HPC-1050/1051

10.1" Fanless Panel PC w/ Intel® BayTrail Processors

User's Guide

Content

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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.
- Access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken; and access is through the use of a tool or lock and key, or other means of security, and is controlled by authority responsible for the location.

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 encourage 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.

■ Instructions for Lithium Battery

WARNING

Danger of explosion when battery is replaced with incorrect type. Only replace with the same or equivalent type recommended by the manufacturer.

Do not dispose of lithium batteries in domestic waste. Dispose of the battery according to the local regulations dealing with the disposal of these special materials (e.g. to the collecting points for disposal of batteries)

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:
This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reason able protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radiofrequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

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 overvoltage 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

The HPC-1050 Series 10.1" Panel PC is combining the Intel® BayTrail Processors for a wide range of industrial applications. Storage includes a 2.5" SATA hard drive or a solid-state drive (SSD). Supported interfaces include 2x GbE LAN, 2x COM port, 1x USB .3.0, 4x USB 2.0 ports, 1x HDMI, 1x VGA thus easily meeting a broad range of customer requirements. The HPC series provide a compact, high performance human-machine interface for home automation demands.

Checklist
- HPC-1050
- Power Adapter
- Power Cord
- Driver CD
- Quick installation Guide
- Optional VESA Mounting Kit
- Optional wireless LAN
- Optional RFID

Features
- 10.1" LCD Display with 1024 x 600 resolution
- Intel® BayTrail Processors
- Intel® HD Graphics
- IP65 approved front bezel
- 2x GbE, 2x COMs, 4x USB 2.0, 1x USB 3.0, 1x Mini-PCIe slot
- HDMI, VGA, HD Audio
- Optional Digital Camera and Wireless LAN
- Fanless design

■ Product Specifications

CPU Support	Intel® Atom™ BayTrail processors
Memory	1x DDR3L SODIMM
BIOS	AMI Plug & Play SPI BIOS
Graphic	Intel® HD Graphics
Touch Sensor	5-wire resistive touch sensor
LCD Display	Size: 10.1inch, 16:9 Resolution: 1024 x 600 Backlight: LED Contrast Ratio: 500:1 (typical) Brightness: 200cd/m2 (typical)
External Display	1x HDMI 1x VGA
LAN	2x Gigabit Ethernet (Realtek RTL8111E) PXE/WOL supported
Audio	Realtek ALC662 HD Codec w/ 2W Audio Amplifier Line-In, Line-Out and Mic-In Supported
Storage	1x 2.5" SATA HDD or SSD space
USB	4x USB 2.0 , 1x USB 3.0
COM	2x COM port with RS-232/422/485 selection supported
Expansion slot	1x Mini-PCIe slot
Hardware Monitor	Operating voltage, CPU temperature
Watchdog Timer	1-255 step, can be set with software on Super I/O
Power	DC 12V Input
OS Support	Windows 7, Windows 8, Linux
Dimensions	262 x 200 x 61mm (WxDxH)
Environment	Operating Temperature: With Industrial SSD: -10 ~ 50° C (Ambient with air flow) With 2.5" HDD: 0 ~ 40° C (Ambient with air flow) Storage Temperature: -20°C to 80°C, 0%-90%, non-condensing
Certification	CE, FCC Class A

Table 1 HPC-1050 product specifications

■ System tour

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

■ I/Os
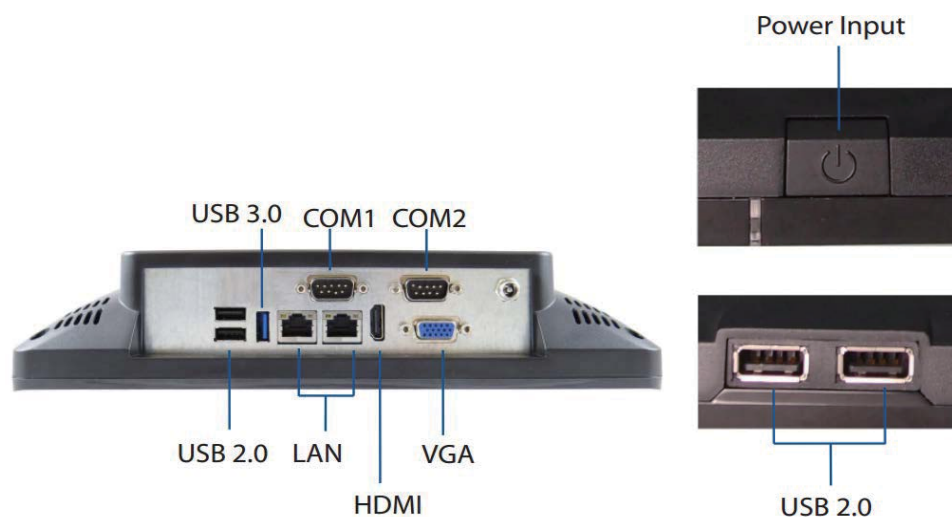
Figure 1 I/Os

USB

The USB (Universal Serial Bus) port is compatible with USB devices such as keyboards, mouse devices, cameras, and hard disk drives. USB allows many devices to run simultaneously on a single computer, with some peripheral acting as additional plug-in sites or hubs.

Power Switch

The power switch allows powering ON and OFF the system.

Ethernet

The eight-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

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

COM

D-Sub 9 pin connector for RS-232/422/485 connection

VGA

D-Sub 15 pin VGA connector for display output

Mechanical Dimensions
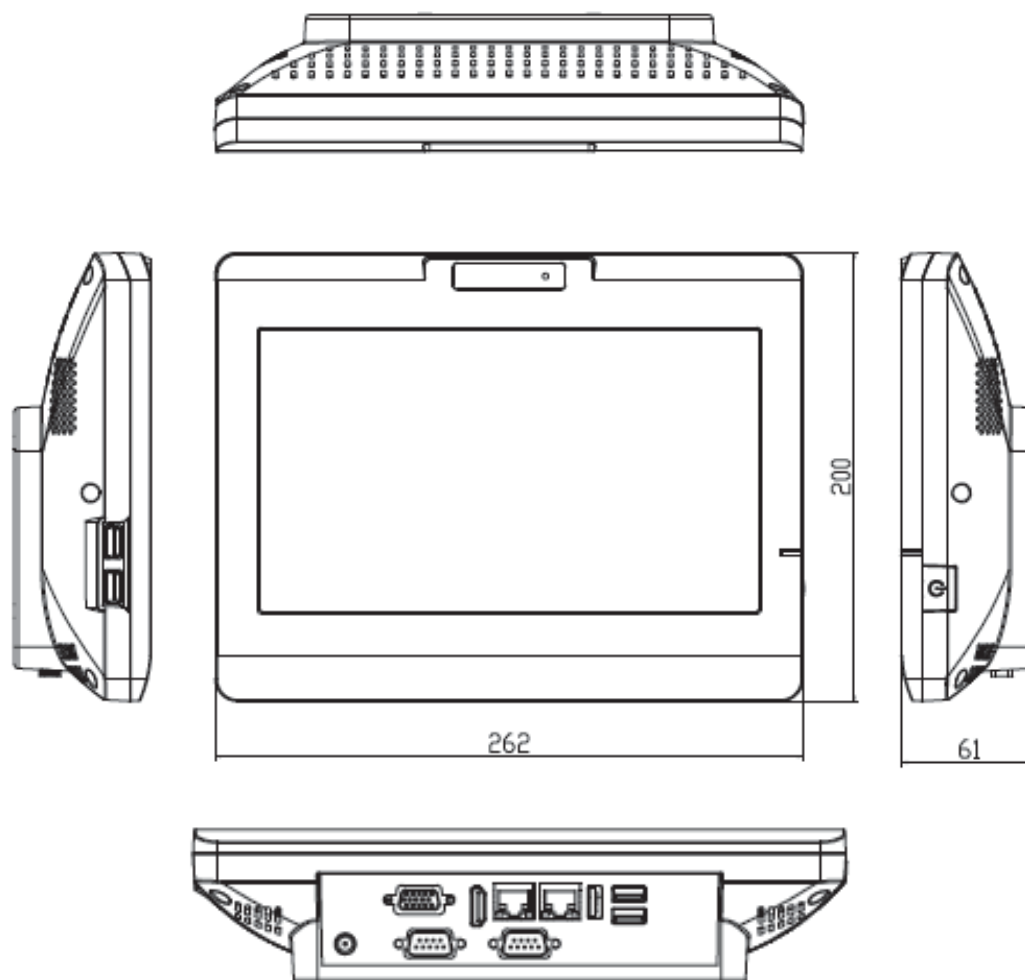
262 x 200 x 61 mm (W x D x H)

Figure 2 Mechanical Dimensions

Chapter 2

Getting Started

■ Setting up your PC

■ Connecting the monitor

Connect the HDMI / VGA cable from your display to the HDMI / VGA port.

HDMI **VGA**
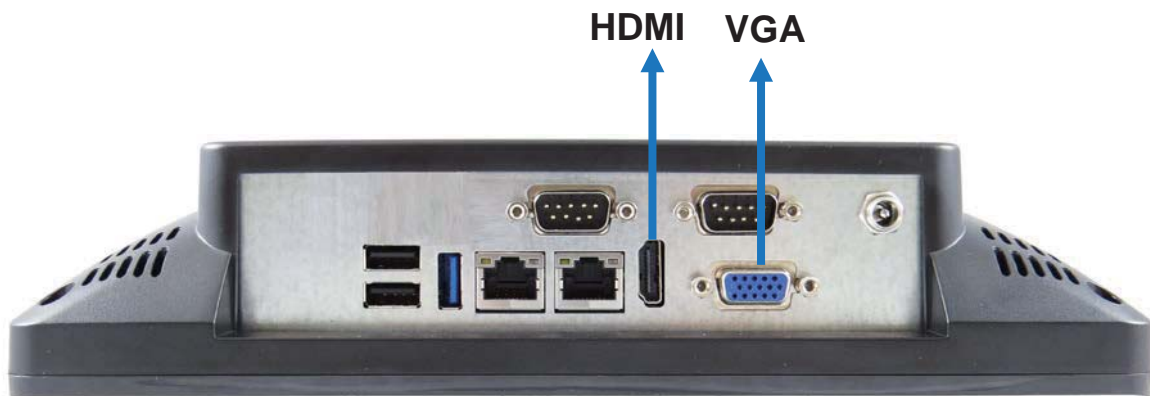
Figure 3 VGA / HDMI

■ Connecting USB mouse & keyboard

Your HPC-1050 does not come with a keyboard and mouse, but you can use any USB keyboard or mouse with your computer.
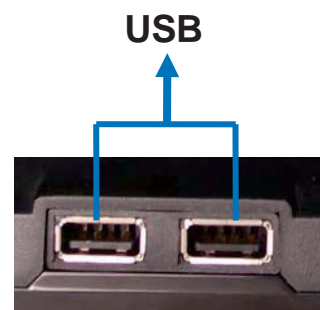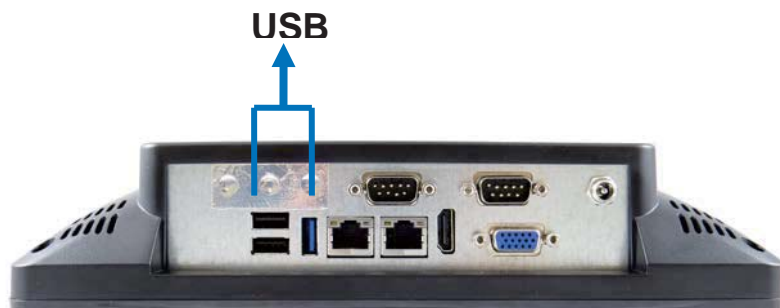
Figure 4 Connect USB mouse & keyboard

NOTE

Using a third-party USB mouse or keyboard may require software drivers. Check the manufacturer's website for the latest software drivers.

■ Connecting to a network device

Connect one end of a network cable to the LAN port on the system rear panel and the other end to a hub or switch.
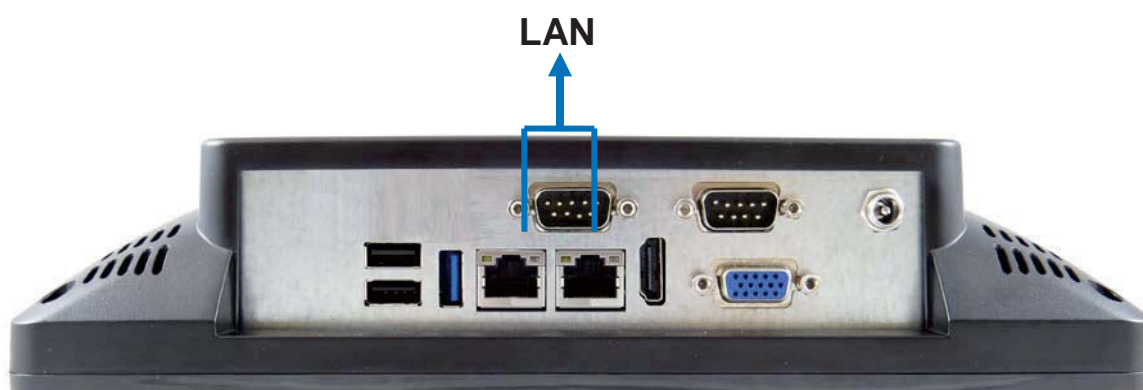
Figure 5 RJ45 connector

■ **COM ports**

COM ports with the pin definitions.

COM
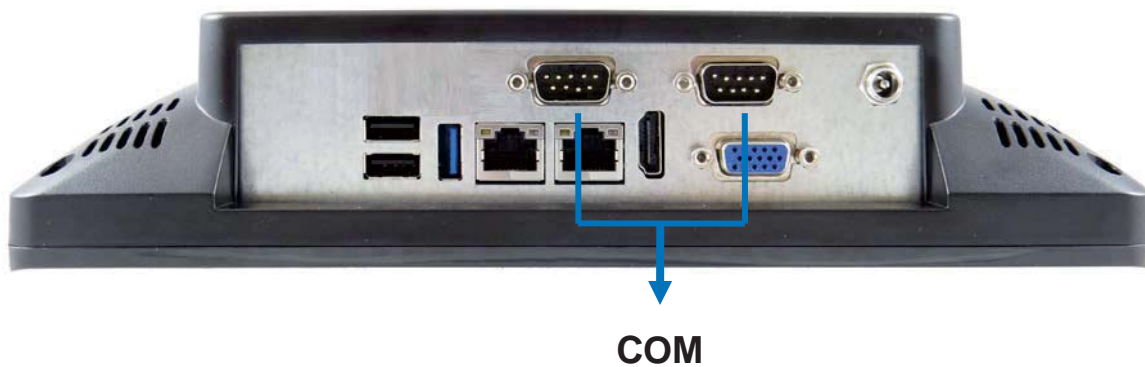
COM1~COM2 RS-232 / 422 / 485 Port DB-9
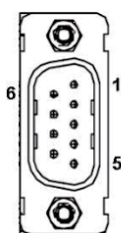
Pin	RS-232	RS-422	Half Duplex RS-485	Full Duplex RS-485
1	DCD	TX-	DATA-	TX-
2	RXD	RX+	N/A	RX+
3	TXD	TX+	DATA+	TX+
4	DTR	RX-	N/A	RX-
5	GND	GND	GND	GND
6	DSR	N/A	N/A	N/A
7	RTS	N/A	N/A	N/A
8	CTS	N/A	N/A	N/A
9	RI	RI	RI	RI

Figure 6 COM port

■ Turning on the system

1. Connect the power adapter cable to the DC jack (DC IN) of the HPC-1050
2. Connect the power cable to the power adapter
3. Connect the power cable to a power outlet
4. Press the power switch on the front panel to turn on the system
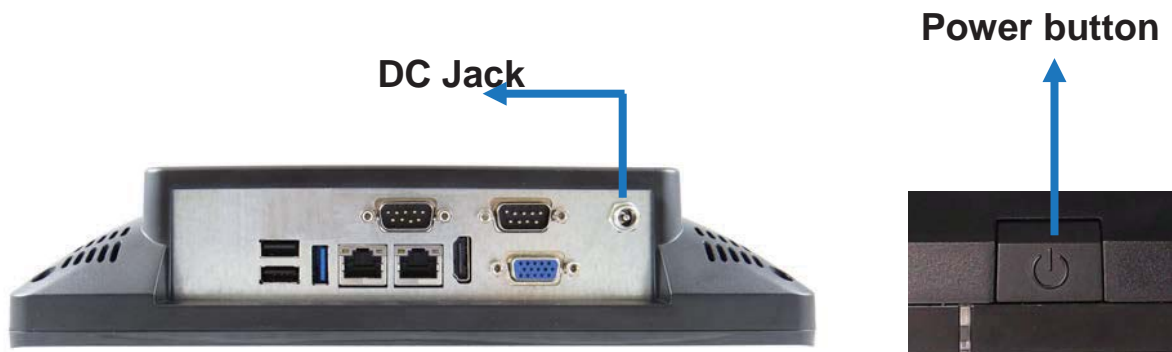
Figure 7 Turning on the system

■ VESA Mounting

The product comes with VESA FDMI 75 standard mounting holes as shown below. Use 4 screws with the appropriate length for your mounting bracket.
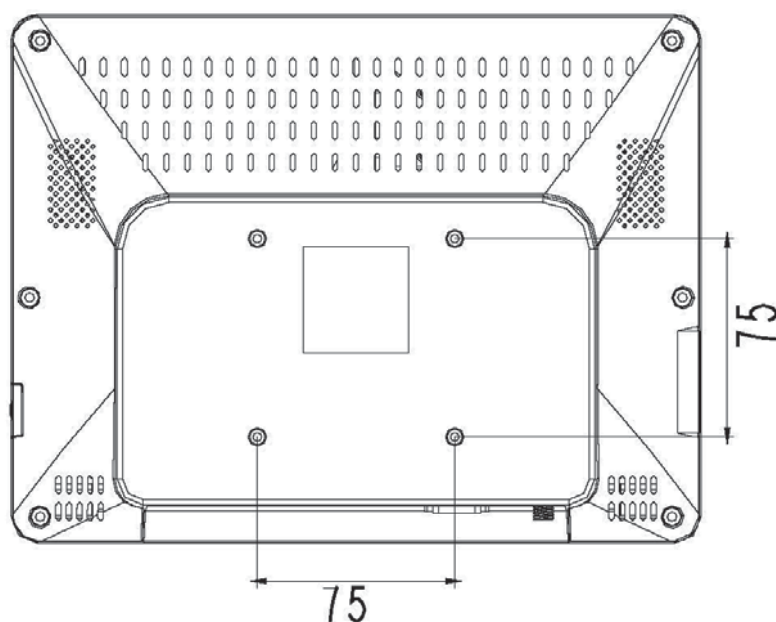
Figure 8 VESA Mounting Hole Locations

NOTE

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

■ **Wall Mount Kit**

■ Below are the demonstrations of how to use wall-mount kits

Step1

Secure the VESA kit to the panel PC using the 4 screws. (M4x5L flat head)
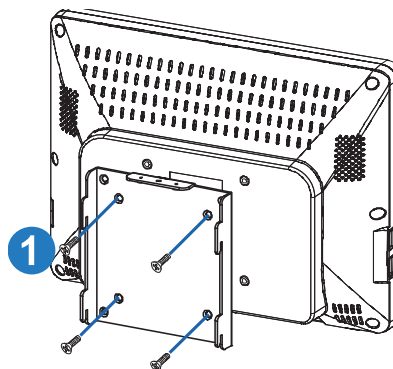
Step2

Install the wall-mount kit to the proper place of the wall by using the 6 screws.
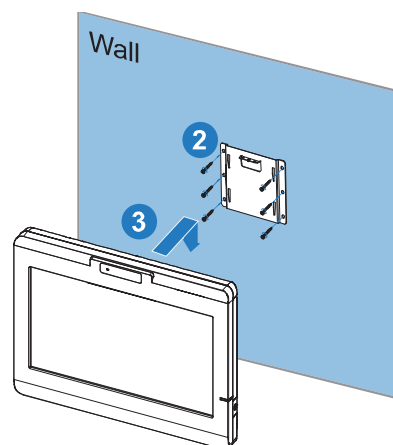
Step3

Attach the panel PC to the wall-mount kit which has been well fixed on the wall.
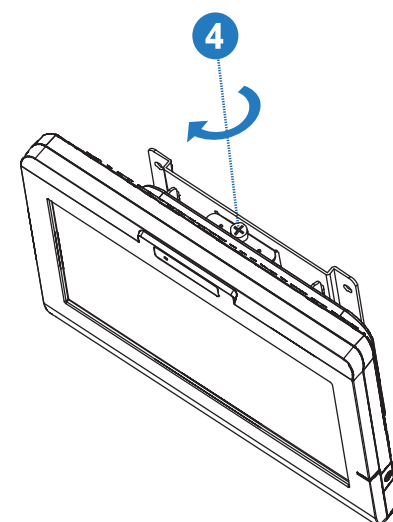
Step4

Secure the wall-mount kit and panel PC with screw by using Phillips Screwdriver

Figure 9 Wall Mounting Demonstrations

■ **Desktop Stand**

Step1
Assembling the desktop stand
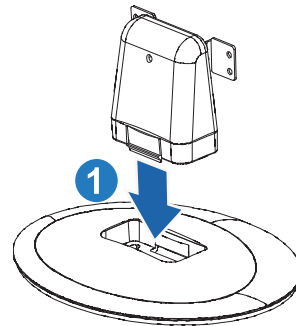
Step2
Secure the VESA kit to the desktop stand using the 4 screws. (M4x5L round head)
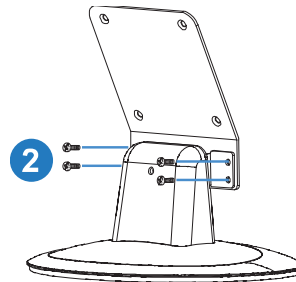
Step3
Secure the panel PC to the desktop stand using the 4 screws. (M4x5L flat head)
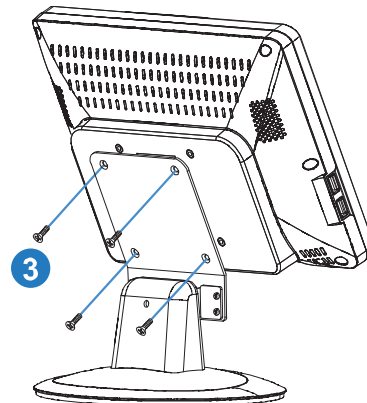
Figure 10 Install Desktop Stand

■ Operating System and Drivers

If your product does not come with an operating system pre-installed, you will need to install an operating system and the necessary drivers to operate it. After you have finished assembling your system and connected the appropriate power source, power it up using the power supply and install the desired operating system. For other operating systems, please contact us.

NOTE

1. To install the VGA driver, please double-click "Setup.exe" which is under below folder. **\Intel VGA\Utilities**

2. If your system goes into suspend mode, please push the power button for 2 seconds to wake up the system.

■ Maintenance and Prevention

Your HPC-1050 system requires minimal maintenance and care to keep it operating correctly.

- ■ Occasionally wipe the system with a soft dry cloth.
- ■ You should only remove persistent dirt by use of a soft, slightly damp cloth (use only a mild detergent).
- ■ Make sure the ventilation holes are clear of debris.

CAUTION

Do **NOT** do any of the following:

- ■ Allow water to enter the computer
- ■ Use a heavily dampened cloth
- ■ Spray water directly inside of computer

Chapter 3

AMI BIOS Setup

■ Overview

This chapter provides a description of the AMI BIOS. The BIOS setup menus and available selections may vary from those of your product. For specific information on the BIOS for your product, please contact us.

NOTE: The BIOS menus and selections for your product may vary from those in this chapter. For the BIOS manual specific to your product, please contact us

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AMI's ROM BIOS provides a built-in Setup program, which allows the user to modify the basic system configuration and hardware parameters. The modified data will be stored in a battery-backed CMOS, so that data will be retained even when the power is turned off.   In general, the information saved in the CMOS RAM will not need to be changed unless there is a configuration change in the system, such as a hard drive replacement or when a device is added.

It is possible for the CMOS battery to fail, which will cause data loss in the CMOS only. If this happens you will need to reconfigure your BIOS settings.

■ Main Menu

The BIOS Setup is accessed by pressing the DEL key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins. Once you enter the BIOS Setup Utility, the Main Menu will appear on the screen. The Main Menu provides System Overview information and allows you to set the System Time and Date. Use the "<" and ">" cursor keys to navigate between menu screens.

Table 2 BIOS Main Menu

BIOS SETUP UTILITY					
Main	Advanced	Power	Security	Boot	Save & Exit

Product Information

Product Name	HPC-1050	
BIOS Version	R1.00 (x64)	
BIOS Build Date	03/26/2015	
TXE FW Version	01.01.00.1089	

CPU Information
Intel® Celeron® CPU J1900@1.99GHz

Microcode Revision	811	
Processor Cores	4	

→ ← Select Screen
↑↓ Select Item
Enter: Select
+- Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4 Save & Exit
ESC Exit

Memory Information

Total Size	2048 MB (DDR3L)
Frequency	1333 MHz
System date	[Sun 02/15/2015]
System time	[13:23:12]
Access Level	Administrator

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■ Advanced Menu

Table 3 Advanced Menu

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit
Onboard LAN1 Controller		[Enabled]			
Onboard LAN1 Boot		[Disabled]			
Onboard LAN2 Controller		[Enabled]			
Onboard LAN2 Boot		[Disabled]		→ ← Select Screen	
Audio Controller		[Enabled]		↑↓ Select Item	
				Enter: Select	
> Display Configuration				+- Change Opt.	
> Super IO Configuration				F1: General Help	
> CPU Chipset Configuration				F2: Previous Values	
> SATA Configuration				F3: Optimized Defaults	
> USB Configuration				F4 Save & Exit	
> H/W Monitor				ESC Exit	
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Onboard LAN 1 Controller

Options: Disabled, Enabled

Onboard LAN 1 Boot

Options: Disabled, Enabled

Onboard LAN 2 Controller

Options: Disabled, Enabled

Onboard LAN 2 Boot

Options: Disabled, Enabled

Audio Controller

Options: Disabled, Enabled

Table 4 Advanced Menu – Display Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit

Display Configuration		→ ← Select Screen
		↑↓ Select Item
Primary Display	[Auto]	Enter: Select
UMA Frame Buffer Size	[256 MB]	+- Change Opt.
DVMT Pre-Allocated	[64M]	
DVMT Total Gfx Mem	[256 M]	F1: General Help
		F2: Previous Values
Primary IGFX Boot Display	[VBIOS Default]	F3: Optimized Defaults
Active LVDS	[Enabled]	
LVDS Panel Type	[1024x600 18Bit 1CH]	F4 Save & Exit
LVDS Backlight Control Mode	[Valtage]	ESC Exit
LVDS Backlight Control - Voltage	[2.5 V]	
		→ ← Select Screen
		↑↓ Select Item
		Enter: Select
		+- Change Opt.
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit
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Primary Display

Options: Auto, IGD

UMA Frame Buffer Size

Options: 128MB, 256MB, 512MB

DVMT Pre-Allocated

Options:64M, 96M, 128M, 160M, 192M, 224M, 256M, 288M, 320M, 352M, 384M, 416M, 448M, 480M, 512M

DVMT Total Gfx Mem

Options: 128M, 256M, MAX

Primary IGFX Boot Display

Options: VBIOS Default, CRT, HDMI, LVDS

Active LVDS

Options: Enabled

LVDS Panel Type

Options: 1024x600 18Bit 1CH

LVDS Backlight Control Mode

Options: Valtage

LVDS Backlight Control -Voltage

Options: 0.0V ; 0.5V ; 1.0V ; 1.5V ; 2.0V ; 2.5V ; 3.0V ; 3.5V ; 4.0V ; 4.5V ; 5.0V

Table 5 Advanced Menu –Super IO Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit

Super IO Chip Parameters.

>Serial Port 1 Configuration
>Serial Port 2 Configuration

→ ← Select Screen
↑↓ Select Item
Enter: Select
+- Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4 Save & Exit
ESC Exit

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Table 6 Advanced Menu – Super IO Configuration – Serial Port 1 Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit

Serial Port 1 Configuration

Serial Port   [Enabled]

Device Settings   IO=3F8h ; IRQ=4;

Change Settings   [Auto]

Serial Port 1 Type   [RS485]

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save and Exit
ESC: Exit

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Serial Port

Options: Disabled, Enabled

Change Settings

Options: Auto,

IO=3F8h; IRQ=4;

IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

Serial Port Type

Options: RS232, RS422, RS485

Table 7 Advanced Menu – Super IO Configuration – Serial Port 2 Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit

Serial Port 2 Configuration		→←: Select Screen
		↑↓: Select Item
Serial Port	[Enabled]	Enter: Select
Device Settings	IO=2F8h ; IRQ=3;	+/-: Change Opt.
		F1: General Help
Change Settings	[Auto]	F2: Previous Values
Serial Port 2 Type	[RS485]	F3: Optimized Defaults
		F4: Save and Exit
		ESC: Exit

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Serial Port

Options: Disabled, Enabled

Change Settings

Options: Auto,

IO=2F8h; IRQ=3;

IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

Serial Port Type

Options: RS232, RS422, RS485

Table 8 Advanced Menu –CPU Chipset Configuration

BIOS SETUP UTILITY						
Main	**Advanced**	Power	Security	Boot	Save & Exit	

		→ ← Select Screen
CPU Chipset Configuration		↑↓ Select Item
		Enter: Select
EIST	[Enabled]	+- Change Opt.
Turbo Mode	[Enabled]	F1: General Help
Limit CPUID Maximum	[Disabled]	F2: Previous Values
Execute Disabled Bit	[Enabled]	F3: Optimized Defaults
Intel Virtualization Technology	[Disabled]	F4 Save & Exit
		ESC Exit

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EIST

Options: Disabled, Enabled

Turbo Mode

Options: Disabled, Enabled

Limit CPUID Maximum

Options: Disabled, Enabled

Execute Disable Bit

Options: Disabled, Enabled

Intel Virtualization Technology

Options: Disabled, Enabled

Table 9 Advanced Menu –SATA Configuration

BIOS SETUP UTILITY						
Main	**Advanced**	Power	Security		Boot	Save & Exit

SATA Configuration		→ ← Select Screen
Serial-ATA (SATA)	[Enabled]	↑↓ Select Item
SATA Mode	[AHCI Mode]	
		Enter: Select
Serial ATA Port 1	Empty	+- Change Opt.
Port 1	[Enabled]	
mSATA Port 1	Empty	F1: General Help
Port 1	[Enabled]	F2: Previous Values
		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit

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SATA

Options: Disabled, Enabled

SATA Mode

Options: IDE Mode, AHCI Mode

Serial ATA Port 1   Empty

■ **Port 1**

Options: Enabled, Disabled

mSATA Port 1   Empty

■ **Port 1**

Options: Enabled, Disabled

Table 10 Advanced Menu –USB Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Power	Security	Boot	Save & Exit

USB Configuration	→ ← Select Screen
	↑↓ Select Item
USB Devices:	Enter: Select
1 Keyboard, 1 Mouse, 2 Hubs	+- Change Opt.
Legacy USB Support [Enabled]	F1: General Help
XHCI Legacy Support [Enabled]	F2: Previous Values
XHCI Hand-off [Enabled]	F3: Optimized Defaults
EHCI Hand-off [Disabled]	F4 Save & Exit
USB Mass Storage Driver Support [Enabled]	ESC Exit
XHCI Mode [Smart Auto]	
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Legacy USB Support

Options: Enabled, Disabled, Auto

XHCI Legacy Support

Options: Enabled, Disabled

XHCI Hand-off

Options: Enabled, Disabled

EHCI Hand-off

Options: Disabled, Enabled

USB Mass Storage Device Support

Options: Disabled, Enabled

XHCI Mode

Options: Enabled, Smart Auto

Table 11 Advanced Menu –H/W Monitor

BIOS SETUP UTILITY						
Main	**Advanced**	Power	Security	Boot	Save & Exit	

PC Health Status		→ ← Select Screen
		↑↓ Select Item
CPU Warning Temperature	[Disabled]	
CPU Temperature	: +43 C	Enter: Select
System Temperature	: +39 C	+- Change Opt.
		F1: General Help
+VCORE	: +0.853 V	
+VIN	: +12.164 V	F2: Previous Values
+5V	: +5.066 V	F3: Optimized Defaults
+VMEN	: +1.349 V	
		F4 Save & Exit
		ESC Exit

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CPU Warning Temperature

Options: Disabled, 80 C, 85 C, 90 C, 95 C

■ Power Menu

Table 12 Power Menu

BIOS SETUP UTILITY					
M a i n	**A d v a n c e d**	**P o w e r**	**S e c u r i t y**	**B o o t**	**S a v e & E x i t**

Power Configuration		
ACPI Sleep State	[S3 (Suspend to RAM)]	→ ← Select Screen
Restore AC Power Loss	[Power Off]	
Power Saving Mode	[Disabled]	↑↓ Select Item
		Enter: Select
Resume Event Control		
Resume from S3 By PS/2 Keyboard	[Disabled]	+- Change Opt.
Resume from S3 By PS/2 Mouse	[Disabled]	F1: General Help
Resume By PCIE Device	[Disabled]	F2: Previous Values
Resume By Ring Device	[Disabled]	F3: Optimized Defaults
Resume By RTC Alarm	[Disabled]	F4 Save & Exit
WatchDog Timer Configuration		ESC Exit

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ACPI Sleep State

Options: Suspend Disabled, S3 (Suspend to RAM)

Restore AC Power Loss

Options: Power Off, Power On, Last State

Power Saving Mode

Options: Disabled, EUP Enabled

Resume from S3 By PS/2 Keyboard

Options: Disabled, Enabled

Resume from S3 By PS/2 Mouse

Options: Disabled, Enabled

Resume By PCIE Device

Options: Disabled, Enabled

Resume By Ring Device

Options: Disabled, Enabled

Resume By RTC Alarm

Options: Disabled, Enabled

WatchDog Timer Configuration

■ **WDT Function**

Options: Disabled, Enabled

■ Security Menu

Table 13 Security Menu

BIOS SETUP UTILITY					
Main	Advanced	Power	**Security**	Boot	Save & Exit

Password Description	
If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup	→ ← Select Screen
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 the User will have Administrator rights	↑↓ Select Item
	Enter: Select
The password length must be in the following range:	+- Change Opt.
Minimum Length 3	F1: General Help
Maximum length 20	F2: Previous Values
	F3: Optimized Defaults
Administrator Password	F4 Save & Exit
User Password	ESC Exit
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■ Boot Menu

Table 14 Boot Menu

BIOS SETUP UTILITY					
Main	Advanced	Power	Security	**Boot**	Save & Exit

Boot Configuration

Full Screen LOGO Display	[Disabled]	→ ← Select Screen
Setup Prompt Timeout	1	↑↓ Select Item
Bootup NumLock State	[On]	Enter: Select
Keyboard Detect Warning	[Enabled]	+- Change Opt.
CSM Support	[Enabled]	F1: General Help
Boot Option Filter	[Legacy Only]	F2: Previous Values
Boot Option Priorities		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit

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Full Screen LOGO Display

Options: Disabled, Enabled

Bootup Numlock State

Options: On, Off

Keyboard Detect Warning

Options: Enabled, Disabled

CSM Support

Options: Enabled, Disabled

Boot Option Filter

Options: UEFI and Legacy, Legacy only, UEFI only

■ Save & Exit Menu

Table 15 Save & Exit Menu

BIOS SETUP UTILITY					
Main	Advanced	Power	Security	Boot	**Save & Exit**

Save Changes and Reset	→ ← Select Screen
Discard Changes and Reset	↑↓ Select Item
	Enter: Select
Save Options	+- Change Opt.
Save Changes	F1: General Help
Discard Changes	F2: Previous Values
	F3: Optimized Defaults
Restore Defaults	F4 Save & Exit
	ESC Exit

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Save Changes and Exit

Exit system setup after saving the changes. Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved to the CMOS RAM. The CMOS RAM is sustained by an onboard backup battery and stays on even when the PC is turned off. When you select this option, a confirmation window appears. Select [Yes] to save changes and exit.

Discard Changes and Exit

Exit system setup without saving any changes. Select this option only if you do not want to save the changes that you made to the Setup program. If you made changes to fields other than system date, system time, and password, the BIOS asks for a confirmation before exiting.

Discard Changes

Discards changes done so far to any of the setup values. This option allows you to discard the selections you made and restore the previously saved values. After selecting this option, a confirmation appears. Select [Yes] to discard any changes and load the previously saved values.

Load Optimal Defaults

Load Optimal Default values for all the setup values. This option allows you to load optimal default values for each of the parameters on the Setup menus, which will provide the best performance settings for your system. The F9 key can be used for

this operation.

Load Failsafe Defaults

Load Optimal Default values for all the setup values. This option allows you to load failsafe default values for each of the parameters on the Setup menus, which will provide the most stable performance settings. The F8 key can be used for this operation.

Chapter 4

Driver Installation

If your HPC-1050 does not come with an operating system pre-installed, you will need to install an operating system and the necessary drivers to operate it. After you have finished assembling your system and connected the appropriate power source, power it up using the power supply and install the desired operating system.

You can download the drivers for the HPC-1050 from our website and install as instructed there. For other operating systems, please contact us.