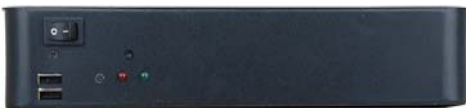


# EBC-3200

## Chassis for Mini-ITX

### Version: 1.01

## Quick Installation Guide



### ABOUT THE EBC-3200

The heavy-duty steel EBC-3200 compact embedded industrial chassis is designed for Mini-ITX SBC to operate reliably in industrial environments where it will be exposed to dust, wide temperature variations, shocks and vibrations.

### SPECIFICATIONS

- **SBC Form Factor:** Mini-ITX SBC
- **Construction:** Heavy duty metal
- **Drive Bays:**
  - Two 2.5" Internal HDD bays (standard) or
  - One 2.5" Internal HDD bay and one CF card slot
- **Expansion:** One PCI or PCIe riser card (optional)
- **USB:** Two front accessible USB ports
- **Indicator and Switch:**
  - 1 x Power LED
  - 1 x HDD LED
  - 1 x Reset button
  - 1 x Power switch
- **Mount:**
  - Wall mount (mounting plates included)
  - VESA 100 mount
- **Dimensions (WxDxH):**
  - 260 mm x 180 mm x 55 mm
- **Operating Temperature:** -10°C ~ 50°C with air flow (Ambient air speed per IEC-68-2-2 standard)
- **Relative Humidity:** 10%~90%
- **Weight (N):** 1.5 kg

### PACKING LIST

When unpacking the chassis, make sure the following items have been shipped.

- 1 x Quick Installation Guide
- 1 x Power cord
- 1 x Screw set
- 2 x Wall mount brackets

### DETAILS OF INCLUDED SCREWS

Screws used for chassis installation are shown below.



Peripherals/Parts	Screw Label (refer to picture)	Amount	In Package/ On Chassis
Top Cover	D	2	On chassis
2.5" HDD	B	8	In package
HDD Bracket	D	2	On chassis
	B	1	On chassis
Motherboard	A	4	In package
Expansion Slot Bracket	C	2	On chassis
USB Module Bracket	B	2	On chassis
	D	2	On chassis
Wall-mount Bracket	C	4	In package

Table 1: Screws for Peripheral/Parts

## DIMENSION DRAWING

The dimensions of EBC-3200-8522 are shown below.

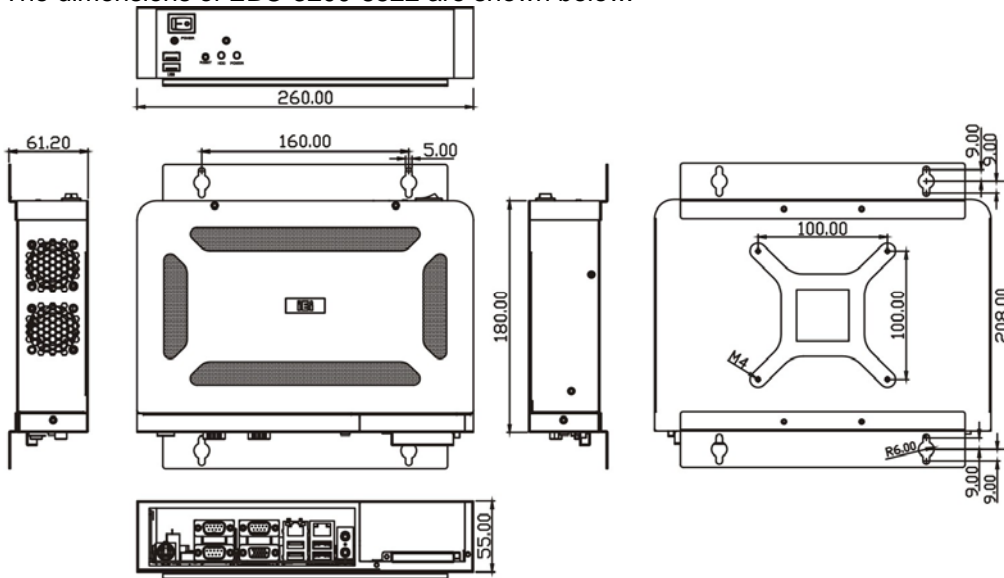


Figure 1: Dimension Drawing

## OPTIONAL MODULES

The EBC-3200 also supports CF slot module as well as PCI or PCIe riser card depending on which motherboard is installed. The optional module includes:













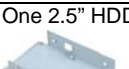

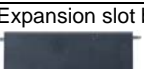

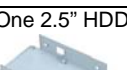
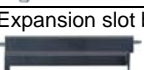

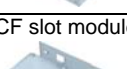
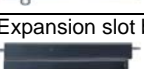
Part No.	Description and Picture		
EBCKIT-01-R10/PCI-HDD	One PCI slot riser card 	One 2.5" HDD bay 	Expansion slot bracket 
EBCKIT-02-R10/PCIe-HDD	One PCIe slot riser card 	One 2.5" HDD bay 	Expansion slot bracket 
EBCKIT-03-R10/PCI-CF	One PCI slot riser card 	CF slot module 	Expansion slot bracket 
EBCKIT-04-R10/PCIe-CF	One PCIe slot riser card 	CF slot module 	Expansion slot bracket 
EBCKIT-05-R10/CF-HDD	One 2.5" HDD bay 	CF slot module 	Expansion slot bracket 
EBCKIT-06-R10/PCIe16-HDD	One PCIe slot riser card 	One 2.5" HDD bay 	Expansion slot bracket 
EBCKIT-07-R10/PCIe16-CF	One PCIe slot riser card 	CF slot module 	Expansion slot bracket 

Table 2: Optional Modules

## INSTALLATION STEPS

To install the EBC-3200 chassis, the following installation steps must be completed:

- Step 1:** Unpack the chassis.
- Step 2:** Remove the top cover.
- Step 3:** Install the SBC (Single Board Computer).
- Step 4:** Install the CF slot module. (optional)
- Step 5:** Install the internal 2.5" HDD.
- Step 6:** Install the PCIe/PCI riser card. (optional)
- Step 7:** Connect the cables.
- Step 8:** Reinstall the top cover.
- Step 9:** Mount the chassis. (optional)

The installation steps outlined above are described in detail below. Please refer to the relevant section.

## STEP 1: UNPACK

The EBC-3200 is shipped in a plastic bag that is placed inside a cardboard box. The items are also shipped with the chassis. When unpacking the chassis please:

- Make sure all the items listed in the **PACKING LIST** section are present.
- Make sure the chassis has not been damaged in any way.

## STEP 2: REMOVE THE TOP COVER

The top cover is secured to the chassis with two thumb screws on the rear panel of the chassis.

- Step 1:** Loosen the two top cover thumb screws at the rear panel of the chassis.

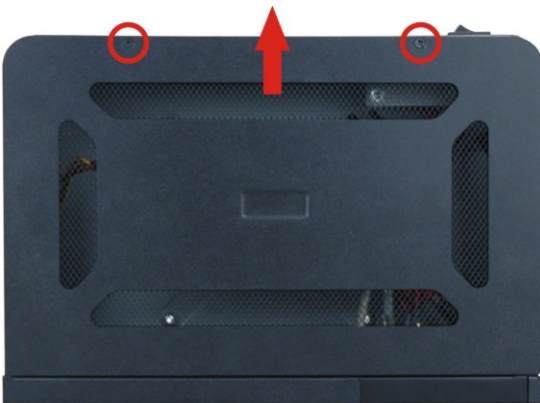


Figure 2: Top Cover Retention Screws

- Step 2:** Slide the cover forwards and then lift the cover up gently.

## STEP 3: MOTHERBOARD INSTALLATION

To install a Mini-ITX motherboard, please follow the instructions below:

- Step 1:** Remove the USB module bracket from the chassis by removing the two retention screws on the front panel.



Figure 3: USB Module Bracket Retention Screws

- Step 2:** Remove the expansion slot bracket shown in the following diagram from the chassis by removing the four retention screws.

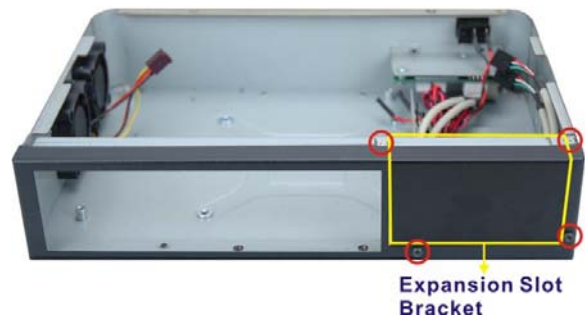


Figure 4: Expansion Slot Bracket Retention Screws

- Step 3:** Install the I/O shielding in the chassis. Push the I/O shielding inside out.

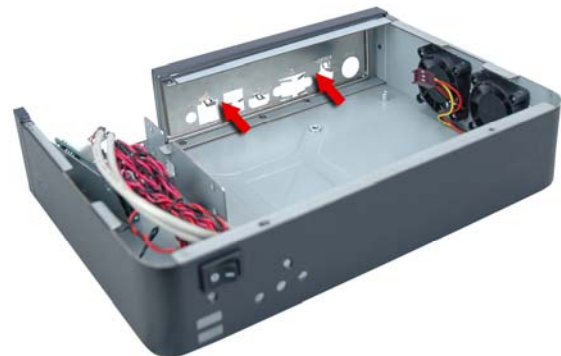


Figure 5: I/O Shielding Installation

- Step 4:** Place the motherboard inside the right hand side of the chassis. Make sure the external peripheral interface connectors fit into the predrilled holes on the previously installed I/O shielding.
- Step 5:** Align the four retention screws holes on the motherboard with the retention screw holes on the bottom of the chassis.
- Step 6:** Install the motherboard to the chassis with four

retention screws.



Figure 6: Motherboard Retention Screws

**Step 7:** Reinstall the two brackets removed in Step 1 and Step 2.

## STEP 4: CF MODULE INSTALLATION (OPTIONAL)

To install the optional CF module, please follow the steps below.

- Step 1:** Remove the expansion slot bracket.
- Step 2:** Mount the CF module onto the HDD bracket. To do this, align the four retention screw holes in the CF module with the retention screw holes in the HDD bracket.
- Step 3:** Insert the four retention screws to secure the CF module with the bracket.



Figure 7: CF Module Installation

**Step 4:** Reinstall the expansion slot bracket.

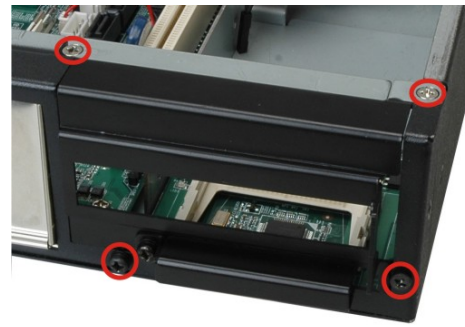


Figure 8: CF Module Installation

## STEP 5: DISK DRIVE INSTALLATION

The EBC-3200 chassis has the capacity for one or two 2.5" internal HDD. To install the HDD, please follow the steps below.

**Step 1:** Remove the HDD bracket from the chassis by removing three retention screws, two on the left panel and one inside the chassis.

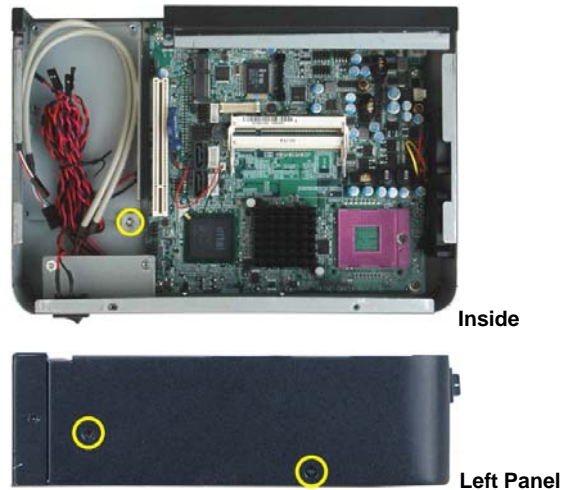


Figure 9: HDD Installation

**Step 2:** Mount a 2.5" HDD onto the HDD bracket. To do this, align the four retention screw holes in the sides of 2.5" HDD with the retention screw holes in the HDD bracket.

**Step 3:** Insert the four retention screws to secure the HDD with the bracket.



Figure 10: HDD Retention Screws

**Step 4:** Install the HDD into the chassis with three retention screws.



Figure 11: HDD Installation

## STEP 6: RISER CARD INSTALLATION (OPTIONAL)

To install the optional PCI/PCIe riser card, please follow the steps below.

- Step 1:** Remove the expansion slot bracket.
- Step 2:** Locate the PCI or PCIe slot on the motherboard.
- Step 3:** Insert the PCI or PCIe riser card into the PCI or PCIe slot on the motherboard.



Figure 12: PCI/PCIe Riser Card Installation

**Step 4:** Insert the PCI or PCIe expansion card into the PCI or PCIe slot on the riser card.

**Step 5:** Reinstall the expansion slot bracket.

**Step 6:** Secure the expansion card with the chassis by one retention screw.



Figure 13: PCI/PCIe Expansion Card Installation





## STEP 7: CABLING

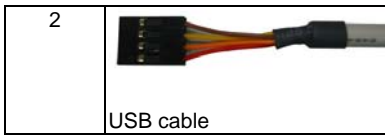
### STEP 5.1: FRONT PANEL CABLE CONNECTION

There are buttons, LEDs and ports on the front panel of the EBC-3200 chassis.

- o 1 x Power LED
- o 1 x HDD LED
- o 1 x Power switch
- o 1 x Reset button
- o 2 x USB ports

These components are all connected to the motherboard with cables. To correctly connect these cables, please refer to the user manual that came with the motherboard. The connectors that are provided with the chassis are listed below.

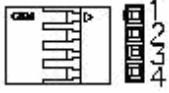
No.	Name
1	 Power LED cable
1	 Reset Switch cable
1	 HDD LED cable
1	 Power switch cable



USB cable

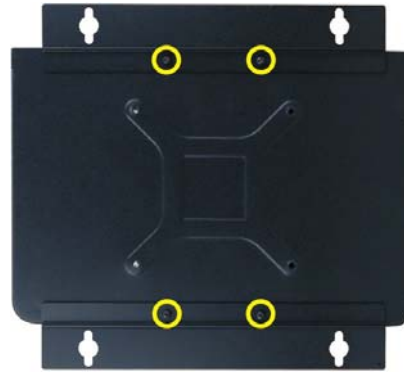
**Table 3: Chassis Connectors**

The pin definitions for the USB cable are shown below.



PIN No.	Description	Color
1	+5V	Red
2	D-	Dark Yellow
3	D+	Yellow
4	GND	Brown

**Table 4: Pin Definitions of USB Cable**



**Figure 14: Wall-mount Plate Retention Screws**

### STEP 5.2: FAN CABLE CONNECTION

To correctly connect the system fan cable from the system fan to the motherboard, please refer to the user manual that came with the motherboard.

### STEP 5.3: HDD CABLE CONNECTION

To correctly connect the HDD SATA cable and SATA power cable from the HDD to the motherboard, please refer to the user manual that came with the motherboard.

## STEP 8: WALL-MOUNT PLATES INSTALLATION

Two wall-mount plates are shipped with the EBC-3200 chassis. The wall-mount plates are installed on the sides, at the bottom of the chassis. Each plate is secured to the chassis by two retention screws. To install the wall-mount plates, please follow the steps below.

- Step 1:** Align the retention screw holes in the wall-mount plate with the retention screw holes on the side of the chassis.
- Step 2:** Insert two retention screws for each wall-mount plate.