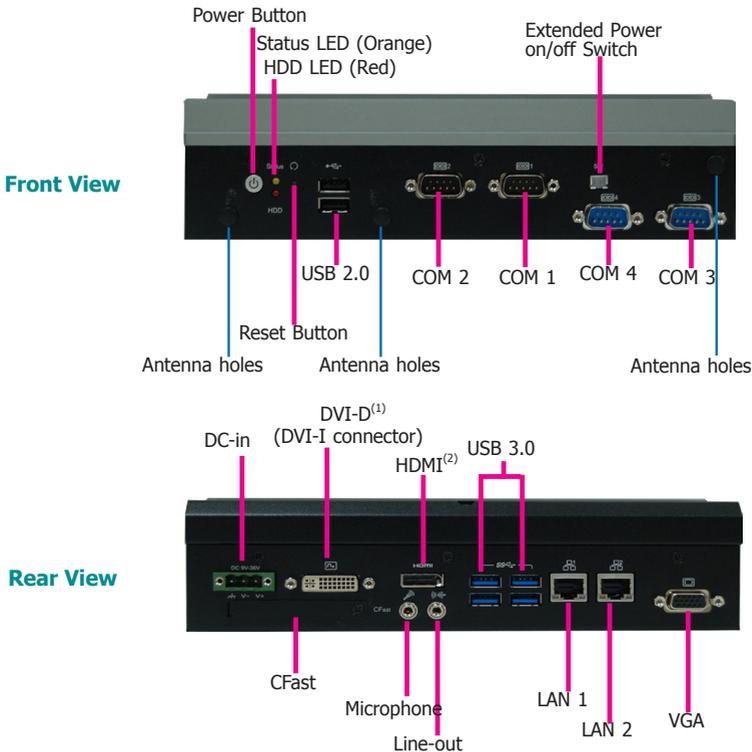


EC500-KH Installation Guide

Package Contents

- One EC500-KH system unit
- Mounting screws for SATA drive
- Mounting screws for Mini PCIe and M.2 modules

Panel



Notes:

1. This port can be in HDMI or DVI-D.
2. The HDMI is a DP++/HDMI combo port but can only transmit HDMI signals (unless wired as a DP++ port). Please plug in 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.

Aligning side (left)



Angled-corner pin

Angled-corner (up)



Align this edge with the left side of the connector

Removing the Chassis Cover

Please observe the following guidelines before starting any installation procedures.

1. Make sure the system and all other peripherals connected to it have been powered off.
2. Disconnect all power cords and cables.

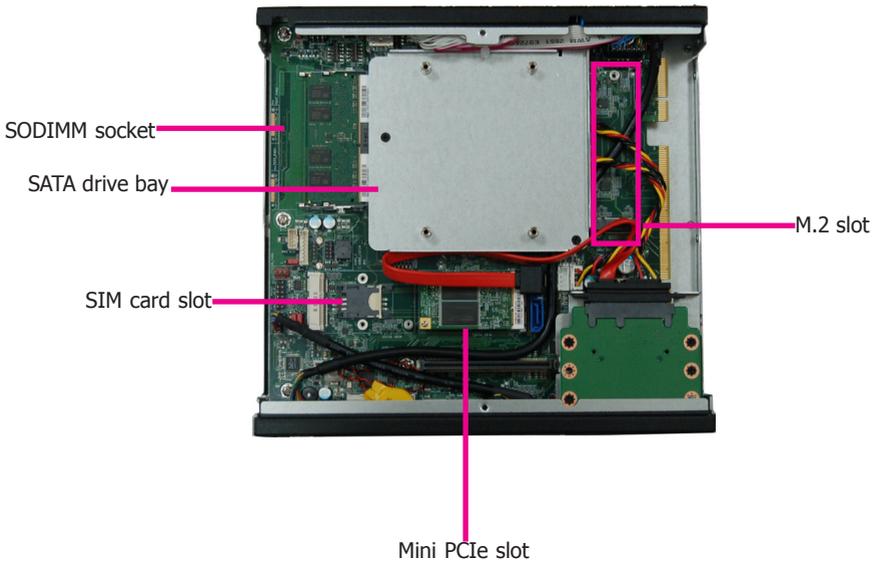
To open the system, remove the 6 mounting screws on the on the left side, right side and bottom of the system. Put them in a safe place for later use.



3. Lift the cover upward to open the system.



4. The SODIMM sockets, Mini PCIe and M.2 slots and SATA drive bay can be easily accessed after the chassis cover is removed.



Installing a SODIMM

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

Insert the memory at an angle



SODIMM module installed into the socket

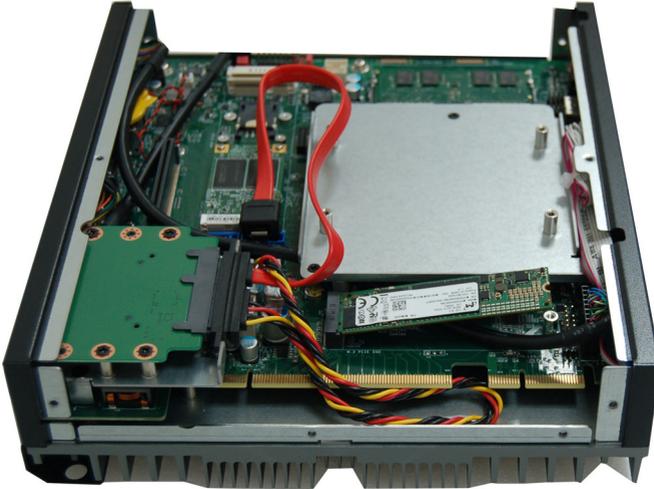


Notes:

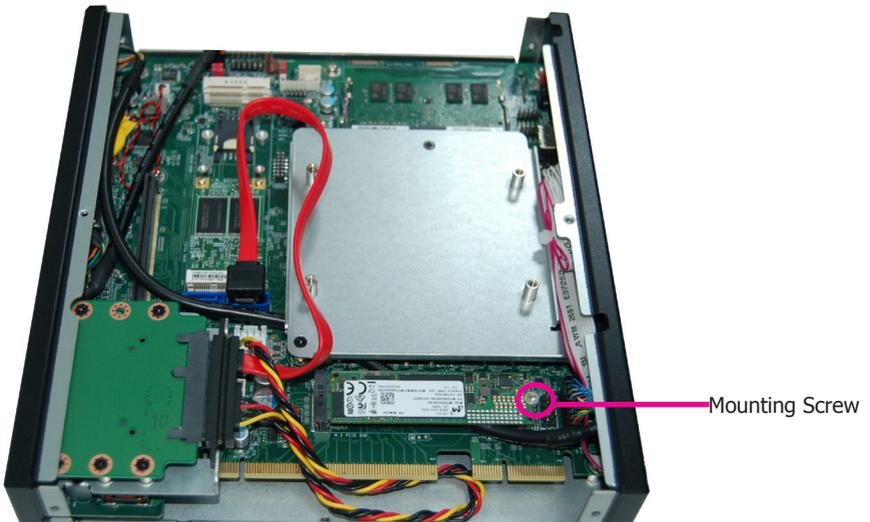
1. The system supports dual-channel configuration. To enable dual-channel, populate both SODIMM sockets.
2. If installing only one memory module, please install it on the memory socket labeled DIMM 1 (the one closer to the center of the board).
3. The SODIMM sockets can only accept DDR4 memory modules. Please do not install other types of memory modules. The SKUs with Intel® CM238 Chipset support ECC memory.

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.

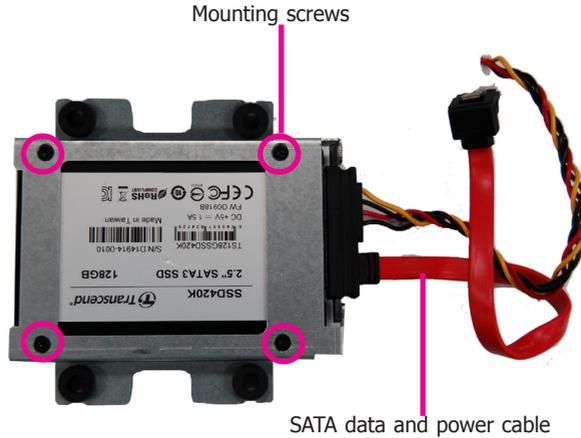


Installing a 2.5" SATA Drive

The system can accommodate one SATA drive. Please use the following procedure to install a SATA drive in the system.

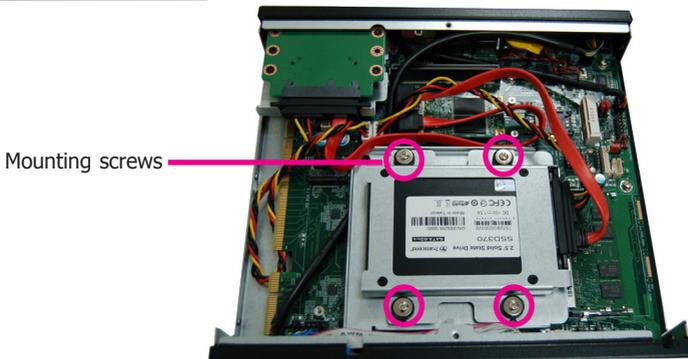
1. Before installing the SATA drive, connect the SATA data and power cable to the SATA data connector of the SATA drive. Then install the SATA drive onto the HDD bracket with the provided mounting screws.

Mounting Screws



2. Place the SATA drive installed with the HDD bracket in the system. Align the mounting holes on the HDD bracket with the mounting holes on the drive bay and use the provided mounting screws to secure the drive in place.

Mounting Screws



3. Connect the other end of the SATA data and power cable to the SATA data and power connectors on the system board respectively.

SATA data connector

SATA power connector



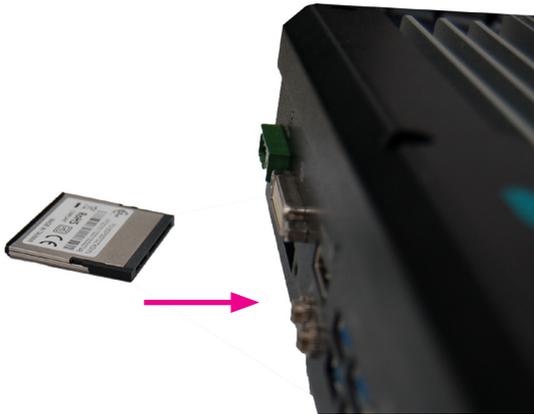
Installing a CFast Card

The CFast slot is located on the rear panel and can be accessed without opening the system chassis.

1. Before installing a CFast card, take off the CFast card slot cover.



2. Gently insert the CFast card straight with the label on the CFast card facing up until you feel it lock into place. Do not force the card into the slot if the card is not correctly inserted.



3. Close the CFast card cover. To eject the card, push the card inward to release the lock and pull it out.



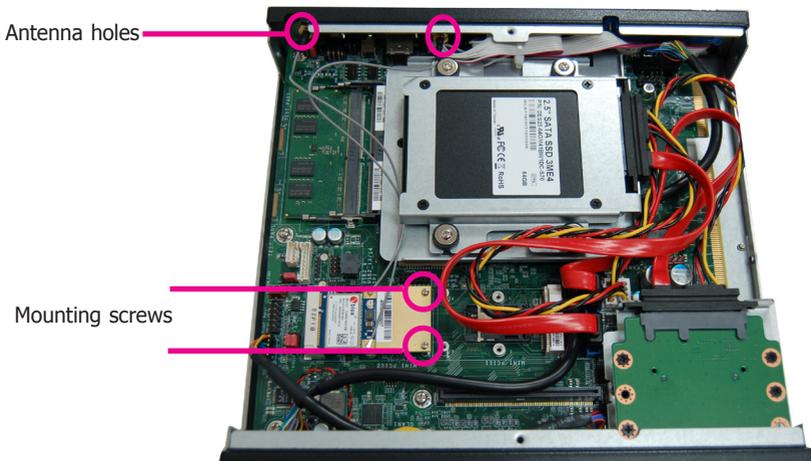
Installing a Mini PCIe Card and a SIM Card

The system board is equipped with 2 Mini PCIe slots with 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.



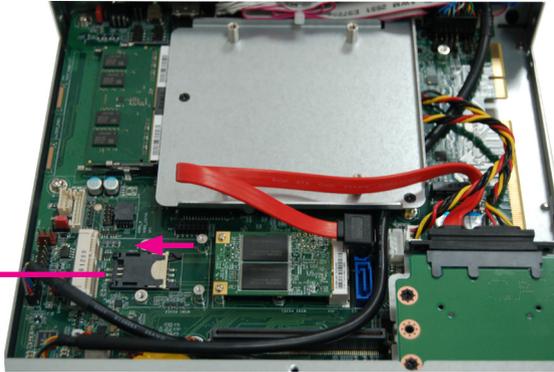
2. Push the Mini PCIe card down and use the provided mounting screws to secure the card on the system board.



Installing a SIM Card

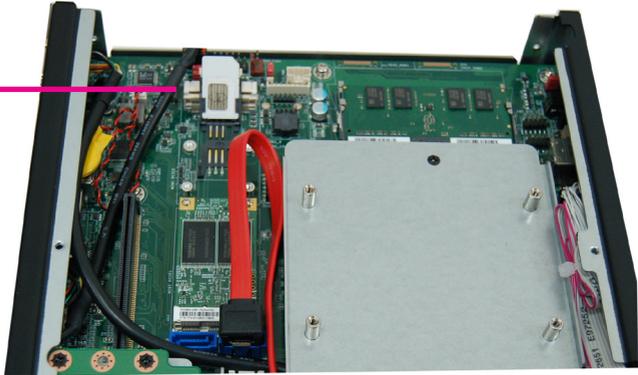
Open the SIM card socket by pushing the white latch inward.

Push the latch inward
to open it



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.

Flip the cover up to open it



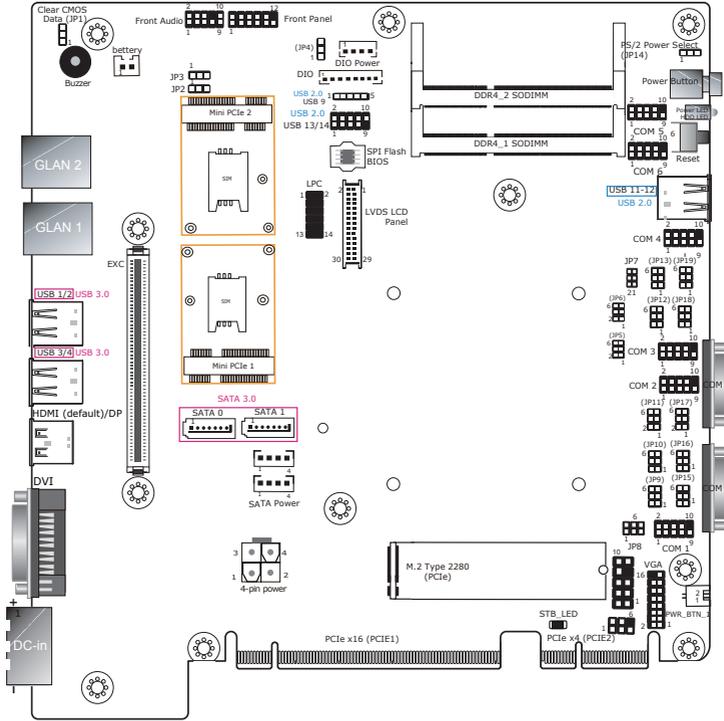
Close the slot's cover and lock the slot by pushing the white latch outward.

Close the cover the lock it





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

Note:

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