

RCK-407

4U Rackmount-Chassis

User Manual



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August 2018



Table of Contents

Chapter 1 Getting Started	4
General Information.....	4
Product Specification.....	4
Packing Checklist	5
Recommended Tools	6
Recommended Working Environment	6
Chassis Mechanical Drawing.....	6
Chapter 2 Installation Guide	7
Unpacking the Chassis.....	7
Removing the top cover	7
Installing the PS2 Single Output Power Supply Unit.....	8
Installing the Mini Redundant Power Supply Unit	8
Installing the ODD drive	9
Installing the Motherboard	12
Installing the Backplane	13
Appendix A Power Supply Unit.....	14
Appendix B Motherboard.....	14
Appendix C Backplane.....	14

Chapter 1 Getting Started

General Information

The RCK-407 series 4U rackmount chassis supports either ATX motherboard or 14-slot backplane, with (4) 5.25" and (1) 3.5" external drive bays, (2) 3.5" internal drive bays. The chassis has (1) 12cm and (1) 8cm ball-bearing fans, with space for optional one more 8cm fan, Hold-down clamp, and supports single PS2 and mini-redundant power supply.

The RCK-407MA is designed to support ATX motherboard while RCK-407BA supports 14-slot backplane. Extended length chassis RCK-407ME with depth of 515mm supports extended ATX motherboard.

Product Specification

Construction	Heavy-duty steel
Drive bay	- 4 x 5.25" and 1 x 3.5" external bays - 2 x 3.5" internal bays
Cooling fan	- 1 x 12cm and 1 x 8cm ball-bearing fans - Space for optional one 8cm fan in the rear panel
Front panel	- On/Off switch and Reset switch - 2 x USB ports
Indicator	Power On/Off, HDD activity, Thermal condition, Fan condition and Alarm reset LEDs
Expansion	- 7 x full-height expansion slots (RCK-407MA) - 14 x full-height expansion slots (RCK-407BA)
Dimension (W x D x H)	- 427 x 480 x 176.8mm (for RCK-407MA / RCK-407BA) - 427 x 660 x 176.8mm (for RCK-407ME / RCK-407BE)
Weight	NW: 11.8kg / GW: 15.6kg (for RCK-407MA / RCK-407BA) GW: kg / kg (for RCK-407ME / RCK-407BE)

Packing Checklist

RCK-407MA			
1	2 x Key	6	9 x Countersunk screw for HDD
2	40 x Screw for M/B, HDD, add-on card	7	1 x Spacer for motherboard
3	12 x Screw for ODD and 2.5" HDD	8	14 x Standoff for motherboard/backplane
4	6 x Slot cover	9	4 x Screw+standoff for P4 CPU
5	3 x Fastener		2

RCK-407BA			
1	2 x Key	6	9 x Countersunk screw for HDD
2	40 x Screw for M/B, HDD, add-on card	7	1 x Spacer for motherboard
3	12 x Screw for ODD / 2.5" HDD	8	14 x Standoff for motherboard/backplane
4	12 x Slot cover	9	4 x Screw+standoff for P4 CPU
5	3 x Fastener		2



Recommended Tools

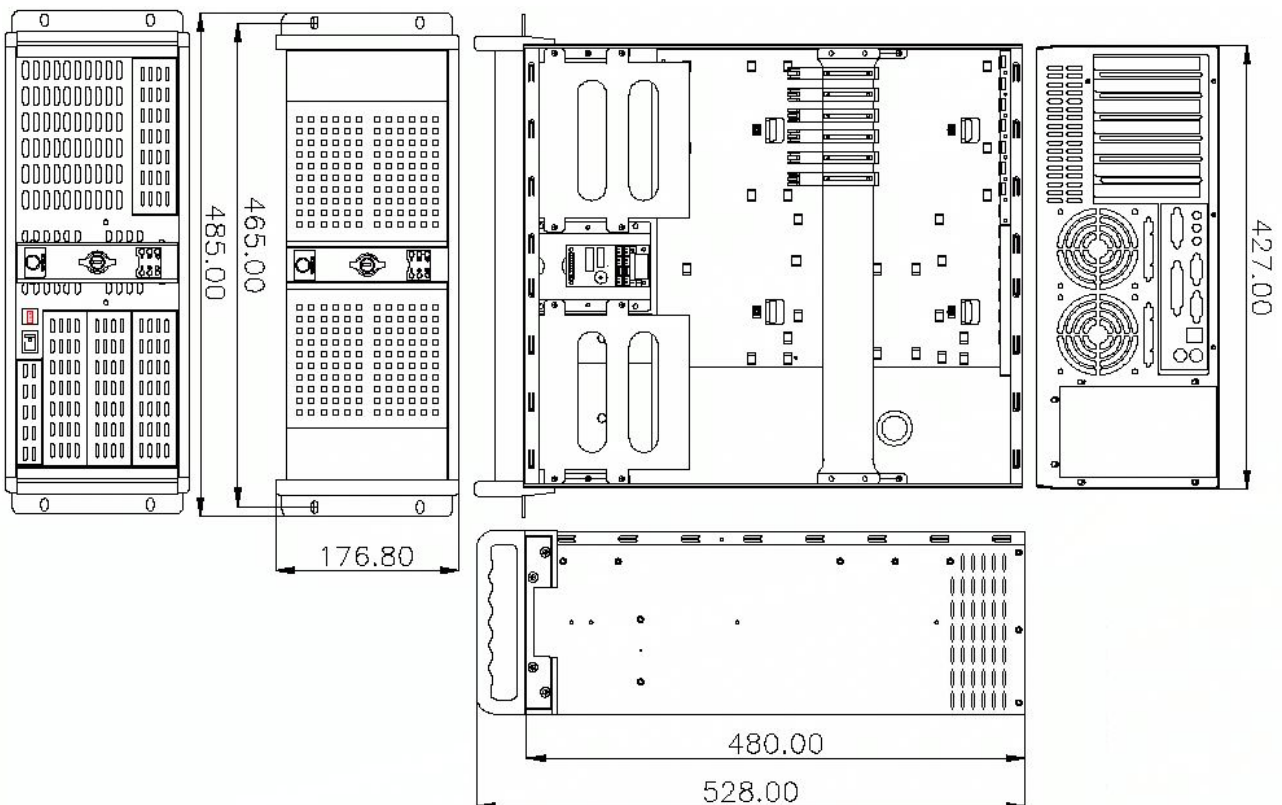
- Philips Head Screwdriver
- Flat Head Screwdriver
- Forceps (for pulling out jumpers and screws)

Recommended Working Environment

A flat anti-static work surface is required when assembling a complete system

Chassis Mechanical Drawing

Drawing with dimension in millimeter:



Chapter 2 Installation Guide

Unpacking the Chassis

The RCK-407 series chassis 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 parts listed above are present.
- Make sure the chassis has not been damaged in anyway.

1. Cut the sealing tape to open the box. Make sure the accessory bag and mounting bracket are present

2. The chassis is wrapped in a protective plastic bag

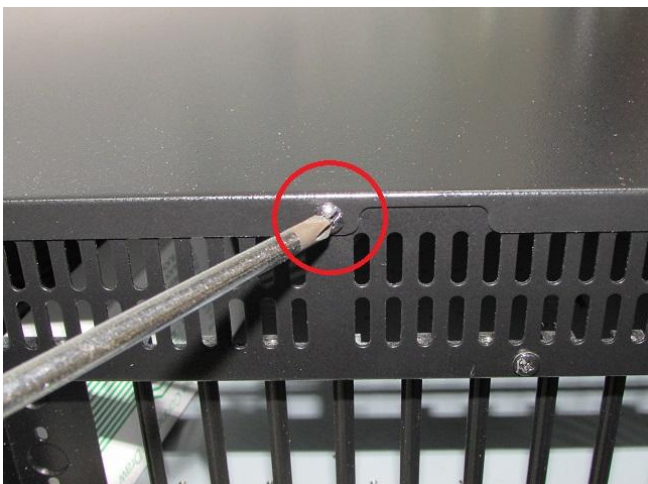


Removing the top cover

The top cover is secured by a total of seven screws (three on each side and one on rear panel of the chassis). To remove the top cover, please follow the steps below:

1. Remove all 3 retention screws, there are 2 screws on each side

2. And 1 screw on the rear panel. Slowly slide the top cover back to remove it



Installing the PS2 Single Output Power Supply Unit

Once the top cover have been removed, a user supplied PSU can be installed. The PSU is installed at the rear panel and secured with total five retention screws.

1. Secure the 2U PSU with 4 screws to the rear panel



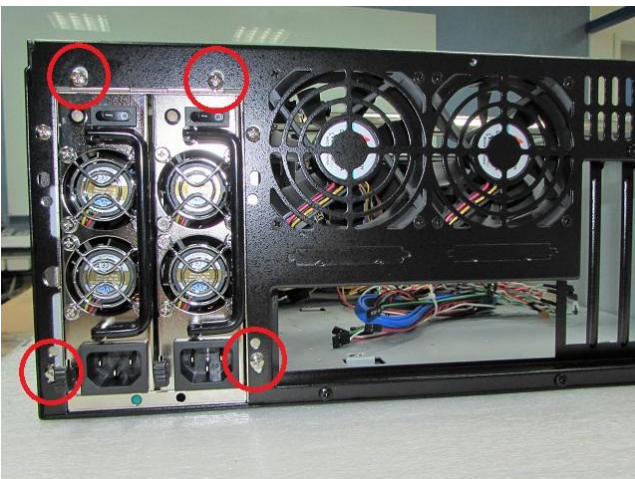
2. Secure the rear PSU bracket to chassis bottom with 2 screws



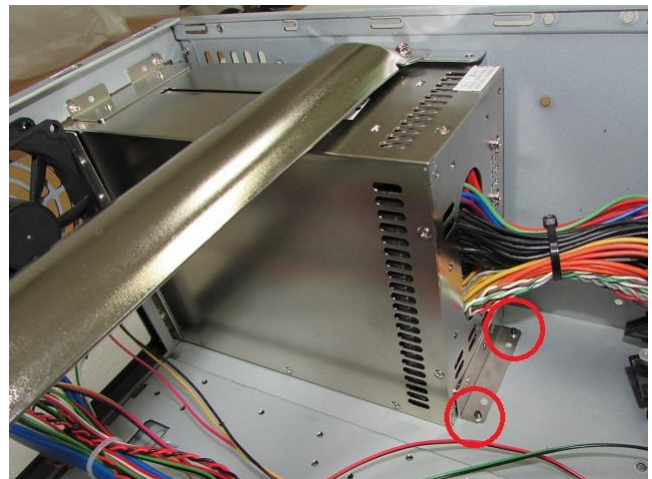
Installing the Mini Redundant Power Supply Unit

Remove the chassis PSU bracket to install the Redundant PSU. Total four retention screws are required to secure the PSU to the rear panel.

1. Secure the Mini redundant PSU with 4 screws to the back panel



2. And other 2 screws to the chassis bottom

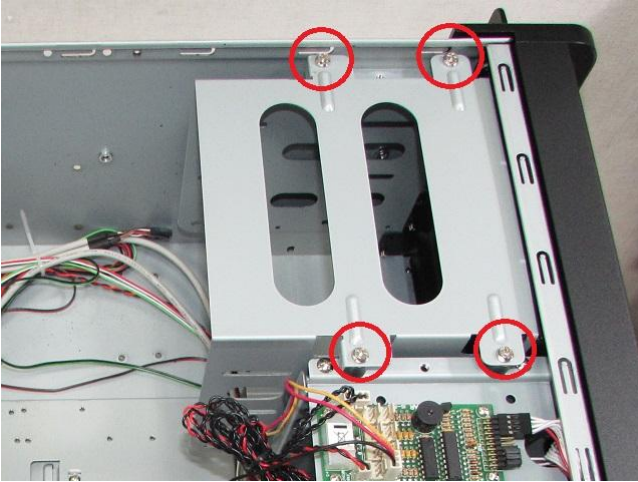


- Compatible Power Supply Unit models are available in Appendix A.

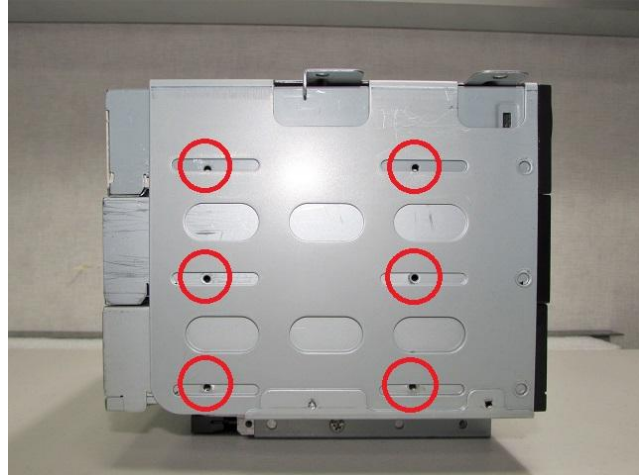
Installing the ODD drive

The RCK-407 chassis has four external 5.25" drive bays. To install the drives, please follow the steps outlined in the sections below.

1. Unscrew the 4 retention screws to remove the drive cage.



2. Secure the drive with 4 screws for each unit (two on each side)



3. Make sure the front panel of the drives are evenly mounted.



Installing the Mobile Rack

To install the Mobile rack, repeat the previous steps to remove the drive cage, then follow the installation steps outlined below.

1. Secure the mobile rack with screws according to mobile rack installation manual



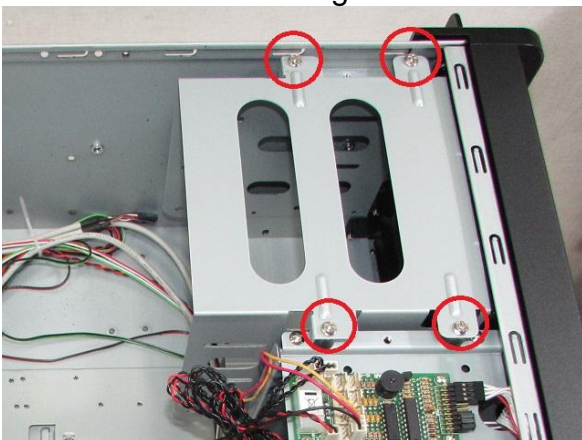
2. Make sure the front panel of the drives are evenly mounted



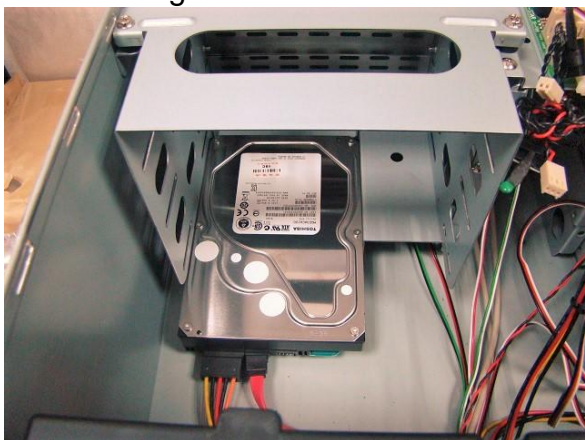
Installing the Hard Disk Drive

The HDD can be installed in the lower bay of the drive cage and/or in the middle of the front panel next to the drive cage. To install the drives, please follow the steps outlined in the sections below.

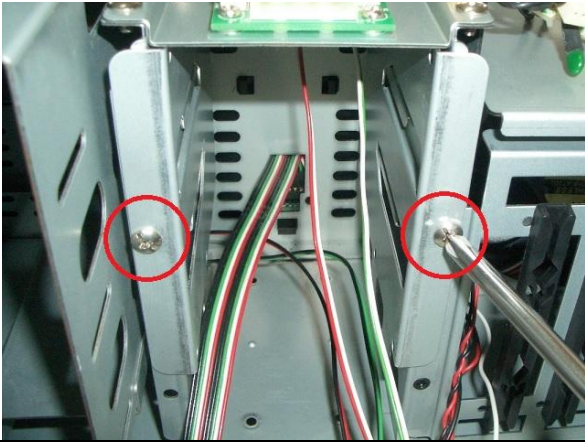
1. Unscrew the 4 retention screws to remove the drive cage



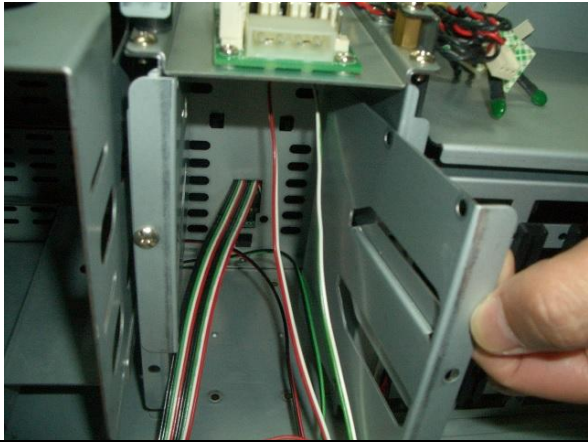
2. Secure the HDD to the bottom of the drive cage



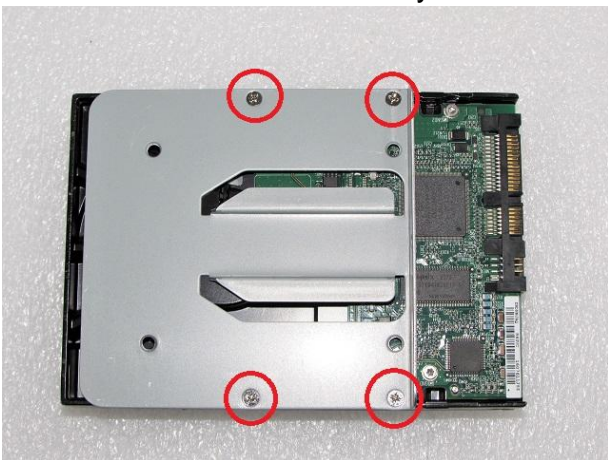
3. Unscrew the 2 retention screws



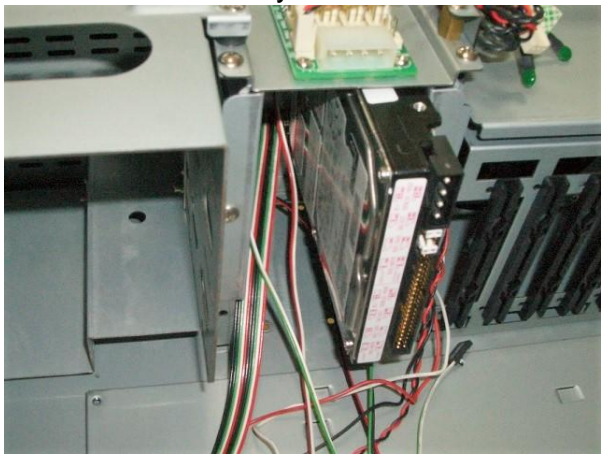
4. Remove the HDD tray



5. Secure the HDD to the tray



6. Put the HDD tray back to the chassis



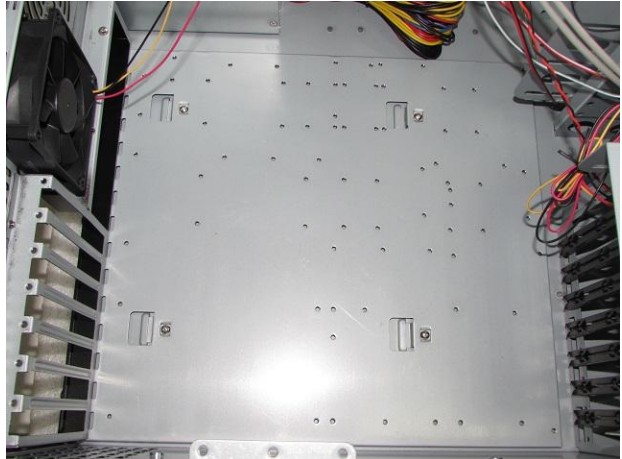
Installing the Motherboard

Remove the holddown bar first before installing the motherboard. Follow steps below for details.

1. Take some standoffs from the accessory box



2. Secure the standoffs to the bottom plate according to the motherboard form-factor



3. Mount the I/O shield before placing the motherboard into the chassis



4. Secure the motherboard to the chassis bottom by retention screws



- Please make sure to disconnect the Power Supply before installing the motherboard.
- Do not turn on power during the installation process
- Electrostatic Discharge (ESD) can damage electronic components. To prevent damage to your system, use a grounded wrist strap designed to prevent static discharge
- Different motherboard may have different Screw hole positions, please refer to their own User manual for details.
- This chassis supports ATX, microATX and Mini-ITX form-factor motherboard.

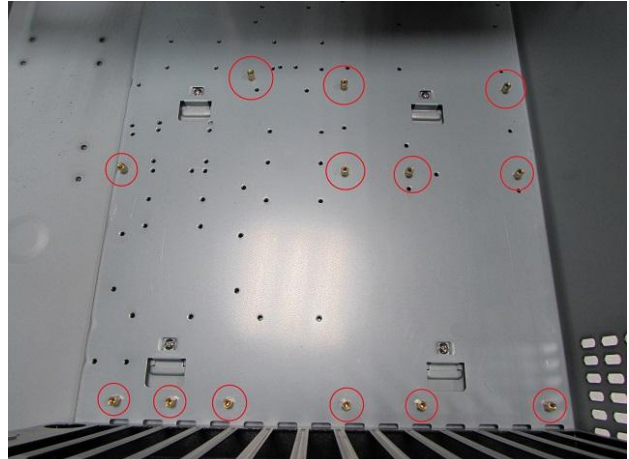
Installing the Backplane

Remove the holddown bar first before installing the backplane. Follow steps below for details:

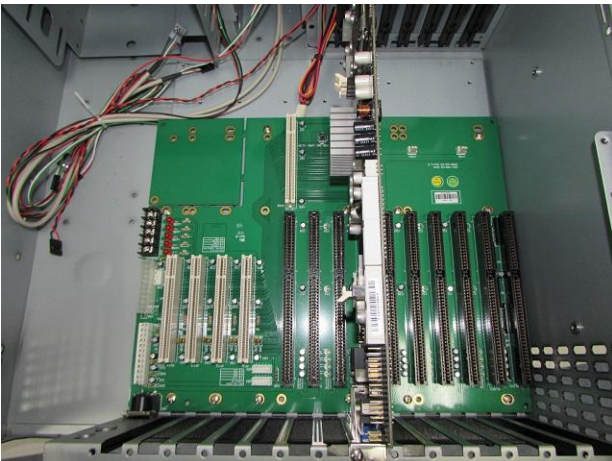
1. Remove the protection cover from the screw hole



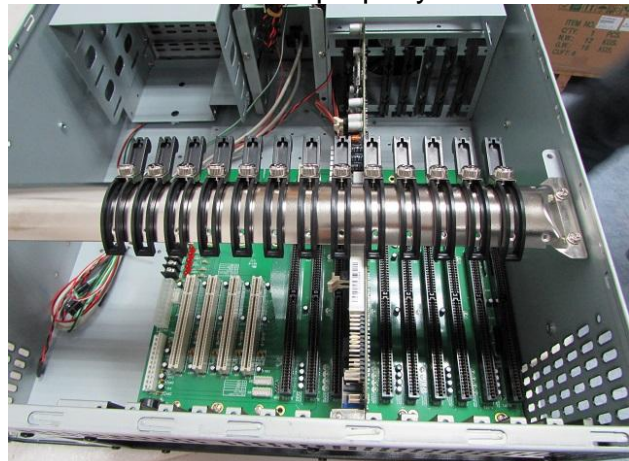
2. Secure the standoffs to the bottom plate according to the backplane



3. Secure the backplane into bottom plate with screws



4. Secure back the holddown bar to fix the board/card below properly



- Please make sure to disconnect the Power Supply before installing the backplane.
- Do not turn on power during the installation process
- Electrostatic Discharge (ESD) can damage electronic components. To prevent damage to your system, use a grounded wrist strap designed to prevent static discharge

Appendix A Power Supply Unit

Compatible Power Supply Units are listed in the table below:

Model number	Wattage	Type	Dimension (W x H x L)
SS-400ES	400W	PS2 Single output	150 x 86 x 140mm
SS-600ES	600W	PS2 Single output	150 x 86 x 140mm
R4S-400G1V2	400W	Mini Redundant	150 x 86 x 174mm
R4S-500G1V2	500W	Mini Redundant	150 x 86 x 174mm
R4B-600G1V2	600W	Mini Redundant	150 x 86 x 199mm
R4B-700G1V2	700W	Mini Redundant	150 x 86 x 199mm
R4B-800G1V2	800W	Mini Redundant	150 x 86 x 199mm

Appendix B Motherboard

Compatible AICSYS Motherboard are listed in the table below:

Model number	Type	PCI	PCIe	ISA	PSU type
MBC-6612	ATX	1	6 (Gen 3)	N/A	ATX
MBC-6608	ATX	3	2	N/A	ATX
MBC-6607	ATX	3	4	N/A	ATX
MBC-6250	MicroATX	2	2	N/A	ATX
MBC-6603	MicroATX	2	2	N/A	ATX
...etc.					

** Please contact Aicsys for more compatible models..*

Appendix C Backplane

Compatible AICSYS Backplanes are listed in the table below:

Model number	PCI	PCIe x16	PCIe x1	ISA
BPE-1308A	8	1	3	N/A
BPE-1404PE	4	1	4	4
BPE-1413A	13	N/A	N/A	N/A
BP-1404P	4	N/A	N/A	8
BP-1407A	7	N/A	N/A	5
BP-1412A	12	N/A	N/A	1

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