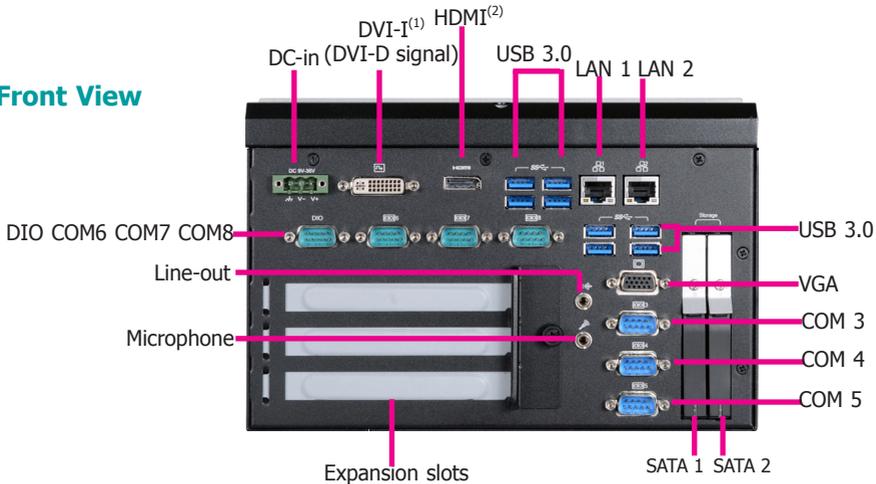


EC531-KH/EC532-KH Installation Guide

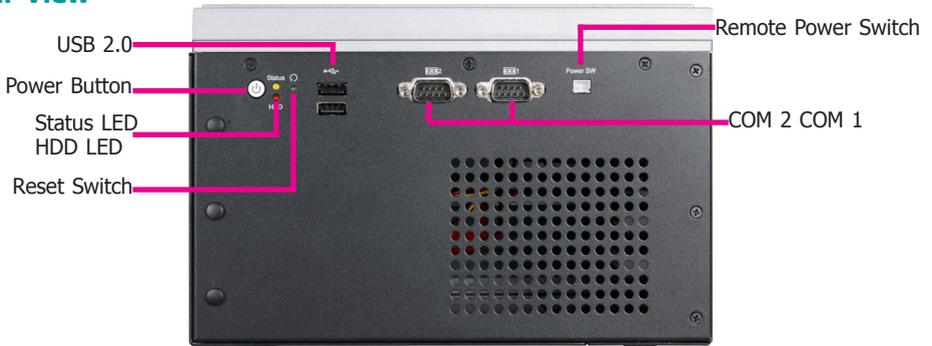
Package Contents

- 1 EC531-KH/EC532-KH system unit
- 1 Quick Installation Guide
- 1 CD disk includes:
 - Drivers / Manual

Front View



Rear View



Notes:

1. This port can be in HDMI or DVI-D (DVI available upon request).
2. This port is a DP/HDMI combo port but can only transmit either HDMI or DP signals (as indicated on the panel). Please plug in a DP or an HDMI cable with the right orientation and alignment to avoid damage to the connector. You should feel resistance (due to a pin on the right) if the cable is not inserted correctly. For detailed instructions, see <https://youtu.be/SUj07rFN5i8>.

Installing a 2.5" SATA Drive

The SATA drive bay can be easily accessed without opening the system. However, the system does not support hot-swapping hard drives; turn off the system first before proceeding with the following procedure for installing a SATA drive.

1. Locate the drive bay on the front panel and open it by releasing the handle.



SATA drive bay
SATA 1 SATA 2

2. Slide the HDD into the drive bay. Note that the HDD should be positioned vertically with the SATA power connector on top of the data connector to correctly engage with the system's SATA connectors. Then close the drive bay and lock the handle.

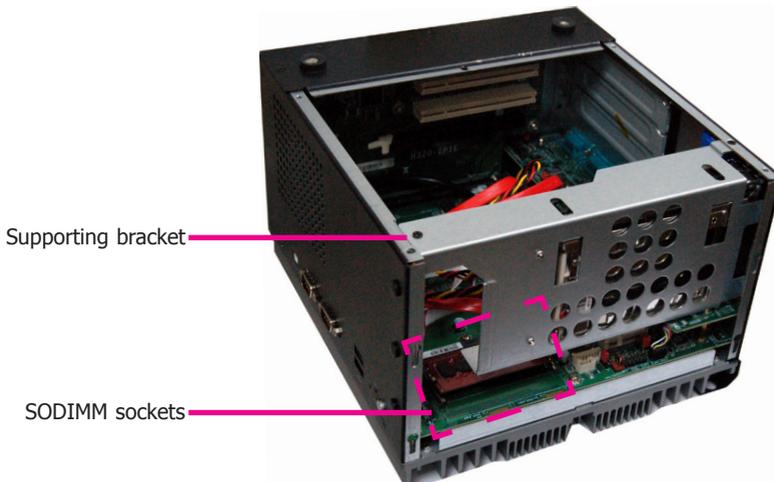
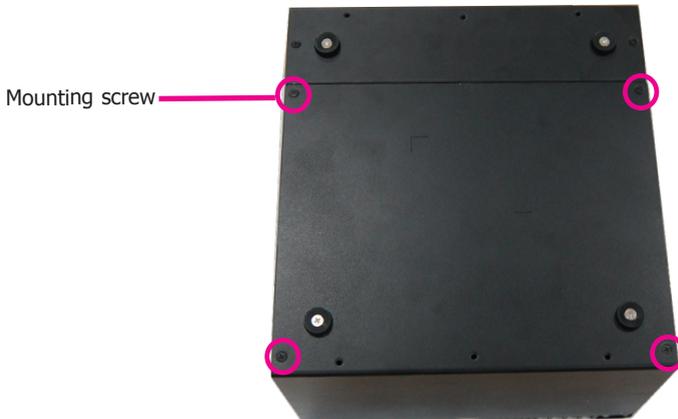


Notes:

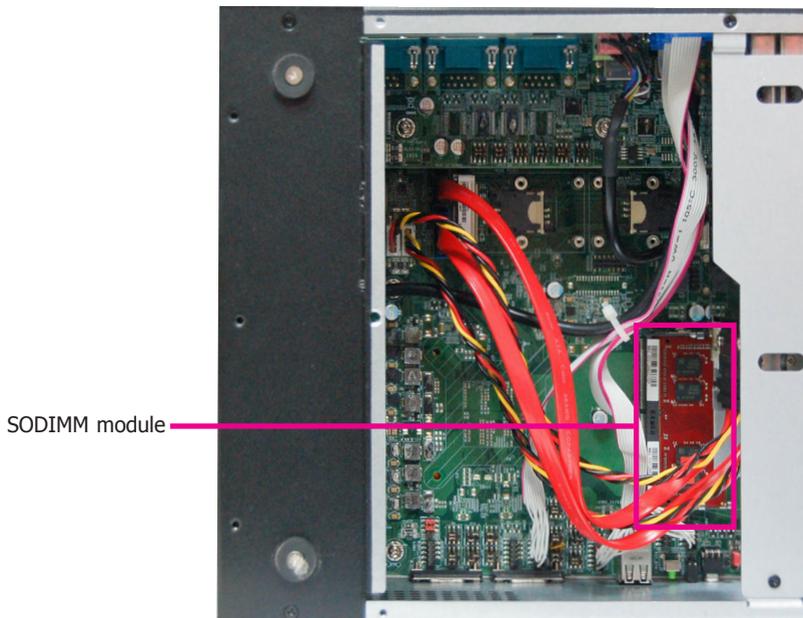
1. The slot is designed to exactly fit a 2.5" SATA drive with 7mm thickness; it cannot fit SATA drives with other sizes.
2. Do not force to close the drive bay if the HDD is not correctly inserted.

Installing a SODIMM

1. The SODIMM sockets are located on the system board. You need to remove the system cover first. Before working inside your system, observe the following precautions:
 - (1) Make sure the system and all other peripherals connected to it have been powered off.
 - (2) Disconnect all power cords and external cables.
2. The 4 mounting screws on the bottom of the system are used to secure the cover to the chassis. Remove these screws and put them in a safe place for later use.
3. The SODIMM sockets are under the supporting bracket.



To install a SODIMM module, grasp the module by its edges and align the module's notch with the socket's notch; then insert the module into the socket at an angle and push it down until you feel a click.



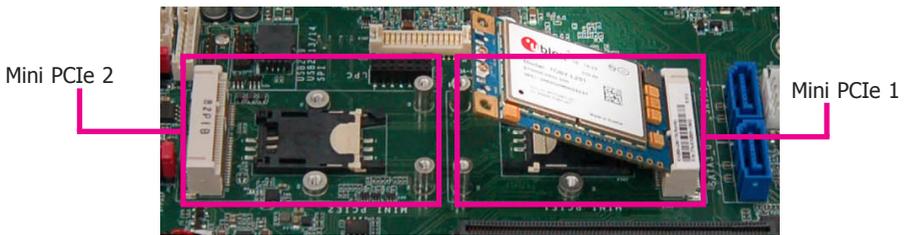
Notes:

1. The system supports dual-channel configuration. To enable dual-channel, populate both SODIMM sockets.
2. The SODIMM sockets can only accept DDR4 memory modules (Skus with Intel® CM238 chipset support ECC). Please do not install other types of memory modules.

Installing a Mini PCIe Card

The system board is equipped with 2 Mini PCIe slots with Mini SIM card sockets to support a variety of wireless LAN and mobile broadband communication modules. Mini PCIe slot 1 provides both USB and PCIe interfaces whereas Mini PCIe slot 2 provides only USB interface.

1. Grasp the Mini PCIe card by its edges and align the notch in the connector of the Mini PCIe card with the notch in the connector on the system board.

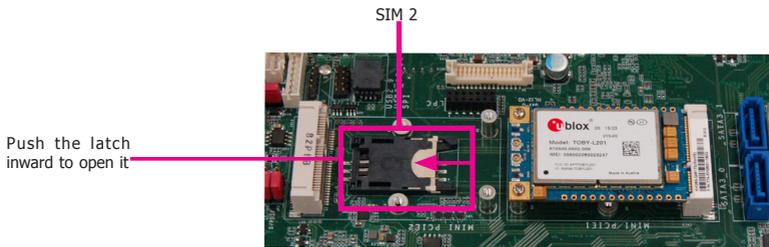


2. Push down the other end of the card and secure it on the board with the provided mounting screw.

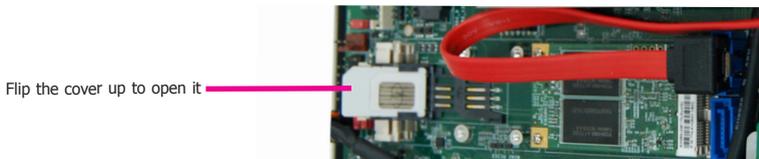


Installing a SIM Card

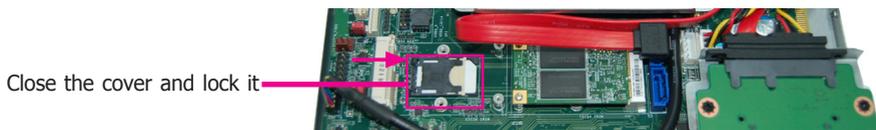
Open the SIM card socket by pushing the white latch inward.



Insert the SIM card into the slot. Please place the card with the IC facing down and the angled corner aligning with the socket's angled corner so it will be correctly in contact with the system board.



Close the slot's cover and lock the slot by pushing the white latch outward.



Installing an M.2 Card

The onboard M.2 Type 2280 connector (M Key) supports PCIe NVMe modules up to PCIe Gen 3.0 x4 bandwidth. Note that only SKUs with Intel® QM175 Chipset support M.2 socket.



To install an M.2 card, insert the bottom edge of the M.2 card into the connector, and then secure the card to the standoff with the provided mounting screw.



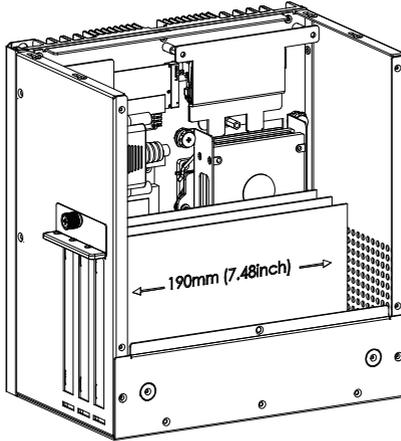


Installing a PCI or PCIe Expansion Card

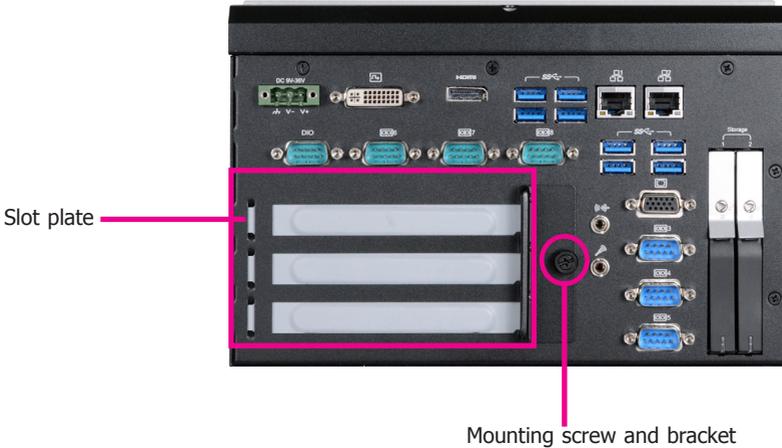


Important:

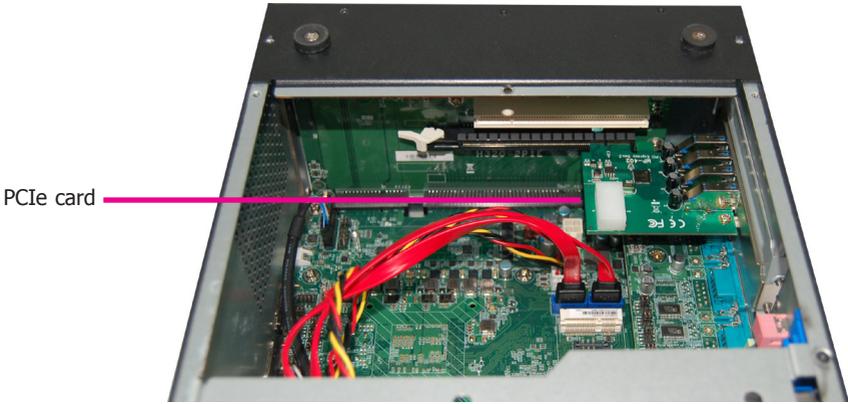
When inserting expansion cards into the system unit, please select a standard card within 190mm (as shown in the picture below) in order to fit expansion slots.



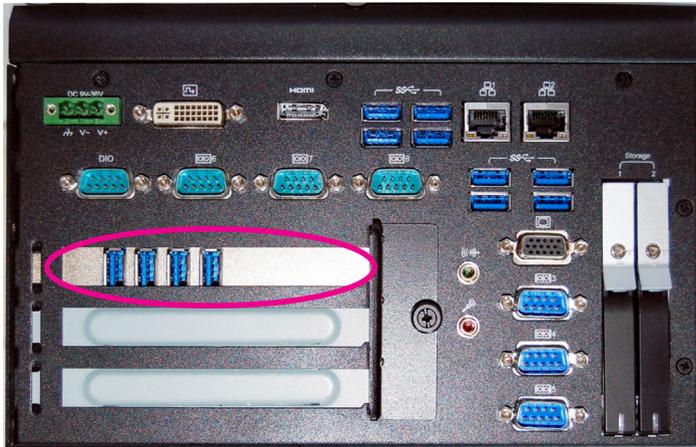
1. PCI and PCIe slots on the riser card inside the system are used to install expansion cards. To install an expansion card, you need to first remove the slot plates and bracket by uninstalling the mounting screws on the rear chassis.



2. Insert the expansion card into a PCI or PCIe slot on the riser card and secure the bracket in place.



Rear View

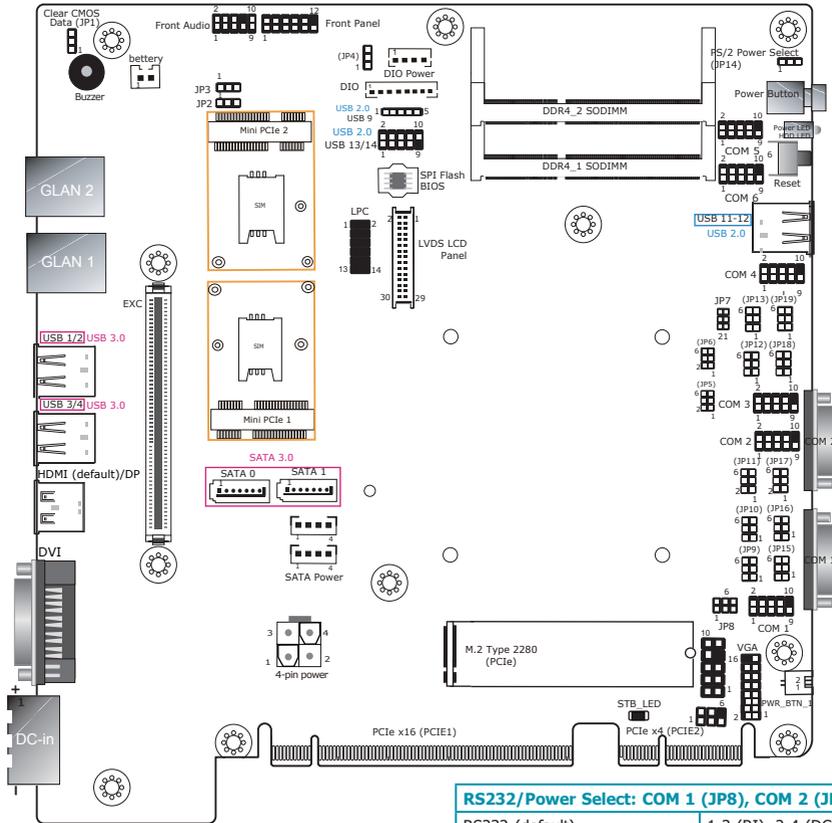


Note:

The EC531-KH has one PCIe x16 slot and two PCI slots with the H320-2P1E card, whereas the EC532-KH has one PCI slot and two PCIe x16 slots with the H320-1P2E card.



Board Layout and Jumper Settings



Clear CMOS Data	JP1
Normal (default)	1-2 On
Clear CMOS Data	2-3 On

DIO bit 0~3 Pull-up/Pull-down Selection	JP3
Pull-up	1-2 On
5V/5V_Standby	
Pull down GND	2-3 On

DIO bit 4~7 Pull-up/Pull-down Selection	JP2
Pull-up	1-2 On
5V/5V_Standby	
Pull down GND	2-3 On

DIO bit 0~7 Power Source selection	JP4
5V_Standby	1-2 On
5V	2-3 On

PS/2 KB/MS Power source	JP14
5V	1-2 On
5V_Standby	2-3 On

RS232/Power Select: COM 1 (JP8), COM 2 (JP7)	
RS232 (default)	1-3 (RI), 2-4 (DCD) On
RS232 with power	3-5 (+5V), 4-6 (+12V) On

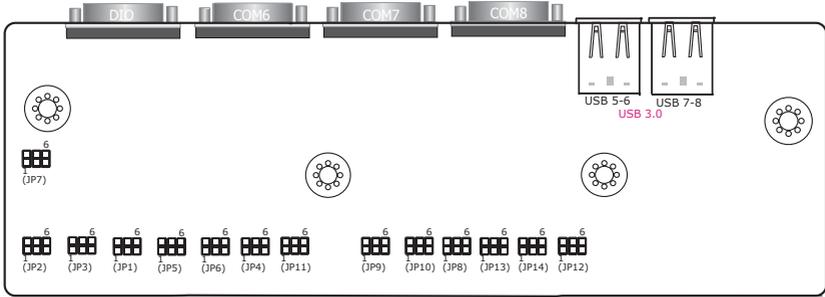
RS232/422/485 Select: COM 1 (JP10), COM 2 (JP16) COM 3 (JP13), COM 4 (JP5)	
RS232 (default)	1-3, 4-6 On
RS422 Full Duplex	3-5, 4-6 On
RS485	3-5, 2-4 On

RS232/422/485 Select: COM 1 (JP9/JP15), COM 2 (JP11/JP17) COM 3 (JP12/JP18), COM 4 (JP6/JP19)	
RS232 (default)	1-3, 2-4 On
RS422 Full Duplex/RS485	3-5, 4-6 On

Notes:

- When COM1 RS232/422/485 is selected, JP9 and JP15 must be set in accordance to JP10.
- When COM2 RS232/422/485 is selected, JP11 and JP17 must be set in accordance to JP16.
- When COM3 RS232/422/485 is selected, JP12 and JP18 must be set in accordance to JP13.
- When COM4 RS232/422/485 is selected, JP6 and JP19 must be set in accordance to JP5.

I/O board



RS232/Power Select: COM 6 (JP7), COM 7 (JP11)	
RS232 (default)	1-3 (RI), 2-4 (DCD) On
RS232 with power	3-5 (+5V), 4-6 (+12V) On

RS232/422/485 Select: COM 8 (JP12)	
RS232 (default)	1-2 On
RS422 Full Duplex	3-4 On
RS485	5-6 On

RS232/422/485 Select: COM 6 (JP1), COM 7 (JP8)	
RS232 (default)	1-2 On
RS422 Full Duplex	3-4 On
RS485	5-6 On

RS232/422/485 Select: COM 8 (JP13/JP14)	
RS232 (default)	1-3, 2-4 On
RS422 Full Duplex/RS485	3-5, 4-6 On

RS232/422/485 Select: COM 6 (JP2/JP3), COM 7 (JP9/JP10)	
RS232 (default)	1-3, 2-4 On
RS422 Full Duplex/RS485	3-5, 4-6 On

Notes:

1. When COM 6 RS232/422/485 is selected, JP2 and JP3 must be set in accordance to JP1.
2. When COM 7 RS232/422/485 is selected, JP9 and JP10 must be set in accordance to JP8.
3. When COM 8 RS232/422/485 is selected, JP13 and JP14 must be set in accordance to JP12.