EBC-3620
Mini-ITX Chassis
Version: 1.0

Quick Installation Guide

ABOUT THE EBC-3620

The EBC-3620 is designed for Mini-ITX motherboards. The EBC-3620 has two USB ports on the front panel, and a space for a slim-type DVD or CD drive. Up to four drives can be installed. The EBC-3620 also supports PCI/PCIe cards (depending on the motherboard) through expansion card slots on the rear panel.

SPECIFICATIONS

- **Form Factor:** Fits Mini-ITX motherboards
- **SBC Form Factor:** Mini-ITX
- **Construction:** Heavy-duty steel
- **Slots:** 2 slots
- **Cooling:** 2 x 5 cm fans
- **Dimensions (DxWxH):**
  - o   300 mm x 268 mm x 65 mm
- **Operating Temperature:** 0~50°C
- **Relative Humidity:** 10~90%
- **Vibration:**
  - o   5-17Hz, 0.1" double amplitude displacement
  - o   17-640Hz, 1.5G acceleration peak to peak
- **Shock:** 10G acceleration peak to peak
- **Drive Bay Combinations:** Listed in **Table 1** below

Optical Drives	Expansion Cards	2.5" Hard Drives	3.5" Hard Drives
1	2	2	0
1	1	1	1
1	0	1	2
1	0	2	1
0	2	3	0
0	1	3	1
0	1	2	2

Table 1: Drive Combinations

PACKING LIST

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

- 1 x Riser card
- 1 x Screw set (details below)
- 1 x 2.5" adapter bracket
- 1 x System fan cable
- 1 x Power adapter
- 1 x Power cord

DETAILS OF INCLUDED SCREWS

The attached screws include all of the following screws. Both pre-installed screws and screws that have not been installed are included.

Description	Quantity	Picture
Front cover screws	6	
Top cover screws	2	
Hard drive bracket screws	12	
Support bracket screw	1	
DC jack screw	2	

Table 2: Screws for Peripheral/Parts

DIMENSION DRAWING

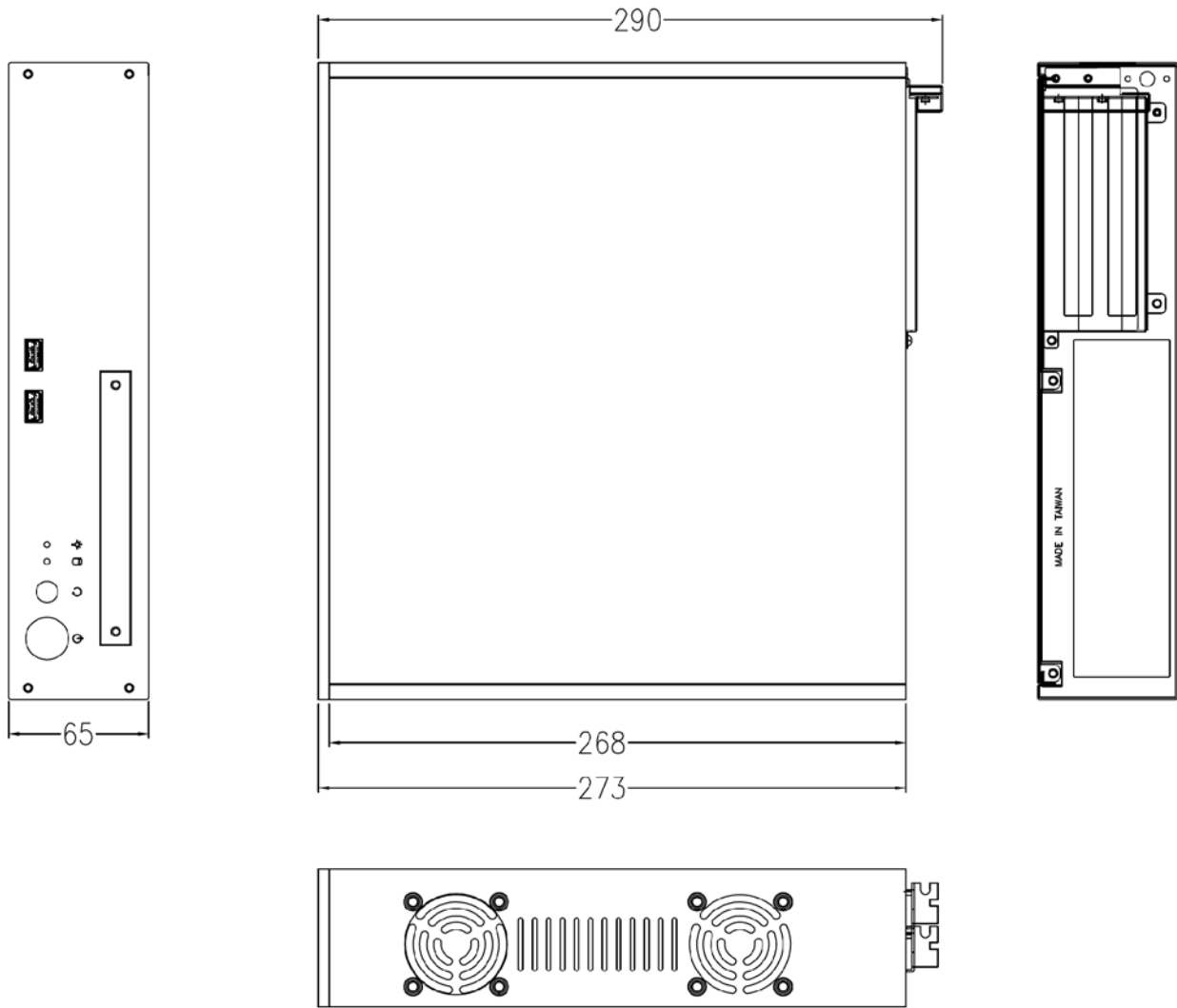EBC-3620 dimensions are shown below.

Figure 1: Dimension Drawing (measurement in millimeters)

INSTALLATION STEPS

To install the EBC-3620 chassis, the following installation steps must be completed:

Step 1:   Unpack

Step 2:   Top cover and Support Bracket Removal

Step 3:   Install Motherboard

Step 4:   Install Optical Drive

Step 5:   Install Hard Drives (Main Bracket)

Step 6:   Install Hard Drive (Bottom Bracket)

Step 7:   Install Expansion Card

Step 8:   Front Panel Cables

Step 9:   Cover Reinstallation

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

STEP 1:   UNPACK

The EBC-3620 is shipped in a plastic bag that is placed inside a cardboard box. The accessories are also shipped with the chassis. When unpacking the chassis:

- Make sure all the accessories and components mentioned in the **PACKING LIST** section are present.
- Make sure the chassis has not been damaged in any way.

STEP 2:   TOP COVER AND SUPPORT BRACKET REMOVAL

The top cover is secured to the chassis with six retention screws, three on each side of the chassis. To remove the top cover, please follow the steps below.

Step 1:   Remove the two top cover retention screws as indicated below.

Figure 2: Top Cover Retention Screws

Step 2:   Slide the top cover back to remove it.

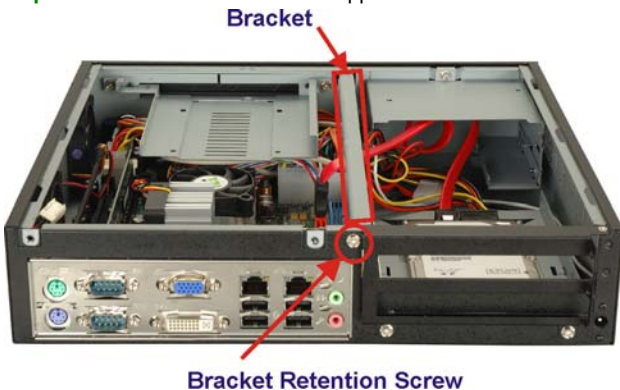**Step 3:**   Remove the internal support bracket retention screw.

Figure 3: Support Bracket Screw

Step 4:   Pull up the support bracket to remove it.

STEP 3:   INSTALL MOTHERBOARD

The motherboard is installed before all the other components in the chassis. To install the motherboard, follow the steps below.

Step 1:   Undo the optical disk drive screws and remove the optical disk drive bracket.

Figure 4: Optical Drive Bracket Screws

Step 2:   Place the motherboard into the chassis and fasten the four motherboard screws.

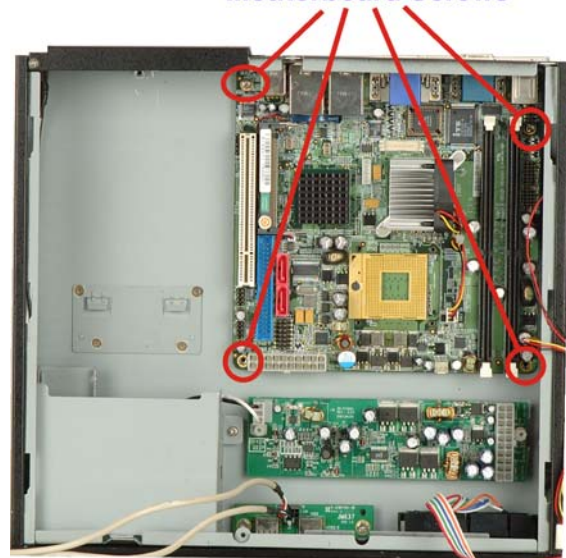**Figure 5: Optical Drive Bracket Screws**

Step 3:   Attach the following cables to the motherboard:
- Power cable
- Fan cable
- USB cables
- Front panel cables
  o   Power button cable
  o   Reset button cable
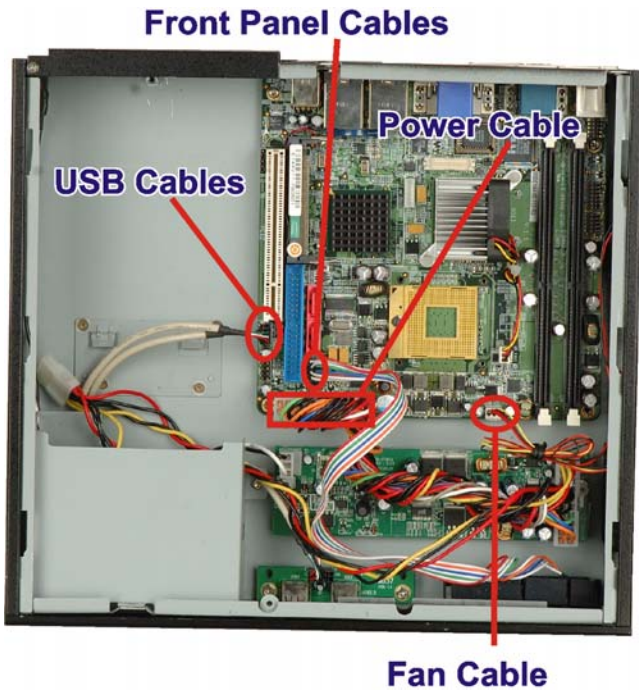 o   Power LED cable
  o   Hard drive activity LED cable

Figure 6: Optical Drive Bracket Screws

Step 4: Reinstall the optical drive bracket and fasten the screws. Also attach the hard drive cables

STEP 4: INSTALL OPTICAL DRIVE

The optical drive bracket supports either a slim-type optical drive or 2.5" hard disk. To install the optical drive or hard disk, please follow the steps below.

Step 1: Slide the optical drive into the optical drive bracket. Slide the optical drive from the front of the bracket.

Figure 7: Slide the Optical Drive

Step 2: Attach the optical drive screws and tighten.
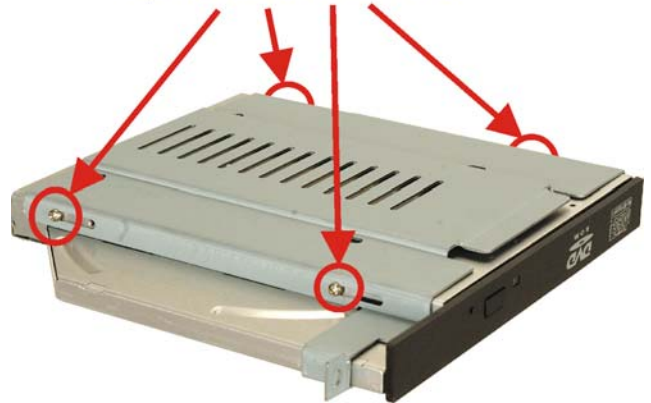
Figure 8: Optical Drive Screws

Step 3: If installing a hard drive, the hard drive installs on the top side of the optical drive bracket. Connectors face towards the inside of the chassis The screws attach underneath.
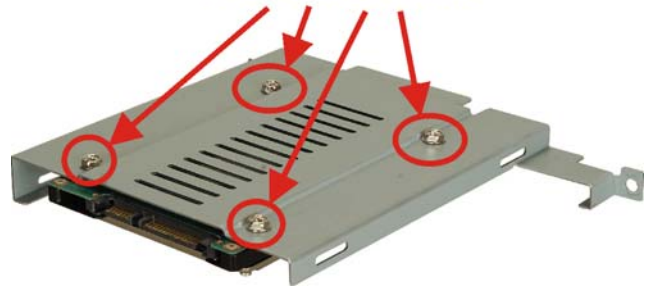

Figure 9: Hard Drive Screws

Step 4: If installing an optical drive in the optical drive bracket, break the metal plates (indicated below) from the case. Bend back and forth until they break off.

Figure 10: Optical Drive Cover

Step 5: Reinstall the optical drive bracket and fasten the screws. Also attach the hard drive cables

Figure 11: Fasten Optical Drive Screws

STEP 5: INSTALL HARD DRIVES (MAIN BRACKET)

To install hard drives in the main hard drive bracket, follow the instructions below.

Step 1: Undo the hard drive bracket screws indicated below.

Figure 12: Hard Drive Bracket Screws

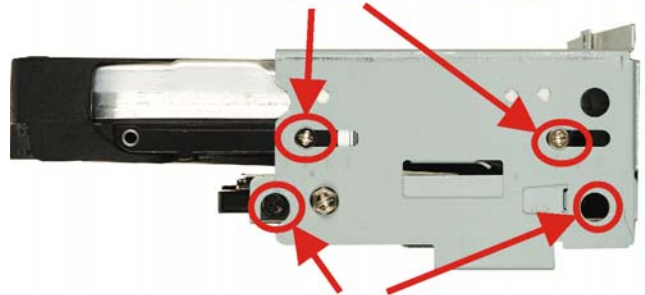**Step 2:** Remove the hard drive bracket from the chassis.

Step 3: Install the hard drives and fasten all the hard drive screws.

Figure 13: Hard Drive Screws

Step 4: Attach the cables to the hard drives.
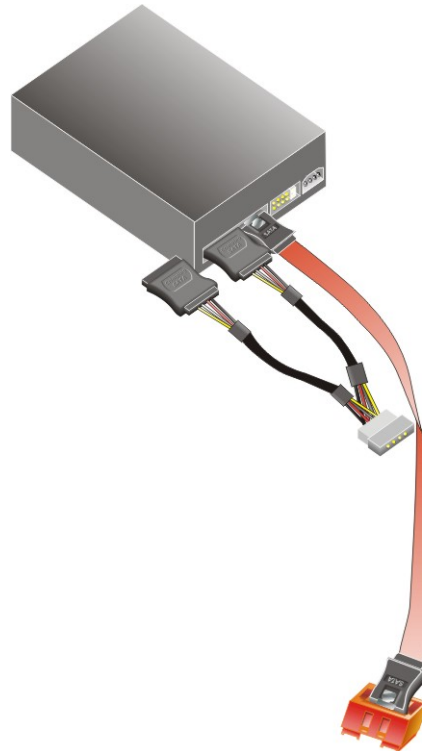

Figure 14: SATA Cables

Step 5: Reinstall the hard drive bracket into the chassis.

STEP 6: INSTALL HARD DRIVE (BOTTOM BRACKET)

To install a hard drive into the hard drive bracket on the bottom of the chassis, please follow the instructions below.

Step 1: Unfasten the single hard drive bracket screw. Slide the hard drive bracket towards the front of the chassis to remove.

Figure 15: Install 1

Step 2: Install a hard drive in the hard drive bracket and fasten the screws indicated below.
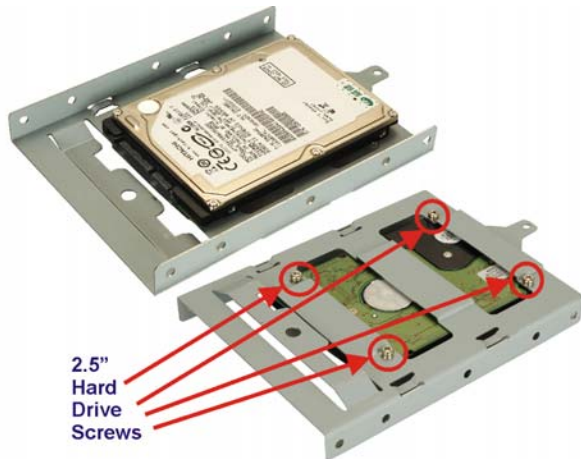

Figure 16: Hard Drive Screws

Step 3: Attach the cables to the hard drive (Figure 14)

Step 4: Reinstall the hard drive bracket and fasten the

previously removed screw.

STEP 7: INSTALL EXPANSION CARD

The EBC-3620 supports up to two expansion cards. To install the expansion cards, please follow the instructions below.

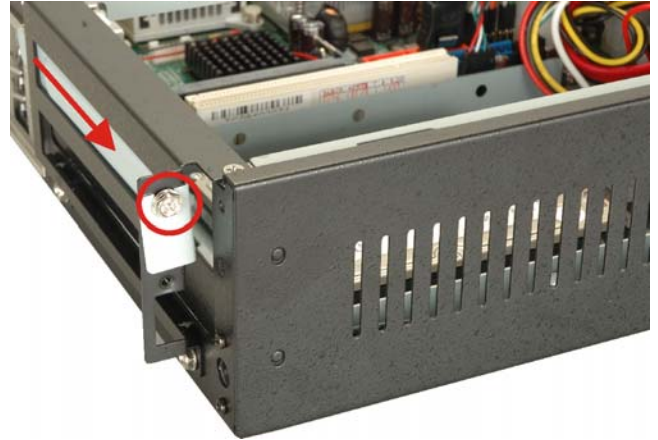**Step 1:** Undo the expansion slot cover screw. Pull it out in the direction shown.

Figure 17: Expansion Card Slot Cover

Step 2: Secure the power supply bracket to the power supply and then secure the power supply bracket to the system panel.
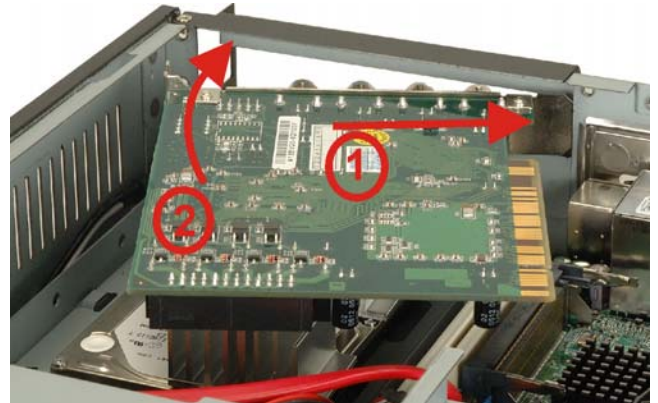

Figure 18: Expansion Card Installation

Step 3: Attach the riser card to the PCI card.
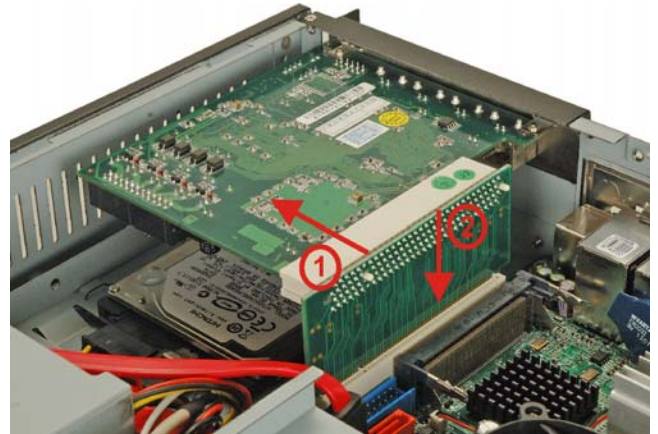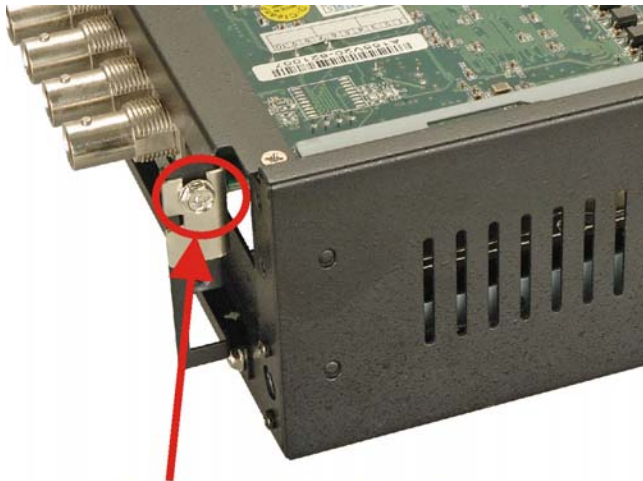Press the riser card into the expansion slot.

Figure 19: Riser Card Installation

Step 4: Fasten the expansion card retention screw.

Expansion Card Retention Screw

Figure 20: Expansion Card Retention Screw

Step 5: Optionally attach the expansion screw cover and fasten the two screws.

Figure 21: Expansion Card Screw Cover

STEP 8: FRONT PANEL CABLES

The following buttons, LEDs and USB port are on the front panel of the EBC-3620 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
- o 1 x Backplane ATX connector

These components are all connected to the CPU card with cables. To correctly connect these cables, please refer to the technical documentation that came with your CPU card. The connectors that are provided with the chassis are listed below.

No.	Name
2	 USB cable

No.	Name
1	 Power LED cable
1	 Reset Switch cable
1	 HDD LED cable
1	 Power switch cable
1	 Backplane ATX connector cable

Table 3: Chassis Connectors

USB cable pin definitions are shown below
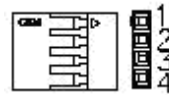
PIN No.	Description	Color
1	+5V	Red
2	D-	White
3	D+	Green
4	GND	Black

Table 4: USB Cable Pinouts

STEP 9: COVER REINSTALLATION

Cover reinstallation is in the reverse order of removal.

Step 1: Position the internal support bracket and fasten the screw.

Step 2: Reinstall cover and fasten the two screws.

CHASSIS MAINTENANCE

◼ FAN REPLACEMENT

 NOTE:
Please ensure that the power of the computer is switched off before fan replacement procedure.

There are two cooling fans inside the EBC-3620 chassis. To replace them, please follow the instructions below.

Step 1: Open the chassis (refer to Figure 2)
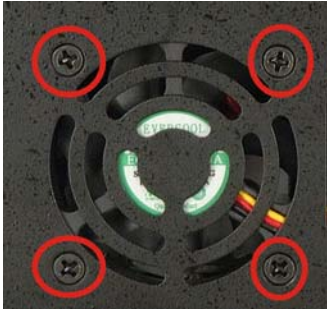
Step 2: Remove the fan screws.

Figure 22: Fan Screws

Step 3: Slide the fan out of the chassis and remove the fan power cable.

Figure 23: Fan Location

Step 4: To reinstall the fan, reverse the procedure.