Heavy Duty Panel PC Series User Manual

NO. G03-PPCQIG02-F

Revision: 2.0

Release date: October 1, 2019

Trademark:

Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. To minimize pollution and ensure environment protection of mother earth, please recycle.

Safety Instruction

- Operate the product according to the correct installation steps and with great care to make sure safety and comfort using experience. Please refer to the following safety instruction guide to avoid danger of electric shock or fire. Abide by the previous safety instruction guide to use and maintain the product and the hard disk to make sure of safe operating environment.
- Please follow the instruction manual for operation guide.
- The appropriate operating temperature ranges from 0 °C–50 °C.
- The operation humidity for this product is 5% to 80% RH.
- To avoid high temperature, please DO NOT overload the maximum power of the external power supply while the system is consuming high voltage. Be aware of the maximum temperature allowance of the power supply.
- See to it that the product is not working near the water.
- Always unplug power cable and other hardware cables from the system before cleaning.
- Apply only dry cloth for cleansing the product.
- Make sure that there is no heat source nearby when the product is working.
- Make sure that the thermal louver of the product is not blocked.
- Make sure to remove the power plug from the product when there is a thunder storm.
- Please remove the power plug from the product when you are not going to use the product for a long time.
- Make sure to set up or use the product on a stable surface.
- Make sure not to drop the product or strike it by any means.
- Make sure not to move the product when the power is on.
- Make sure not to step on the power cables and other cables or rest anything in them..
- Please contact qualified technician for maintenance or repair.
- Use only accessories and parts that are made by the qualified manufacturer.

USER'S NOTICE

Manual Revision Information

Reversion	Revision History	Date
2.0	Second Edition	October 1, 2019

Item Checklist

- ☑ Panel PC
- ☑ Cable(s)
- ☑ Power Adapter
- ☑ Wifi Antenna

TABLE OF CONTENT

Chapter 1: Introduction

1-1 Product Features

- Onboard Intel® Bay Trail series SoC processor, with low power consumption never denies high performance
- Onboard 4GB DDR3L 1333Mhz SO-DIMM
- Support 1 * 2.5" SATA HDD Device, 1* Mini PCIe, 1* M.2 connector
- Support dual Gigabit LAN
- Support 4G SIM card socket
- Support VGA output
- Support 802.11 b/g/n WiFi communication
- Support multiple COM ports
- IP65-rated front bezel
- Aluminum front panel structure; SECC steel foundation chassis
- Support 9~28V wide voltage range DC power-in
- Compliance with EuP Standard

The system has the following features besides other basic functions:

- ***WiFi:*** the Mini PCI-E onboard socket in the board is integrated a with a WiFi card(802.11 b/g/n) that can act as a mini wireless modem when external antennas are connected. Different computers in the house can build wireless connections through the Mini TOP system and take necessary data from it, thus reducing the complexity in network establishment.
- ***Giga LAN***: The system is integrated with Gigabit LAN network controller with ACPI management realizing efficient power management for the operating system.
- ***USB2.0***: The system supports USB 2.0 function compatible for both USB 2.0 devices and USB 1.1 interface devices. Users can enjoy high speed data transmission rate up to 480Mb/s. Users can also connect USB 2.0 storage device to the system to create a data bank for storage of download movies.
- ***USB3.0***: Experience Fastest data transfers at 5Gb/s with USB3.0 the new latest connectivity standard. Built connect easily with nextgeneration components and peripherals, USB3.0 transfers data 10x faster and backward compatible with previous USB2.0 components.
- ***CPU Usage:*** The CPU Usage diagram shows a beautiful data curve that indicates a pretty low CPU usage percentage for video playback of different formats. GPU performances are excellent as well.
- ***dB Value:*** The design of the system takes into consideration the needed quiet operating environment in the living room and the average dB value is below 26 under normal operation to ensure the tranquility when you are absorbed in film watching.

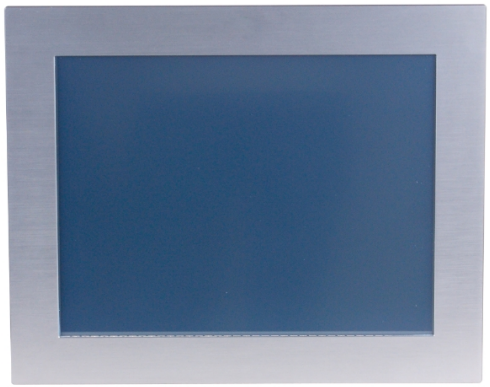
1-2 Specification

Spec	Description
CPU	● Intel® Bay Trail series SoC processor
Memory	● Onboard 4GB DDR3L 1333MHz SO-DIMM
Expansion Slot	● 1 * PCI-E mini card for WIFI or 4G/3G
Storage	● 1 * 2.5” SATA HDD ● 1 * M.2 connector (2242/2260/2280)
LAN	● 2* Intel® i211AT GbE ● Support Fast Ethernet LAN function of providing 10/100/1000Mbps Ethernet data transfer rate
HD Audio	● Realtek ALC662 HD Audio Codec integrated
Bottom I/O	● 2 * USB3.0 ● 4 * USB2.0 ● 2 * RS232/422/485 (Support 5V/12V Output) ● 2 * RS232（Support 5V/12V Output） ● 1 * CRT ● 2 * LAN (Intel® I211AT Gigabit LAN) ● 1 * Locking Jack 9~28V DC input ● 1 * Power button
Top I/O	● 2* WIFI antenna ● 2 * Speaker

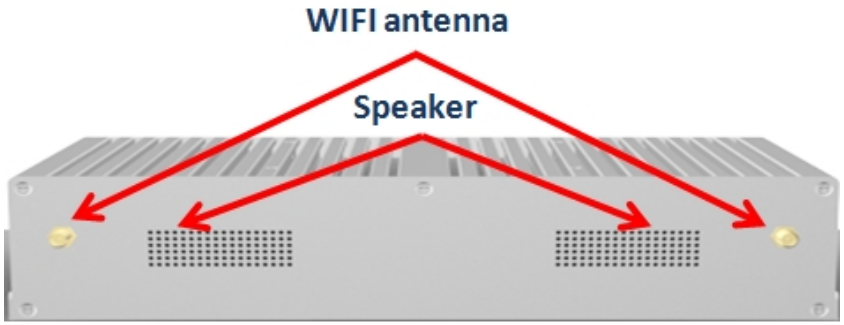
Chapter 2
Product Diagram

Notice: The following diagrams and photos in the manual serves as instruction purpose only and may differ from actual product. Please refer to the product you purchase for actual specification.

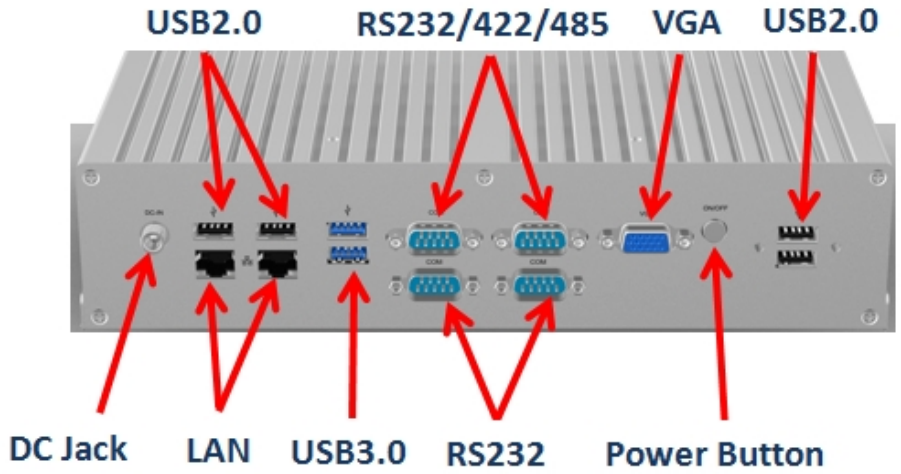
Front View Appearance



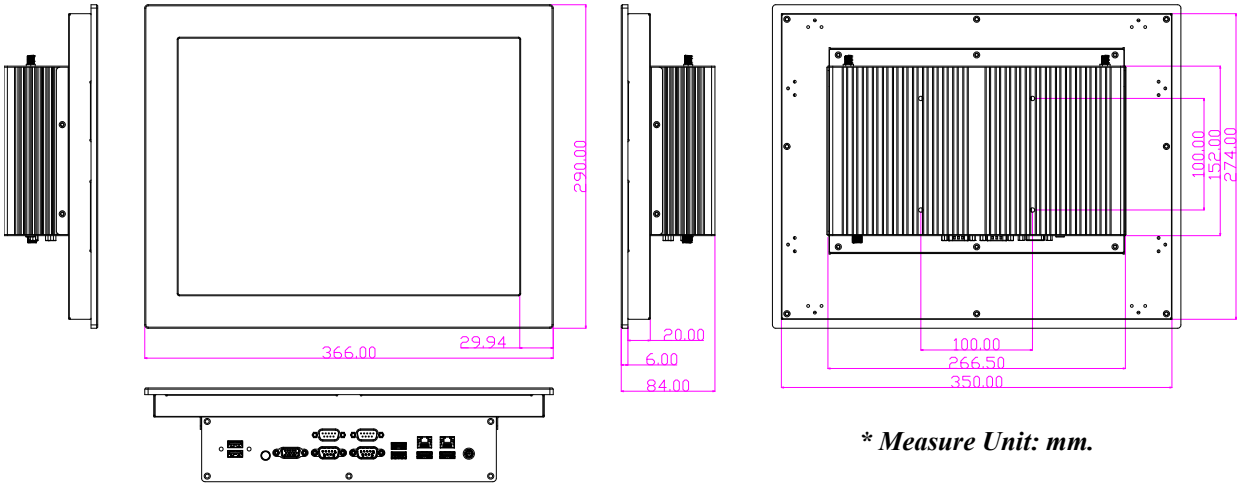
Top View



Bottom View

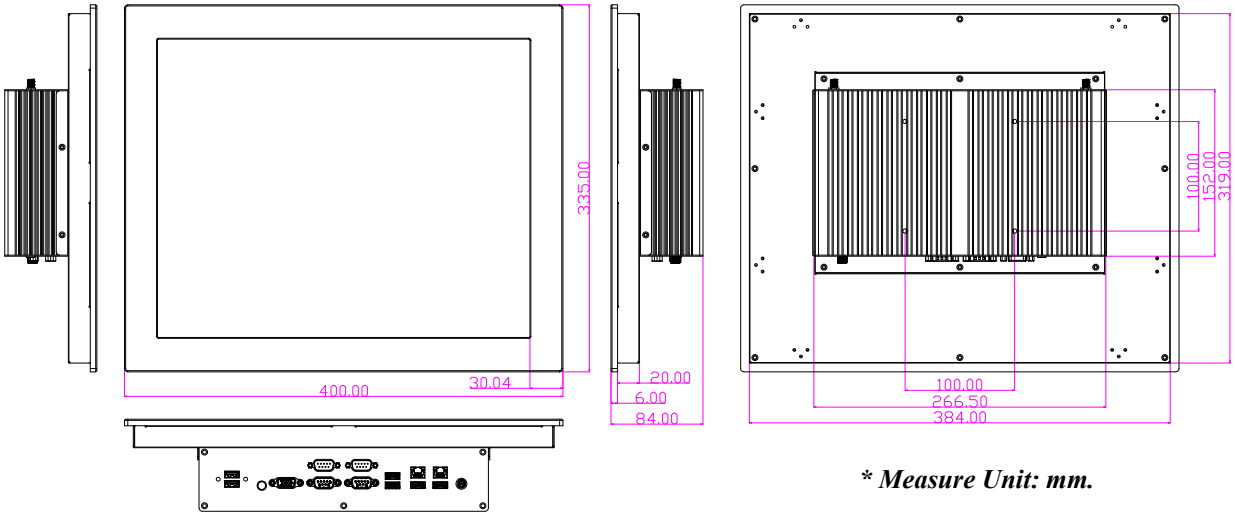


Product Dimension for HPC-150SR-HD1900B Series:



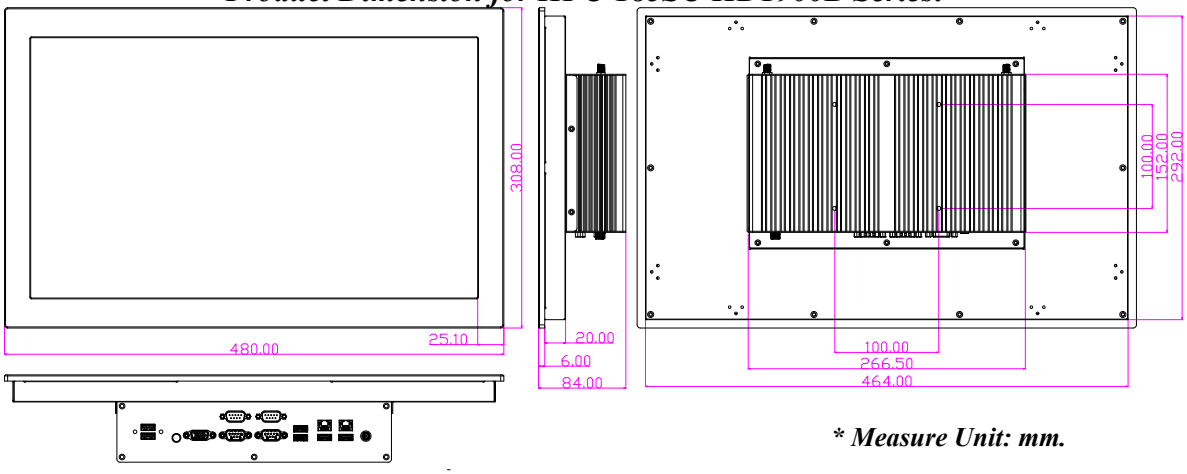
**** Measure Unit: mm.***

Product Dimension for HPC-170SR-HD1900B Series:



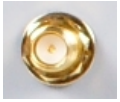
** Measure Unit: mm.*

Product Dimension for HPC-185SC-HD1900B Series:



** Measure Unit: mm.*

Part & Name & Function Description:

	**DC-in Jack**	9~24V DC-in Jack.
	**USB 2.0 Port**	To connect USB keyboard, mouse or other devices compatible with USB 2.0 specification.
	**RJ-45 LAN Port**	This connector is standard RJ-45 LAN jack for Network connection.
	**USB 3.0 Port**	To connect USB keyboard, mouse or other devices compatible with USB specification. USB 3.0 ports supports up to 5Gbps data transfer rate.
	**COM Port**	Mainly for user to connect external MODEM or other devices that supports Serial Communications Interface.
	**VGA Port**	To connect display device that support VGA specification.
	**Power Botton**	Press to turn on/off the system.
	**Wi-Fi antenna**	For better WI-FI reception.
	**Speaker**	Integrated speaker for audio output.

Chapter 3 Main Differences of the Models

Panel Size	Resolution	Brightness	Contrast Ratio	Touch Panel	Product Size
Model Name: HPC-150SR-HD1900B					
15''	1024 x 768	350 cd/m^2	800:1	5 Wires Analog Resistive	366 (L)* 290 (W)*84 (H)mm
Model Name: HPC-170SR-HD1900B					
17''	1280 x 1024	350 cd/m^2	1000:1	5 Wires Analog Resistive	400 (L)* 335 (W)*84 (H)mm
Model Name: HPC-185SC-HD1900B					
18.5''	1366 x 768	250 cd/m^2	1000:1	Projected Capacitive	480(L)* 308 (W)*84 (H)mm

Appendix

General Notices

European Union CE Marking and Compliance Notices

Products intended for sale within the European Union are marked with the Conformity European (CE) Making, which indicates compliance with the applicable Directive and European standards and amendments identified.

Shielded Cables Notice

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Peripheral Devices Notice

Only peripherals (input/out devices, terminals, printers, etc) certified to comply with Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

Wireless Related Information

Wireless Interoperability

Wireless LAN PCI Express Mini Card is designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CKK), and/or Orthogonal Frequency Division Multiplexing (OFDM) radio technology, and is compliant to:

The IEEE802.11a/b/g/n Standard on Wireless LANs was defined and approved by the Institute of Electrical and Electronics Engineers.

The Wireless Fidelity (WiFi) certification as defined by the Wi-Fi Alliance.

Usage Environment and Your Health

Wireless LAN PCI Express Mini Card emits radio frequency electromagnetic energy like other radio devices. However, the level of energy emitted is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Due to the fact that Wireless LAN PCI Express Mini Card operates within the guidelines found in radio frequency safety standards and recommendations, we believe the integrated wireless cards are safe for use by consumers. These standards and recommendations reflect the consensus of the scientific

community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.
In some situation or environment, the use of Wireless LAN PCI Express
Mini Card may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:
Using the integrated wireless cards on board of airplanes, or in hospitals
In any other environment that the risk of interference to other devices and service are perceived or identified to be harmful.
If you are uncertain of the policy that applies on the use of wireless devices in a specific organization (e.g., airport or hospital), you are encouraged to ask for authorization to use Wireless LAN PCI Express Mini Card prior to turning on the computer.

Electronic Emissions Notices

European Union Compliance Statement Class B Compliance

European Union – Compliance to the Electromagnetic Compatibility Directive

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. We cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the installation of option cards from other manufacturers.
This product has been tested and found to comply with the limits Class B Information Technology Equipment according to European Standard EN55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

Properly shielded and grounded cables and connectors must be used in order to reduce the potential for causing interference to radio and TV communications and to other electrical or electronic equipment.

FCC Rules and Regulations-Part 15

This devices uses, generates and radiates radio frequency energy. The radio frequency energy

produced by this device is well below the maximum exposure allowed by the Federal Communications Commission (FCC)

- This device complies with the limits for the Class B digital device pursuant to Part 15 subject to the following two conditions:
- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

The FCC limits are designed to provide reasonable protection against harmful interference when the equipment is installed and used in accordance with the instruction manual and operated in a commercial environment. However, there is no guarantee that interference will not occur in a particular commercial installation, or if operated in a residential area.

If harmful interference with radio or television reception occurs when the device is turned on, the user must correct the situation at the user's own expense. The user is encouraged to try one or more of the following corrective measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that on which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Intel could void the user's authority to operate this device.