# DFI®

# EC500-SD Installation Guide

## Package Contents

| |
|---|
| • 1 EC500-SD system unit |
| • Mounting screws for SATA drive |
| • Mounting screws for Mini PCIe module |

## Panel

**Front View**

Power Button[1]
Status LED
HDD LED
USB 2.0
COM 2
COM 1
COM 3
COM 4
Remote power on/off
Reset Button

**Rear View**

DC-in
DVI-I (DVI-D Signal)
HDMI
USB 3.0
CFast
Microphone
Line-out
LAN 1
LAN 2
VGA
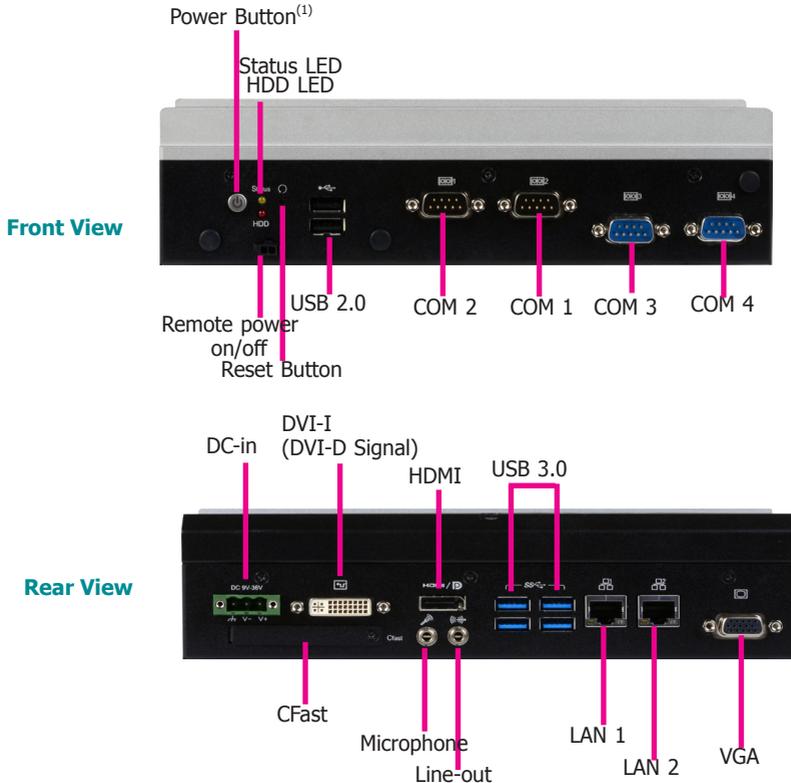
**Notes:**
1. Please gently press the power button to avoid possible damages.
2. The HDMI is a DP/HDMI combo port but can only provide HDMI connectivity (unless wired as a DP port by request). Please plug in an HDMI cable with the right orientation and alignment to avoid damage to the connector. You should feel resistance (due to a pin on the right) if the cable is not inserted correctly. For detailed instructions, please see a video at https://youtu.be/SUj07rfN5l8.

Aligning side (left)
Angled-corner pin
Angled-corner (up)
Align this edge with the left side of the connector

DFI reserves the right to change the specifications at any time prior to the product's release. For the latest revision and details of the installation procedure, please refer to the user's manual.

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# Removing the Chassis Cover

1.  Make sure the system and all other peripherals connected to it have been powered off.

2.  Disconnect all power cords and cables.

3.  The 6 mounting screws on the left side, right side and 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.

Mounting Screw

Mounting Screw
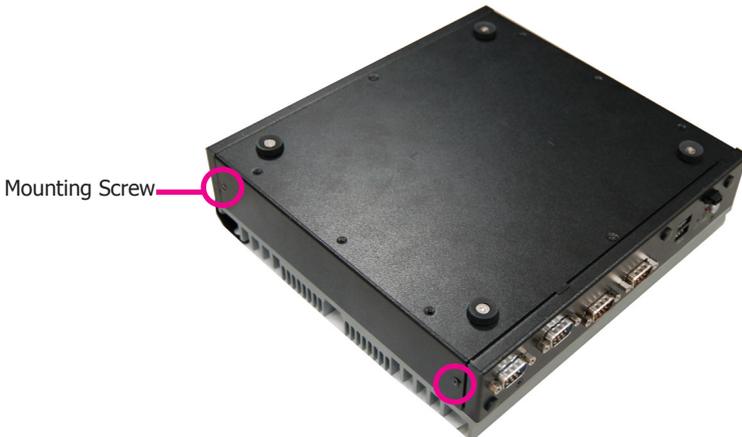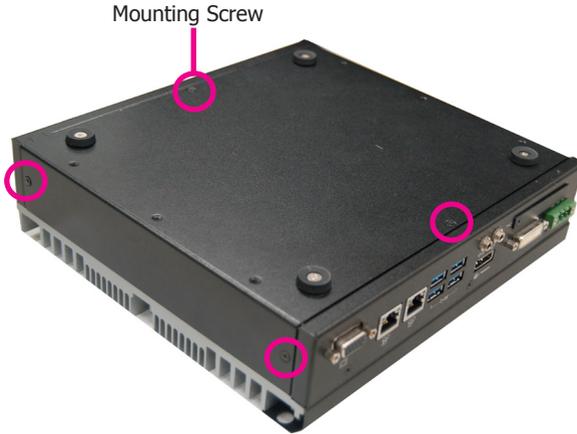
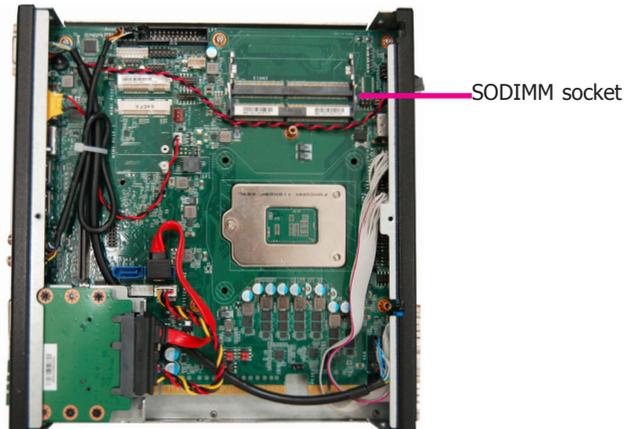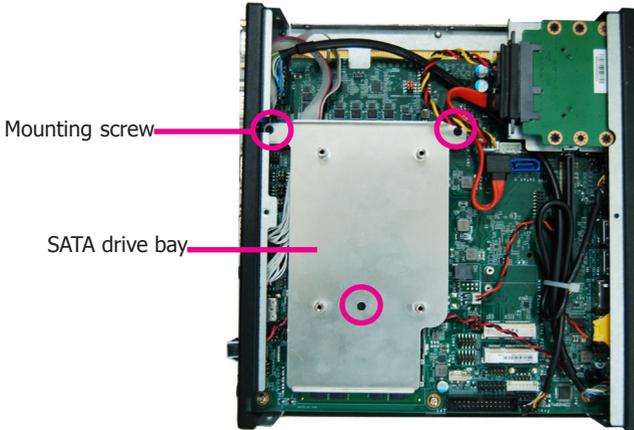4. Lift the cover upward to open the system.



5. The SODIMM sockets, Mini PCIe slot and SATA drive bay are accessible after removing the chassis cover.



SATA drive bay

Mini PCIe slot
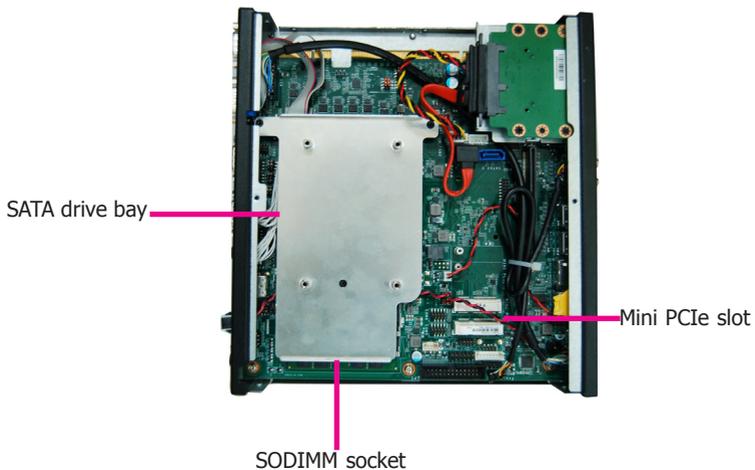
SODIMM socket

# Installing a SODIMM

1. The SODIMM sockets are located on the system board. Remove the SATA drive bay to access the SODIMM sockets.



Mounting screw

SATA drive bay



SODIMM socket

2.  Grasp the module by its edges and align the memory'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.
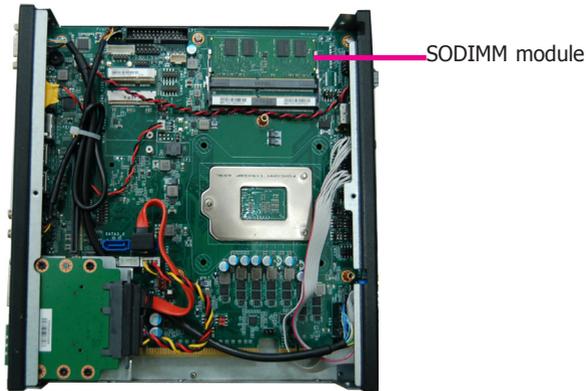


SODIMM module

**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. Please do not install other types of memory modules.

# Installing a 2.5" SATA Drive

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 on the HDD bracket with the provided mounting screws from the HDD drive bay kit.

Mounting Screws

Mounting screw

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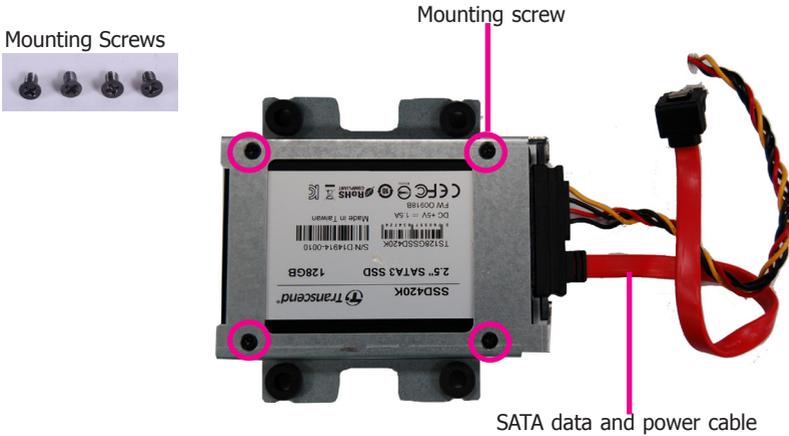
2.  Place the SATA drive installed with the HDD bracket in the system. Align the mounting holes on the HDD bracket with the mounting holes on the drive bay and use the provided mounting screws to secure the drive in place.

Mounting Screws

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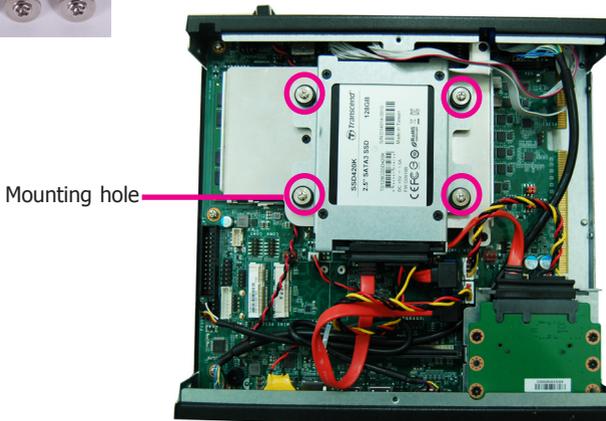
3. Connect the other end of the SATA data and power cable to the SATA data and power connectors on the system board respectively.



SATA power connector
SATA data connector
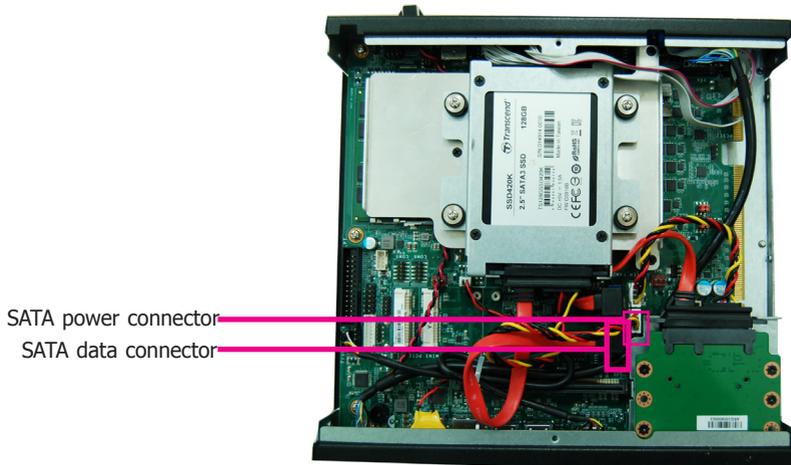
# Installing a CFast Card

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



CFast 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.
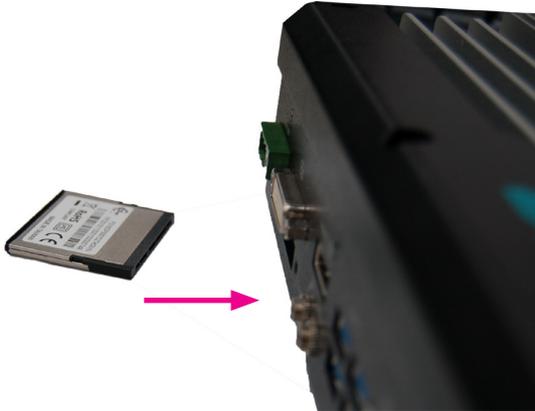


3. Close the CFast card cover. To eject the card, push the card inward to release the lock and pull it out.



CFast installed

# ◉ Installing a Mini PCIe or mSATA Card

The system board is equipped with 2 Mini PCIe slots: one full-size and one half-size slot. Here we will demonstrate the installation of a full-size Mini PCIe card.

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 screw to secure the card on the system board.



Mounting screw
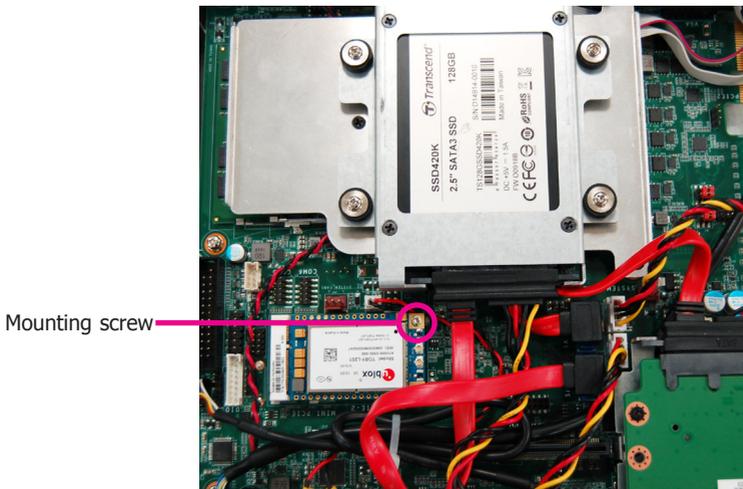
# Board Layout and Jumper Settings

Buzzer
Front Audio
S/PDIF
DIO
Parallel
Front Panel
DIO Power
Auto Power-on Select (JP11)
Power Button
Power LED
HDD LED
USB 2.0
USB 2.0 13-14
Mini PCIe
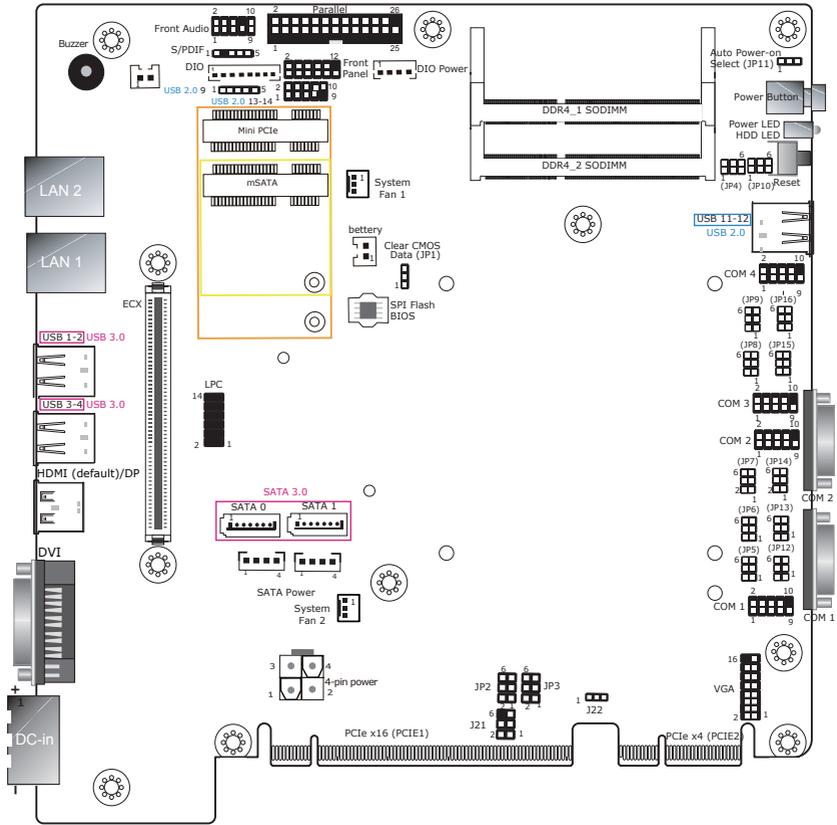mSATA
DDR4_1 SODIMM
DDR4_2 SODIMM
(JP4) (JP10) Reset
System Fan 1
battery
Clear CMOS Data (JP1)
SPI Flash BIOS
USB 11-12
USB 2.0
LAN 2
LAN 1
ECX
USB 1-2 USB 3.0
USB 3-4 USB 3.0
HDMI (default)/DP
DVI
LPC
COM 4
(JP9) (JP16)
(JP8) (JP15)
COM 3
COM 2
(JP7) (JP14)
(JP6) (JP13)
(JP5) (JP12)
COM 1
COM 2
COM 1
SATA 3.0
SATA 0 SATA 1
SATA Power
System Fan 2
4-pin power
JP2 JP3
J21 J22
VGA
DC-in
PCIe x16 (PCIE1)
PCIe x4 (PCIE2)

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

| RS232/Power Select: COM 1 (JP3), COM 2 (JP2) | |
|---|---|
| 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 (JP6), COM 2 (JP13) | |
|---|---|
| RS232 (default) | 1-2 On |
| RS422 Full Duplex | 3-4 On |
| RS485 | 5-6 On |

| RS232/422/485 Select: COM 1 (JP5/JP12) COM 2 (JP7/JP14) | |
|---|---|
| RS232 (default) | 1-3, 2-4 On |
| RS422 Full Duplex/RS485 | 3-5, 4-6 On |

| Auto Power-on Select | JP11 |
|---|---|
| Power-on via Power Button (default) | 1-2 On |
| Power-on via AC Power | 2-3 On |

| RS232/422/485 Select: COM 3 (JP9), COM 4 (JP4) | |
|---|---|
| RS232 (default) | 1-2 On |
| RS422 Full Duplex | 3-4 On |
| RS485 | 5-6 On |

| RS232/422/485 Select: COM 3 (JP8/JP15) COM 4 (JP10/JP16) | |
|---|---|
| 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, JP5 and JP12 must be set in accordance to JP6.
2. When COM2 RS232/422/485 is selected, JP7 and JP14 must be set in accordance to JP13.
3. When COM3 RS232/422/485 is selected, JP8 and JP15 must be set in accordance to JP9.
4. When COM4 RS232/422/485 is selected, JP10 and JP16 must be set in accordance to JP4.