <b>H/W Monitor</b> | Displays current hardware status                  |
| <b>Boot</b>        | For configuring boot settings and boot priority   |
| <b>Security</b>    | For security settings                             |
| <b>Exit</b>        | Exit the current screen or the UEFI Setup Utility |

## Navigation Keys

Use < → > key or < ← > key to choose among the selections on the menu bar, and use < ↑ > key or < ↓ > key to move the cursor up or down to select items, then press <Enter> to get into the sub screen.

You can also use the mouse to click your required item.

Please check the following table for the descriptions of each navigation key.

| <b>Navigation Key(s)</b> | <b>Function Description</b>                        |
|--------------------------|--|
| <b>+ / -</b>             | To change option for the selected items            |
| <b>&lt;Tab&gt;</b>       | Switch to next function                            |
| <b>&lt;PGUP&gt;</b>      | Go to the previous page                            |
| <b>&lt;PGDN&gt;</b>      | Go to the next page                                |
| <b>&lt;HOME&gt;</b>      | Go to the top of the screen                        |
| <b>&lt;END&gt;</b>       | Go to the bottom of the screen                     |
| <b>&lt;F1&gt;</b>        | To display the General Help Screen                 |
| <b>&lt;F7&gt;</b>        | Discard changes and exit the SETUP UTILITY         |
| <b>&lt;F9&gt;</b>        | Load optimal default values for all the settings   |
| <b>&lt;F10&gt;</b>       | Save changes and exit the SETUP UTILITY            |
| <b>&lt;F12&gt;</b>       | Print screen                                       |
| <b>&lt;ESC&gt;</b>       | Jump to the Exit Screen or exit the current screen |



# Main Menu

When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.

```
Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
Main  Advanced  H/W Monitor  Boot  Security  Exit

UEFI Version      : IMB-170 L0.33
Processor Type    : Intel(R) Core(TM) i7-2960XM CPU @ 2.70GHz
Processor Speed   : 2700MHz
Microcode Update  : 206A7/25
Cache Size       : 8192KB

Total Memory      : 1024MB with 128MB Shared Memory and 2MB
                   Single-Channel Memory Mode
DDR3_A1          : 1024MB (DDR3-1333)
DDR3_B1          : None

System Date      : [Mon 09/24/2012]
System Time      : [14:32:26]

Set the Date. Use Tab to
Switch between Data elements.

⇐: Select Screen
↑: Select Item
Enter: Select
+/-: Change Option
F1: General Help
F7: Discard Changes
F9: Load UEFI Defaults
F10: Save and Exit
F12: Print Screen
ESC: Exit

Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.
```

## System Information

This item shows the current system information, including Processor type, processor speed, Cache size etc..

## System Date

Use this item to specify the system date. Manually enter the day, month and year.

## System Time

Use this item to specify the system time. Manually enter the hour, minute and second.

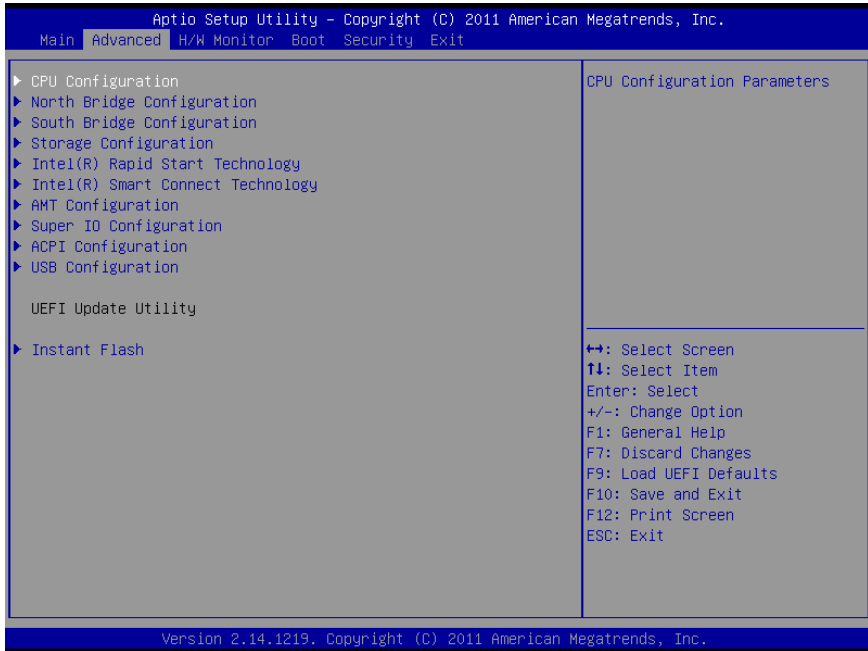
Press <Esc> to return to the Main Menu screen.

# Advanced Menu

In this section, you may set the configurations for the following items: CPU Configuration, North Bridge Configuration, South Bridge Configuration, Storage Configuration, Intel(R) Rapid Start Technology, Intel(R) Smart Connect Technology, AMT Configuration, Super IO Configuration, ACPI Configuration and USB Configuration.



Setting wrong values in this section may cause the system to malfunction.

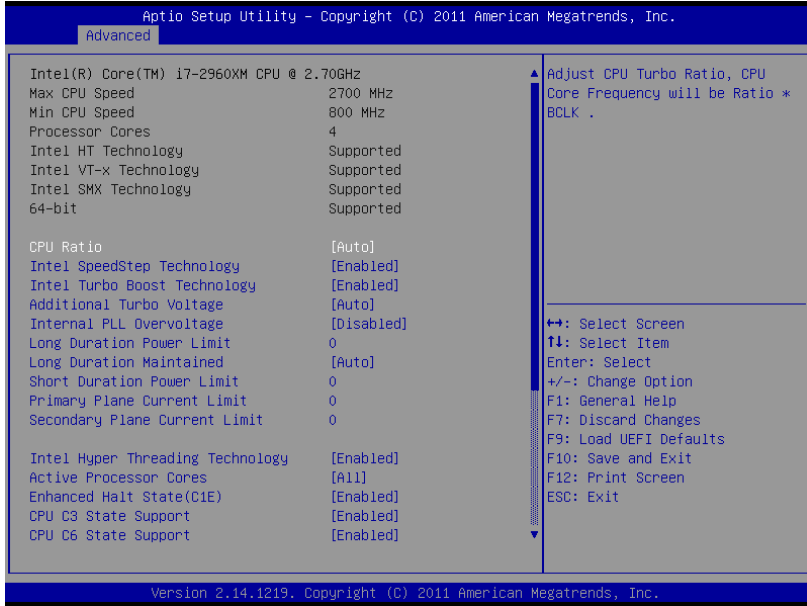


## Instant Flash

Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update the system UEFI without entering operating systems such as MS-DOS or Windows® first. Just save the new UEFI file to your USB flash drive, floppy disk or hard drive and launch this tool, then you can update your UEFI in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please note that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after the UEFI update process is completed.

## CPU Configuration

Scroll to this item and press <Enter> to view the following screen:



### CPU Ratio

Use this to change the ratio value of this motherboard.

### Intel SpeedStep Technology

Intel SpeedStep technology is Intel's new power saving technology. Processors can switch between multiple frequencies and volt-age points to enable power saving. The default value is [Enabled]. Configuration options: [Enabled] and [Disabled]. If you install Windows® Vista™ / 7 and want to enable this function, please set to [Enabled]. This item will be hidden if the current CPU does not support Intel SpeedStep technology.



Please note that enabling this function may reduce CPU voltage and lead to system stability or compatibility issues with some power supplies. Please set this item to [Disabled] if above issues occur.

### Intel Turbo Boost Technology

Use this to enable or disable Intel Turbo Boost Mode Technology. Turbo Boost Mode allows processor cores to run faster than marked frequency in specific conditions. The default value is [Enabled].

### Additional Turbo Voltage

Use this to add voltage when the CPU is in Turbo mode.

### Internal PLL Overvoltage

Use this to enable/disable CPU Internal PLL Overvoltage.

### Long Duration Power Limit

Use this to configure long duration power limit in watts.

### Long Duration Maintained

Use this to configure the time window which the long duration power is maintained.

## Short Duration Power Limit

Use this to configure short duration power limit in watts.

## Primary Plane Current Limit

Use this to configure the maximum instantaneous current allowed for the primary plane.

## Secondary Plane Current Limit

Use this to configure the maximum instantaneous current allowed for the secondary plane.

## Intel Hyper Threading Technology

To enable this feature, a computer system with an Intel processor that supports Hyper-Threading technology and an operating system that includes optimization for this technology, such as Microsoft® Windows® XP / Vista™ / 7 is required. Set to [Enabled] if using Microsoft® Windows® XP, Vista™, 7, or Linux kernel version 2.4.18 or higher. This item will be hidden if the installed CPU does not support Hyper-Threading technology.

## Active Processor Cores

Use this to select the number of cores to enable in each processor package. The default value is [All].

## Enhanced Halt State (C1E)

All processors support Halt State (C1). The C1 state is supported through the native processor instructions HLT and MWAIT and requires no hardware support from the chipset. In C1 power state the processor maintains the context of the system caches.

## CPU C3 State Support

Use this to enable or disable CPU C3 report to OS.

## CPU C6 State Support

Use this to enable or disable CPU C6 report to OS.

## Package C State Support

Configure options that will be programmed into C State package limit register. The default value is [Auto].

## CPU Thermal Throttling

Use this to enable the CPU internal thermal control mechanism to keep the CPU from overheating. The default value is [Enabled].

## No-Execute Memory Protection

No-Execution (NX) Memory Protection Technology is an enhancement to the IA-32 Intel Architecture. An IA-32 processor with “No Execute (NX) Memory Protection” can prevent data pages from being used by malicious software to execute codes. This option will be hidden if the current CPU does not support No-Execute Memory Protection.

## Intel Virtualization Technology

When this option is set to [Enabled], a VMM (Virtual Machine Architecture) can utilize the additional hardware capabilities provided by Vanderpool Technology. This option will be hidden if the installed CPU does not support Intel Virtualization Technology.

## Hardware Prefetcher

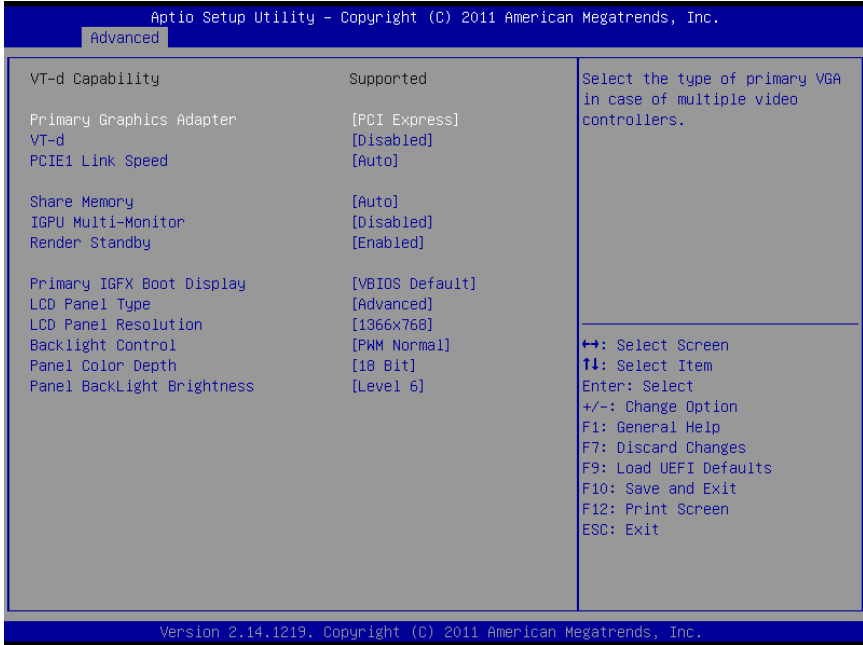
Use this turn on/off the MLC streamer prefetcher.

## Adjacent Cache Line Prefetch

Use this to turn on/off prefetching of adjacent cache lines.

## North Bridge Configuration

Scroll to this item and press <Enter> to view the following screen:



### Primary Graphics Adapter

This allows you to select [Onboard] or [PCI Express] as the primary graphics adapter. The default value is [PCI Express].

### VT-d

Use this to enable/disable Intel(R) Virtualization Technology for the Directed I/O.

### PCIE1 Link Speed

This allows you to select PCIE1 Link Speed. The default value is [Auto].

### Share Memory

This allows you to configure share memory. The default value is [Auto].

### IGPU Multi-Monitor

This allows you to enable or disable IGPU Multi-Monitor. The default value is [Disabled]. If you wish to install a PCI Express card under Windows® XP / Vista™ OS, please disable this option.

### Render Standby

Use this to enable or disable Render Standby by the Internal Graphics Device. The default value is [Enabled].

### Primary IGFX Boot Display

Select the video device which will be activated during POST.

### **LCD Panel Type**

Select the LCD panel used by the internal graphics device.

### **LCD Panel Resolution**

Select the LCD panel resolution.

### **Backlight Control**

Use this to configure Backlight Control settings.

### **Panel Color Depth**

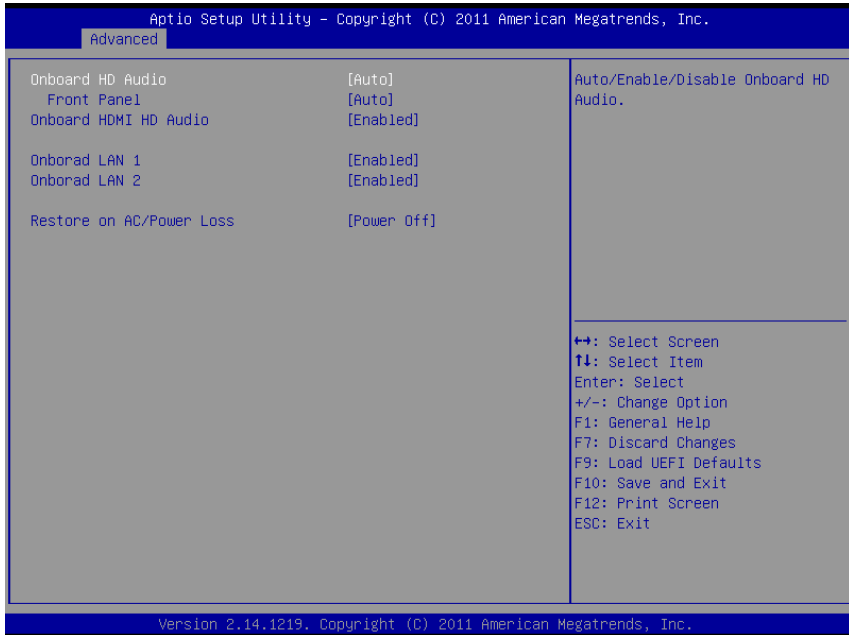
Select LFP Panel Color Depth.

### **Panel Backlight Brightness**

Adjust Panel Backlight Brightness Level.

## **South Bridge Configuration**

Scroll to this item and press <Enter> to view the following screen:



### **Onboard HD Audio**

Select [Auto], [Enabled] or [Disabled] for the onboard HD Audio feature. If you select [Auto], the onboard HD Audio will be disabled when a PCI Sound Card is plugged.

### **Front Panel**

Select [Auto] or [Disabled] for the onboard HD Audio Front Panel.

### **Onboard HDMI HD Audio**

This allows you to enable or disable the Onboard HDMI HD Audio.

### **Onboard LAN 1**

This allows you to enable or disable the Onboard LAN 1.

### **Onboard LAN 2**

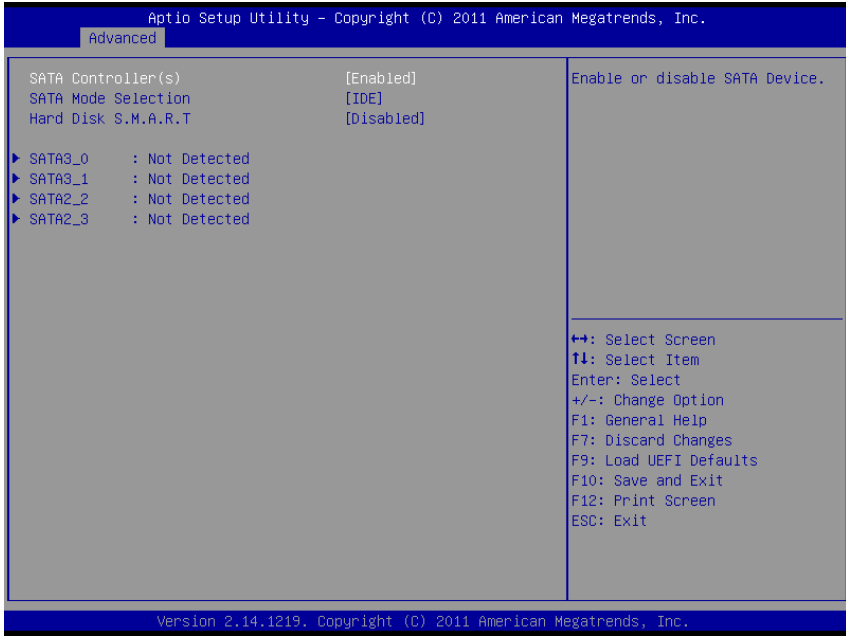
This allows you to enable or disable the Onboard LAN 2.

### **Restore on AC/Power Loss**

This allows you to set the power state after an unexpected AC/power loss. If [Power Off] is selected, the AC/power remains off when the power recovers. If [Power On] is selected, the AC/power resumes and the system starts to boot up when the power recovers.

## Storage Configuration

Scroll to this item and press <Enter> to view the following screen:



### SATA Controller(s)

Use this to enable or disable the SATA Controllers.

### SATA Mode Selection

Use this to select the SATA mode for SATA3\_0, SATA3\_1, SATA2\_2 and SATA2\_3 ports. Configuration options: [IDE Mode], [AHCI Mode] and [RAID Mode]. The default value is [IDE Mode].



AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

### Hard Disk S.M.A.R.T.

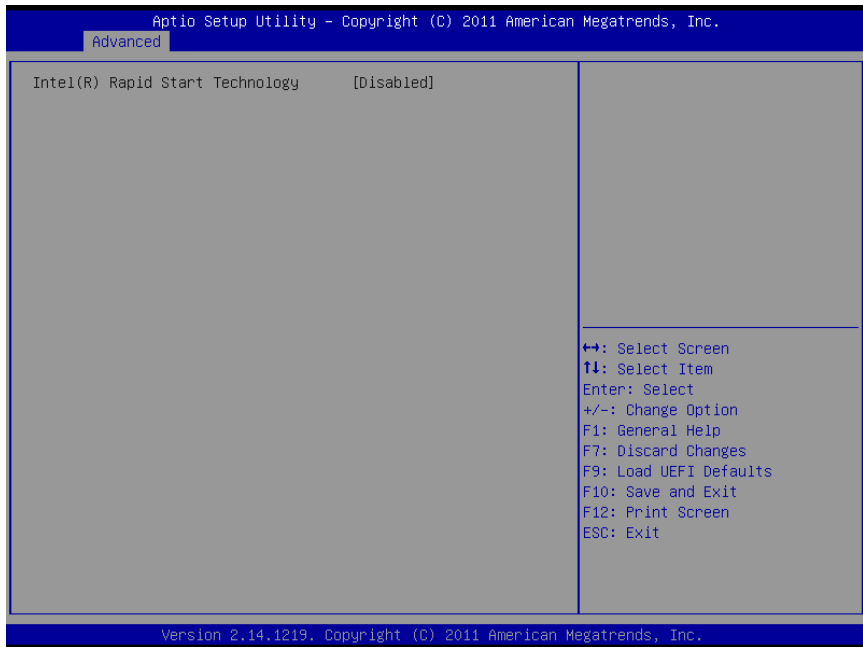
Use this to enable or disable S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology).

Press <Esc> to return to the Advanced Menu screen.



## **Intel(R) Rapid Start Technology**

Scroll to this item and press <Enter> to view the following screen:

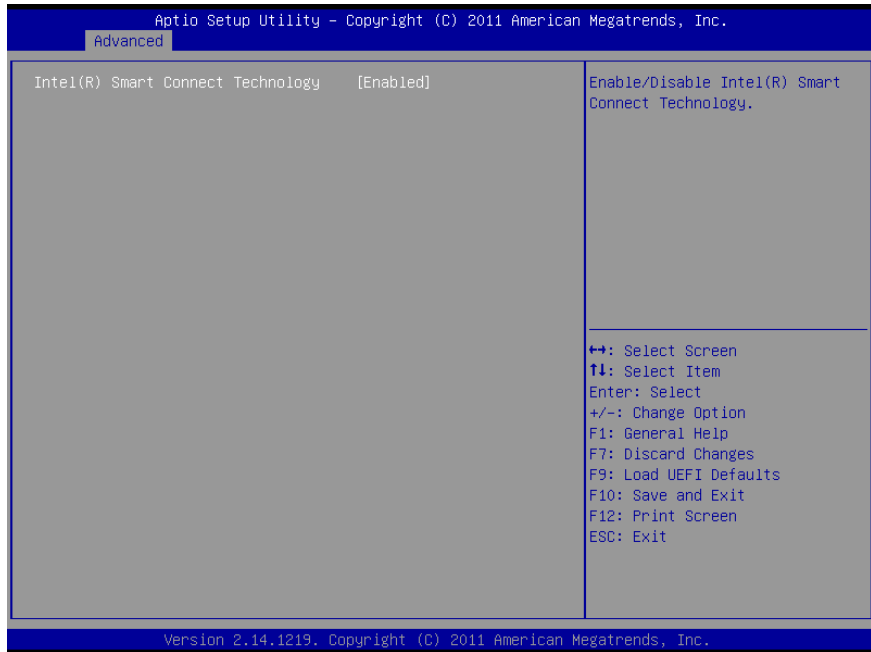


## **Intel(R) Rapid Start Technology**

Use this to enable or disable Intel(R) Rapid Start Technology. Intel(R) Rapid Start Technology is a new zero power hibernation mode which allows users to resume in just 5-6 seconds. The de-fault is [Disabled].

## **Intel(R) Smart Connect Technology**

Scroll to this item and press <Enter> to view the following screen:



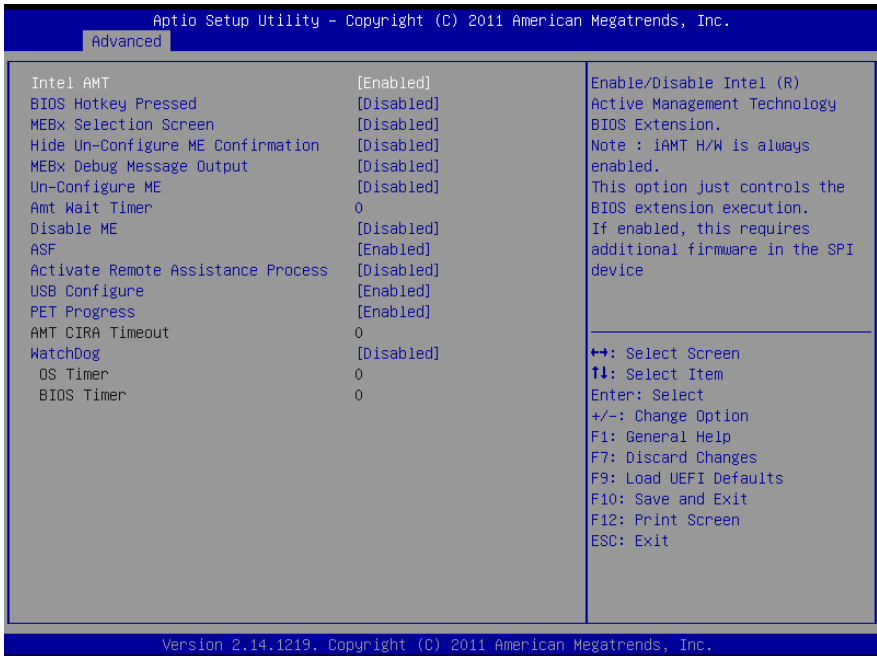
## **Intel(R) Smart Connect Technology**

Use this to enable or disable Intel(R) Smart Connect Technology. Intel(R) Smart Connect Technology keeps your e-mail and social networks, such as Twitter, Facebook, etc. updated automatically while the computer is in sleep mode. The default is [Enabled].

Press <Esc> to return to the Advanced Menu screen.

## **AMT Configuration**

Scroll to this item and press <Enter> to view the following screen:



### **Intel AMT**

Use this to enable or disable Intel(R) Active Management Technology.

### **BIOS Hotkey Pressed**

Use this to enable or disable BIOS Hotkey Pressed.

### **MEBx Selection Screen**

Use this to enable or disable MEBx selection screen.

### **Hide Un-Configure ME Configuration**

Use this to hide Un-Configure ME without password confirmation prompt.

### **MEBx Debug Message Output**

Use this to enable or disable MEBx debug message output.

### **Un-Configure ME**

Use this to enable or disable Un-Configure ME without password.

## **AMT Wait Timer**

Set timer to wait before sending ASF\_GET\_BOOT\_OPTIONS.

## **Disable ME**

Use this to set ME to Soft Temporary disabled.

## **ASF**

Use this to enable or disable Alert Specification Format.

## **Activate Remote Assistance Process**

Use this to enable or disable trigger CIRA boot.

## **USB Configure**

Use this to enable or disable USB Configure.

## **PET Progress**

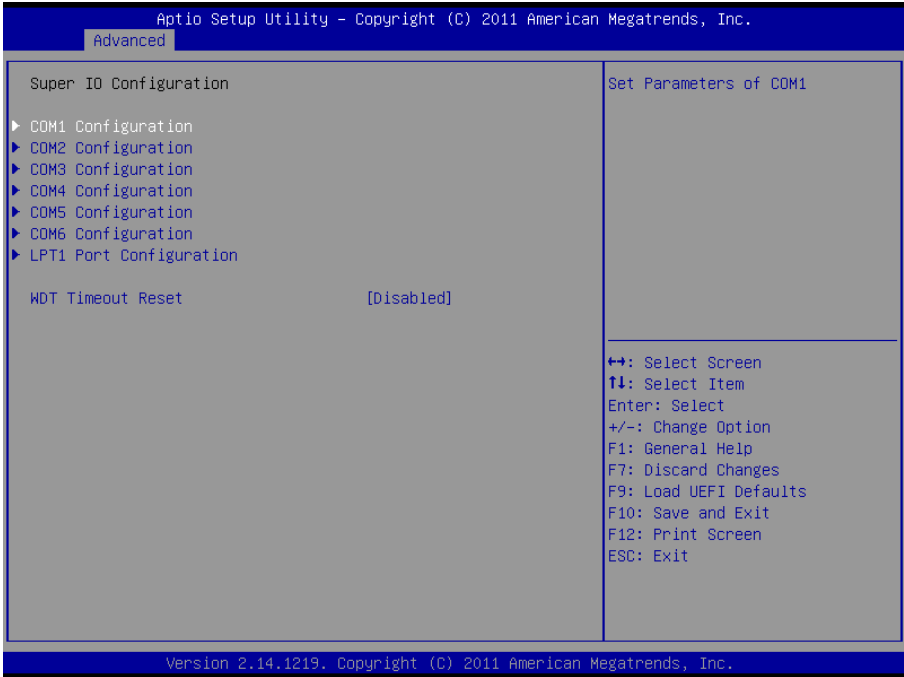
Use this to enable or disable PET Events progress to receive PET events.

## **WatchDog**

Use this to enable or disable WatchDog Timer.

## **Super IO Configuration**

Scroll to this item and press <Enter> to view the following screen:



### **COM1~COM6 Configuration**

Use these to set parameters of COM1~COM6.

### **LPT1 Port Configuration**

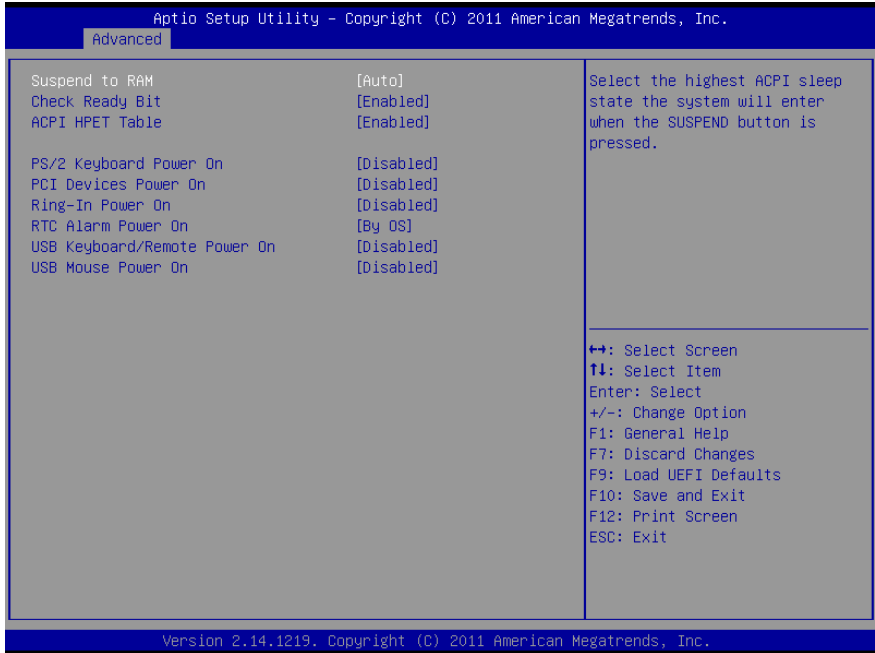
Use this set parameters of the onboard parallel port.

### **WDT Timeout Reset**

This allows users to enable/disable the Watch Dog Timer timeout to reset system. The default value is [Disabled].

## ACPI Configuration

Scroll to this item and press <Enter> to view the following screen:



### Suspend to RAM

Use this to select whether to auto-detect or disable Suspend-to-RAM. Select [Auto] to enable if the OS supports it.

### Check Ready Bit

Use this to enable or disable Check Ready Bit.

### ACPI HPET Table

Use this to enable or disable the ACPI HPET Table. The default value is [Enabled]. Please set this option to [Enabled] if you plan to use this motherboard to submit Windows® Vista™ certification.

### PS/2 Keyboard Power On

Use this to enable or disable the PS/2 keyboard to turn on the system from power-soft-off mode.

### PCI Devices Power On

Use this to enable or disable the PCI devices to turn on the system from power-soft-off mode.

## **Ring-In Power On**

Use this to enable or disable the Ring-In signals to turn on the system from power-soft-off mode.

## **RTC Alarm Power On**

Use this to enable or disable the RTC (Real Time Clock) to power on the system.

## **USB Keyboard/Remote Power On**

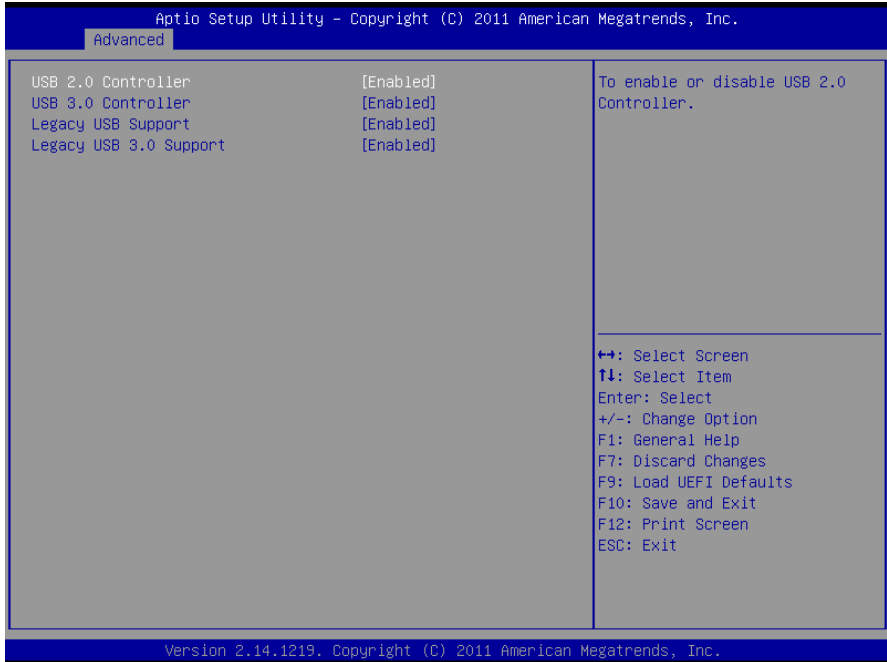
Use this to enable or disable the USB Keyboard/Remote to power on the system.

## **USB Mouse Power On**

Use this to enable or disable the USB Mouse to power on the system.

## **USB Configuration**

Scroll to this item and press <Enter> to view the following screen:



### **USB 2.0 Controller**

Use this to enable or disable the USB 2.0 controller.

### **USB 3.0 Controller**

Use this to enable or disable the USB 3.0 controller.

### **Legacy USB Support**

Use this to select legacy support for USB devices. There are four configuration options: [Enabled], [Auto], [Disabled] and [UEFI Setup Only]. The default value is [Enabled]. Please refer to the descriptions below for details of these four options:

[Enabled] - Enables support for legacy USB.

[Auto] - Enables legacy support if USB devices are connected.

[Disabled] - USB devices are not allowed to be used under legacy OS and UEFI setup when [Disabled] is selected. If you have USB compatibility issues, it is recommended to select [Disabled] to enter OS.

[UEFI Setup Only] - USB devices are allowed to be used only under UEFI setup and Windows / Linux OS.

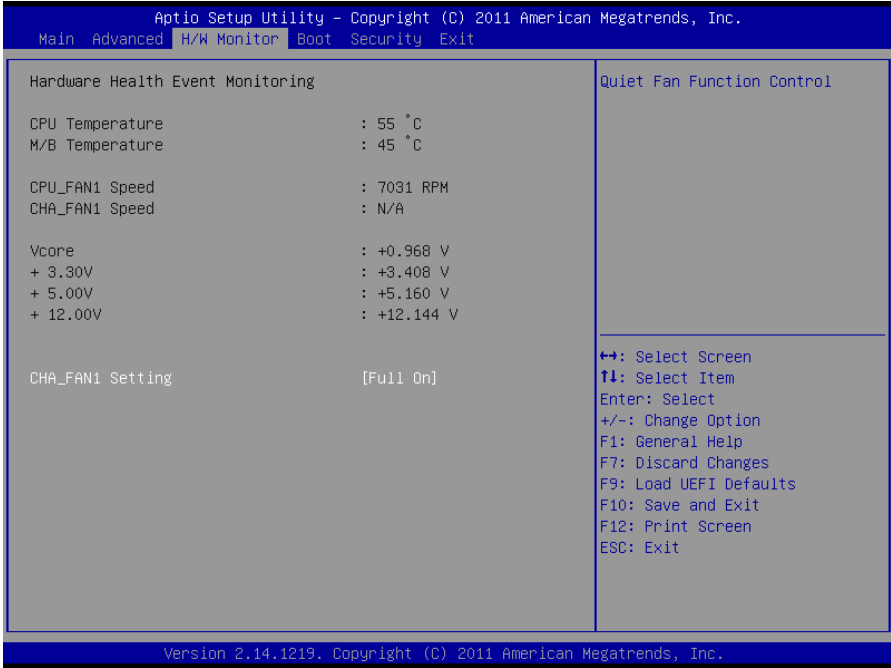
### **Legacy USB 3.0 Support**

Use this to enable or disable legacy support for USB 3.0 devices. The default value is [Enabled].



# H/W Monitor Menu

In this section, it allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.

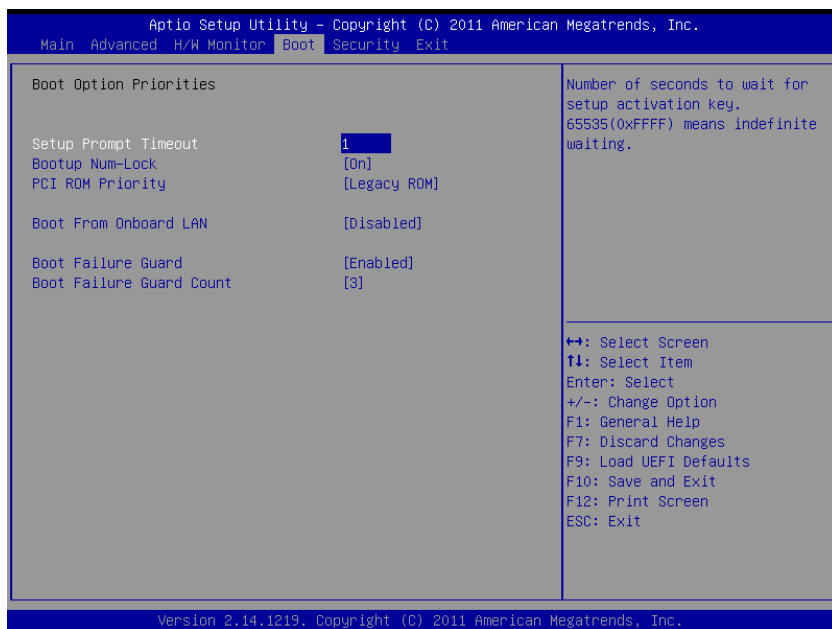


## CHA\_FAN1 Setting

This allows you to set the chassis fan 1 speed. The default value is [Full On].

# Boot Menu

In this section, it will display the available devices on your system for you to configure the boot settings and the boot priority



## Setup Prompt Timeout

This shows the number of seconds to wait for the setup activation key. 65535(0xFFFF) means indefinite waiting.

## Bootup Num-Lock

If this is set to [On], it will automatically activate the Numeric Lock after boot-up.

## PCI ROM Priority

Use this to adjust PCI ROM Priority. The default value is [Legacy ROM].

## Boot From Onboard LAN

Use this to enable or disable Boot From Onboard LAN.

## Boot Failure Guard

Enable or disable Boot Failure Guard.

## Boot Failure Guard Count

Enable or disable Boot Failure Guard Count.

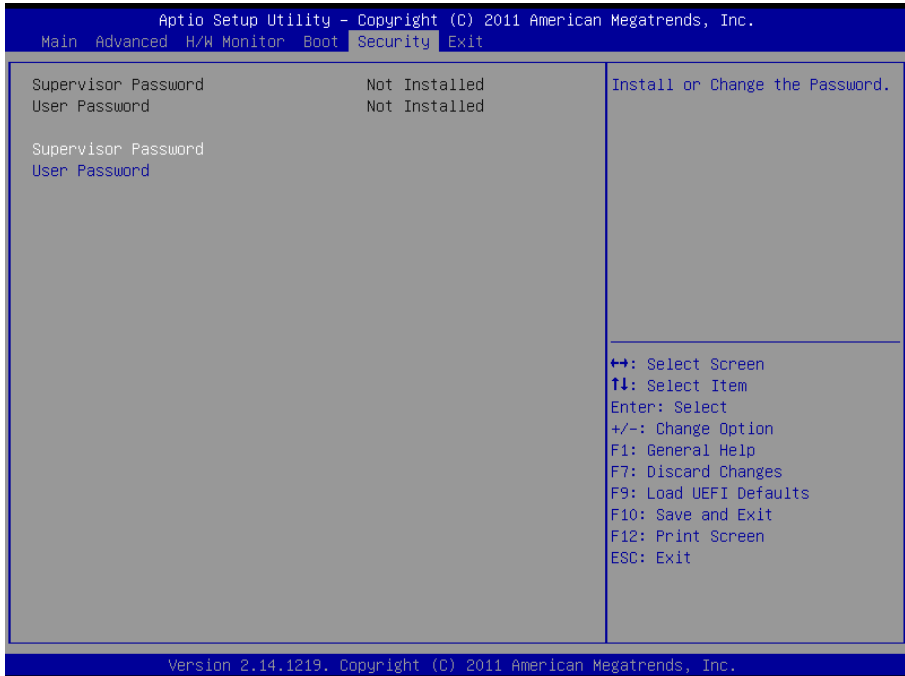
# Security Menu

The Security Menu allows you to set Administrator and User password.

If ONLY the Administrator's password is set, then this only limits access to setup and is only asked for when entering Setup.

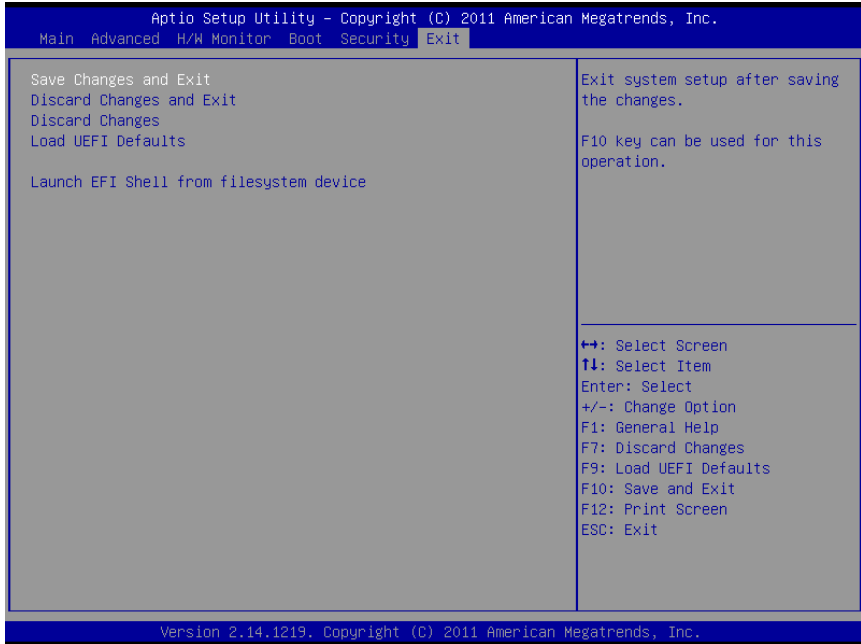
If ONLY the user's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup, user will have administrator rights.

The password length must be in the following range: Minimum length:3, Maximum:20.



# Exit Menu

The Exit Menu allows you to save the changes that you have made in the Setup Utility and exit the Setup Utility.



## Save Changes and Exit

When you select this option, the following message, “Save configuration changes and exit setup?” will pop out. Select [OK] to save changes and exit the UEFI SETUP UTILITY.

## Discard Changes and Exit

When you select this option, the following message, “Discard changes and exit setup?” will pop out. Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

## Discard Changes

When you select this option, the following message, “Discard changes?” will pop out. Select [OK] to discard all changes.

## Load UEFI Defaults

Load UEFI default values for all options. The F9 key can be used for this operation.

## Launch EFI Shell from filesystem device

Attempt to Launch EFI Shell application (Shell64.efi) from one of the available filesystem devices.

# Chapter 5 Appendix

## Care and Maintenance

Regular maintenance of the ARP-2200AP-G00 Series touch panel computer can help prevent damage or downtime.

Service should only be performed by qualified and authorized personnel. Make sure your touch panel computer is powered down and unplugged before removing the cover or working on internal components.

- Keep the ARP-2200AP-G00 Series touch panel computer in a dry, clean space. Minimize exposure to dust - don't get the power switches or other controls wet.
- If the ARP-2200AP-G00 Series touch panel computer gets wet, power it off immediately. Wait for the ARP-2200AP-G00 Series touch panel computer to dry completely before powering it on again.
- If you move it from a very cold environment to a warm environment, give the components time to reach room temperature before powering it on.
- Clean the exterior surfaces of the unit with a soft, damp cloth. Never use alcohol, paint thinner or benzene to clean this unit.
- Occasionally remove dust from interior surfaces, taking care not to touch or damage connections or chips.
- Position your system unit away from direct sunlight, moisture, dust, oil and thoroughfare.
- Never expose the unit to harsh jarring.
- Ensure that all ventilation outlets are always free from obstruction.
- To protect components against damage from static electric discharge, you should: Use a grounding wrist strap. The strap will have an "alligator"clip at the end of a shielded wire lead. Clip it to a grounded object. Put on and connect the strap before you handle the components. Also, you can use an anti-static pad. Put any components on the pad whenever you work on them outside the computer. If you don't have a pad, put the components on the anti-static bag they came in.
- Back up all the critical data, in a situation of unit being moved there are chances of hard disk getting damaged. Before moving, remove all data disks from the drive, turn off the computer and all the peripherals. Also unplug the power and disconnect cables.
- In the event of mechanical/power failure or damage, do not attempt to repair the system unit or wires. Refer all such problems to experienced personnel.
- If the touch panel computer needs service, please consult the authorized dealer through the contact information provided on the warranty card. Faulty service may void the warranty.

# Product Limited Warranty

## 1. Product Limited Warranty

Arista Corporation ARP-2200AP-G00 Series touch panel computer purchased in the U.S. and Canada come with a 2-year limited warranty. The following sections describe the limited warranties and return policies for the North America region.

### 1) Limited Warranty Coverage

- If a product does not work properly because of a defect in materials or workmanship, Arista Corporation will, for the length of a period of three years, starting with the date of the original purchase (invoice date), at its discretion, either repair your product with new or refurbished parts, or replace it with a new or refurbished product.
- The decision to repair or replace will be made by Arista Corporation. During the “Labor” Limited Warranty period, there will be no charge for labor. During the “Parts” Limited Warranty period, there will be no charge for parts.
- The customer pays the freight for shipping the defective products to Arista Corporation. After repairs or replacement, Arista Corporation will ship and pay UPS Ground for the products being shipped back to the customer.
- This Limited Warranty only applies to products purchased and serviced in the North America region. Customers outside of the United States will need to pay the freight for shipping to Arista Corporation and shipping back to the customer after repairs or replacement.

### 2) Limited Warranty Limits and Exclusions

- Limited Warranty only covers failures due to defects in material or workmanship, and does not cover general wear and tear, or cosmetic damages.
- The Limited Warranty does not cover damages due to external causes including, but not limited to, failures which are caused by products not supplied by Arista Corporation.
- The Limited Warranty does not cover damages and/or failures which result from negligence, accidents, misuse, abuse, mishandling, misapplication, alteration, faulty installation, set-up adjustment, improper maintenance, power surge, problems with electrical stability, failure to maintain environmental conditions within operating range specified by the manufacturer, relocations or attempts to relocate systems, lightning damage, modification, service by anyone other than authorized service providers, usage not in accordance with product instructions, failure to perform required preventative maintenance, problems caused by use of parts and components not supplied by Arista, and/or adding or altering components without concurrence from Arista Technical Support.
- Any signs showing that the serial numbers have been altered or tampered with will void this warranty.
- There is no expressed warranty except as stated under “Limited Warranty Coverage”. Under no equitable theory shall Arista Corporation be held liable for monetary and/or non-monetary damages resulting from the normal or abnormal usage of our products. Use, distribution and/or similar engagement of our products constitute implied agreement to these and similar Arista Corporation Limited Liability policies.

## 2. Technical Support

### 1) Technical Support Availability

- Arista Corporation is dedicated to your satisfaction. Arista’s Technical Support Team will make every effort to solve the problem over the phone or through e-mail. If required, an RMA number will be issued to resolve the problem.
- If you are calling regarding a technical problem, please keep product serial number and nature of problem handy to provide the technician.

### 2) Technical Support Contact Information

- Technical Support Hours: Monday through Friday: 8:00 am to 5:00 pm PST
- Technical Support Phone Number : Phone: (510) 226-1800 ext. 400, Fax: (510) 226-1890

## 3. RMA Procedures

### Return Material Authorizations

- All returns require an RMA (Return Material Authorization) number. Please contact Arista's customer service representative or complete the RMA request form to obtain an RMA number prior to returning a product(s).
- Returns will be authorized in accordance with the following policy: If it is deemed that the unit/part should be returned, Arista's customer service representative will give the customer a return authorization number and a ship to address to return the product.
- Products will not be accepted by Arista Corporation's RMA department for return if not accompanied by a valid RMA number, which must be clearly marked on the outside of the package.
- Products must be returned within 30 days after the date of when the RMA number was issued. After the 30-day period, the RMA number issued will be invalid. Please do not return products with an invalid RMA number; Contact Arista's customer service representative if your RMA number is invalid.

### Warranty Returns

- Products to be returned must be within the applicable warranty period. If the warranty period is over, the original product will be returned to the customer.
- The RMA number for Warranty Return will be issued within 24 hours from the time that the RMA application form is received by Arista.

### Non-Warranty Returns

- If the customer wishes to return a product for repair that is no longer within the warranty period, or for damage not covered by the warranty, an Arista sales representative will inform the customer of the estimated cost of the repair.
- Return of the product will count as the authorization to repair and agreement to pay for the cost of repair, whether or not it exceeds the original estimate.

## 4. RMA Credit Policy

### Returns for Credit & Credit Types

Returns for credit that require Arista's management approval may take up to 48 hours for processing/approval. Products can be returned for credit with the following conditions:

**Dead on Arrival (DOA):** The customer must report DOA units to Arista's RMA department in 14 calendar days after the product is received. Customer can request either return for credit or replacement. If replacement is requested, Arista will ship the replacement in 7 calendar days and invoice the customer for the replacement. A credit memo will be issued to the customer after the DOA product is received and verified.

**Evaluation Return:** The customer must notify Arista's RMA department before or at the end of the evaluation period if the customer decides to return the evaluation unit. An RMA number must be obtained from Arista prior to returning the unit.

**Short Shipment:** The customer must report for any item received short-shipped or wrong products received in 7 calendar days after the product is received. The customer can request either: shipment of missing items, replacement of wrong items or return for credit. If shipment of missing items or replacement of wrong items is requested, Arista will ship the replacement in 7 calendar days. A credit memo will be issued to the customer after the returned product is received and verified.

**Non-Open-Box Return:** In the event where a customer places an incorrect order, over stock or double orders, the customer can request return for credit with the following restocking fees applied.

**Restocking Fee:** A 15% restocking fee will apply to non-open-box returns when returned within 3 months after invoice date. A 30% restocking fee will apply to non-open-box returns returned within 6 months. Beyond 6 months after invoice date, a 50% restocking fee will apply to non-open-box returns returned within 12 months. Beyond 12 months after invoice date, Arista will not grant authorization to return non-open-box returns for credit.

**Return Condition:** All valid returns for credit products must be returned in its original packaging and in good condition along with all the items and accessories originally shipped with the product. Any damages will be assessed and the cost of repair or refurbishment will be deducted from the credit issued.

**No Credit DOA:** No credit will be given to the customer for DOA products received by Arista beyond 30 calendar days after the invoice date. No credit will be given to all non-cancellable, non-returnable, custom order parts.

## 5. RMA Transportation Policy

### Transportation Charges

- All customers are responsible for all freight charges involved in shipping the defective products back to Arista Corporation. Arista Corporation will cover the cost of returning products that are under warranty via UPS Ground to customers in the United States after repairs or replacement.
- International customers are responsible for all transportation, insurance, duties and other similar charges for all returned products shipped outside of the United States and must ensure that the product is appropriately packaged. Shipping damages resulting from improper packaging will be the customer's responsibility. there is no response
- Arista is not responsible for products lost during shipment. All products being returned for Limited Warranty repair or replacement must be sent freight prepaid.

### Transportation Damages

- In cases of transportation damage, the customer is responsible for filing any and all claims with the shipping carrier.
- To avoid any potential risk that an RMA product is lost or damaged while in transit to Arista, it is recommended that the customer insures and declares the full value of the RMA product. The customer is 100% responsible for the RMA product while in transit to Arista.
- We urge customers to pack the RMA product carefully to avoid transit damage.

### Refused Shipment Restocking Fees

- If a customer refuses a shipment, credit will be issued after the refused product is received and verified by Arista. The shipping charge plus 15% restocking fees will be billed to the customer.

## 6. RMA Shipping Instruction

### Product Non-Acceptance

- Products will not be accepted by Arista Corporation if not accompanied by a valid RMA number, which must be clearly marked on the outside of the package.
- Any products refused by Arista will incur the fees and/or charges applied by the shipping carrier, and shall be the sole liability of the original shipper.

### Sample RMA Shipping Label

|   |
|---|
| <p><b>ARISTA CORPORATION</b><br/><b>Attention: RMA Department</b><br/><b>40675 Encyclopedia Circle</b><br/><b>Fremont, CA 94538</b><br/><b>RMA: # _____</b></p> |
|---|

### Package Identification

- Each box must reference the following information: Customer/Contact Name · Return Address · Phone Number · RMA Number (issued by an authorized ARISTA source).
- The RMA number must be written on the outside of the shipping container for identification purposes.
- Shipments not properly identified will be refused.
- To avoid any discrepancy of items received, please do not return accessories (manuals, driver CDs, OS CDs, cables, etc.) with the RMA unit in need of repair.
- If available, use the original box/packaging to ship back RMA units to avoid transit damage.



## **RMA Rejection Policy**

Products will not be accepted by Arista Corporation if not accompanied by a valid RMA number, which must be clearly marked on the outside of the package. Arista reserves the rights to return any RMA product received that does not comply with the information given on the original Return Material Authorization (RMA) request, such as:

- Invalid RMA number
- RMA number not visible and/or not on the box shipping label
- RMA condition described by the customer differs from the actual condition of the product
- Expired RMA number
- Unauthorized return (no RMA # was issued)
- No Arista serial number on the product
- Product is physically damaged

If you have any questions regarding Arista's RMA procedures, product return policies and/or other similar issues, please call Arista's Customer Service and RMA Department during office hours, Monday through Friday (8:30am-5:30pm PST)

- Phone: (510) 226-1800 ext. 400
- Fax: (510) 226-1890
- Email: [RMA@goaristaPC.com](mailto:RMA@goaristaPC.com)

## **7. Arista's Limited Liability**

- Arista Corporation is not liable for incidental or consequential damages resulting from the use of Arista products or arising out of any breach of Arista's full limited warranty.
- Under no equitable theory shall Arista Corporation be held liable for monetary and/or non-monetary damages resulting from the normal or abnormal usage of our products. Use, distribution and/or similar engagement of our products constitute implied agreement to these and similar Arista Corporation Limited Liability policies.
- Arista Corporation is not liable for damages or reimbursement for lost time, lost revenue, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the service providers.
- All expressed and implied warranties, including the limited warranty of Merchantability are limited to the period of the limited warranty, unless, otherwise, indicated in writing by Arista Corporation.

### **Customer Responsibilities**

- By requesting service, the eligible customer acknowledges the terms of the limited warranty, including the disclaimer and limitation of liability provision.
- Prior to seeking service, customers must back-up all data, programs, files and/or similar digital documents that may become damaged and/or lost due to service.
- Arista Corporation, WITHOUT LIMITATION, is not responsible for lost, damaged or otherwise destroyed data due to service.

## **8. Disclaimer**

ARISTA RESERVES THE RIGHT TO CHANGE ANY OF ITS TERMS OF SERVICE, WARRANTY POLICIES, SERVICE PROGRAMS, SERVICE METHODS AND/OR SIMILAR POLICIES AT ANY TIME AND WITHOUT PRIOR OR FORMAL NOTICE TO ITS CUSTOMERS, VENDORS, RESELLERS, END USERS OR SIMILAR.

## Disposal and Recycling Information

Your ARP-2200AP-G00 Series touch panel computer must be disposed of properly according to local laws and regulations.

When your computer reaches the end of its life cycle, contact your local authorities to know about recycling options.



This symbol on the product or in the manual means that your electrical or electric equipment should be disposed at the end of its life-cycle separately from your household waste. There are separate collection systems for recycling in the EU. For more information, please contact your local authorities or your retailer where you purchased the product.

## Disclaimer and Copyright Notice

### Disclaimer

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*Arista Corporation*  
*40675 Encyclopedia Circle, Fremont, CA 94538 U.S.A.*  
*Tel: (510) 226-1800 Fax: (510) 226-1890*  
*<http://www.goarista.com>*