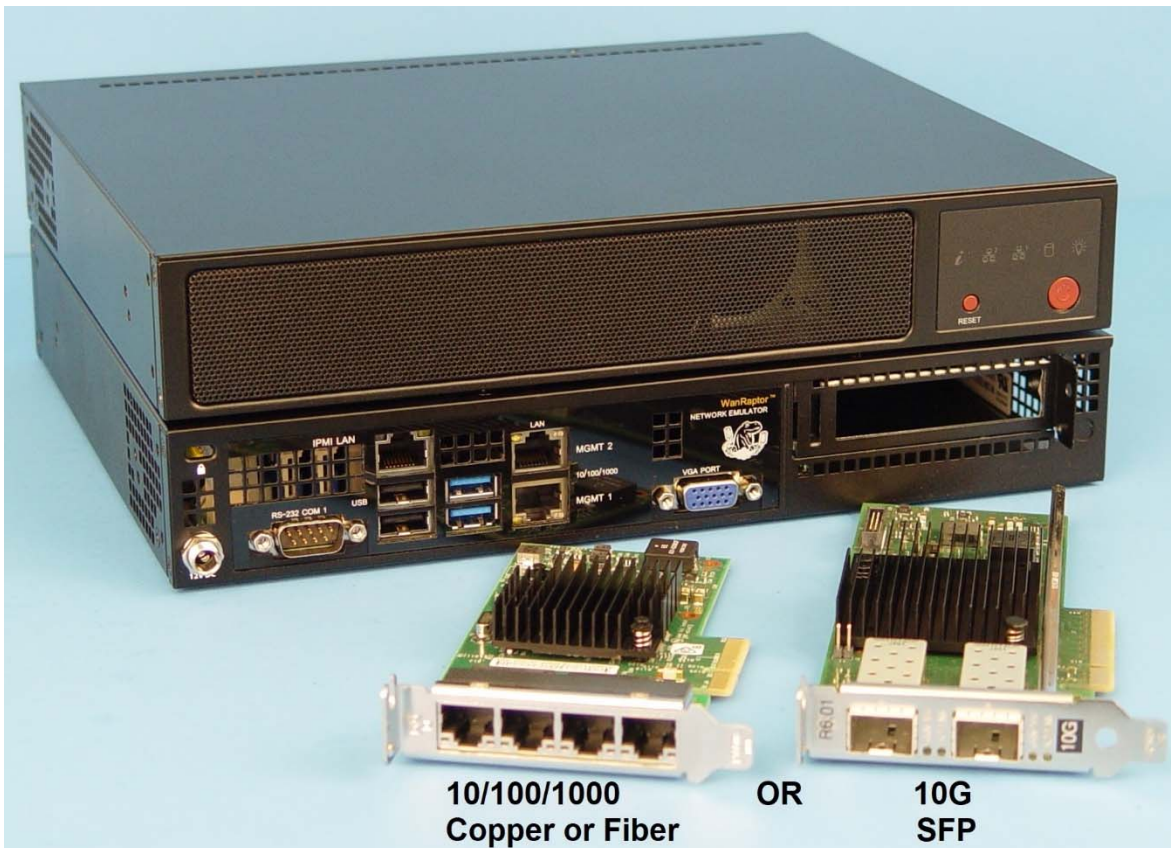


EAST COAST D A T A C O M , I N C .

- Products for Global Networks -

PDS-1/10G, Portable Emulator



CHASSIS USER'S MANUAL

Revision 1.0

SAFETY WARNING

Always observe standard safety precautions during installation, operation and maintenance of this product. To avoid the possibility of electrical shock, be sure to disconnect the power cord from the power source before you remove the IEC power fuses or perform any repairs.

PROPRIETARY NOTICE

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PUBLICATION NOTICE

This manual has been compiled and checked for accuracy. The information in this manual does not constitute a warranty of performance. E.C.D. reserves the right to revise this publication and make changes from time to time in the content thereof. E.C.D. assumes no liability for losses incurred as a result of out-of-date or incorrect information contained in this manual.

Preface

About this Manual

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the chassis. Installation and maintenance should be performed by experienced technicians only.

This document lists compatible parts available when this document was published. Refer to the ECDATA.COM web site for updates on supported parts and configurations.

This manual may be periodically updated without notice. Please check the ECDATA.COM website for possible updates. (<http://www.ECDATA.COM>).

Notes

If you have any questions, please contact our support team at:

[support \(at\) ecdata.com](mailto:support@ecdata.com)



Warning! Indicates important information given to prevent equipment/property damage or personal injury.



Warning! Indicates high voltage may be encountered when performing a procedure.

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Chapter 1

Introduction

The PDS-1/10G Network Emulator is a compact embedded appliance, optimized for a Mini-ITX motherboard. The system supports 32G of RAM, XEON E-2146G and M.2 Flash Drive. The PDS-1/10G chassis is a state-of-the-art embedded system. During the warranty period, DO NOT attempt to take apart the system for any repairs.

1.1 Features

The following table provides you with an overview of the main features of the PDS-1/10G.

Features
Chassis
PDS-1/10G
Drives
One M.2 Flash Drive
Power
One 120W AC/DC Power Supply, 12VDC-DC ATX Power Adapter Card
Cooling
Two 4-cm chassis fans for system cooling, One Active CPU Fan
Expansion Slots
One PCIe low profile x8 slot
Motherboard Form Factor
Flex-ATX and Mini-ITX
Dimensions
(WxHxD) 10 x 1.7 x 8.9 in. (254 x 43 x 226 mm)
Front Panel
Power button, Reset button, five LED status indicators

Front Features

The front of the chassis includes the control panel.

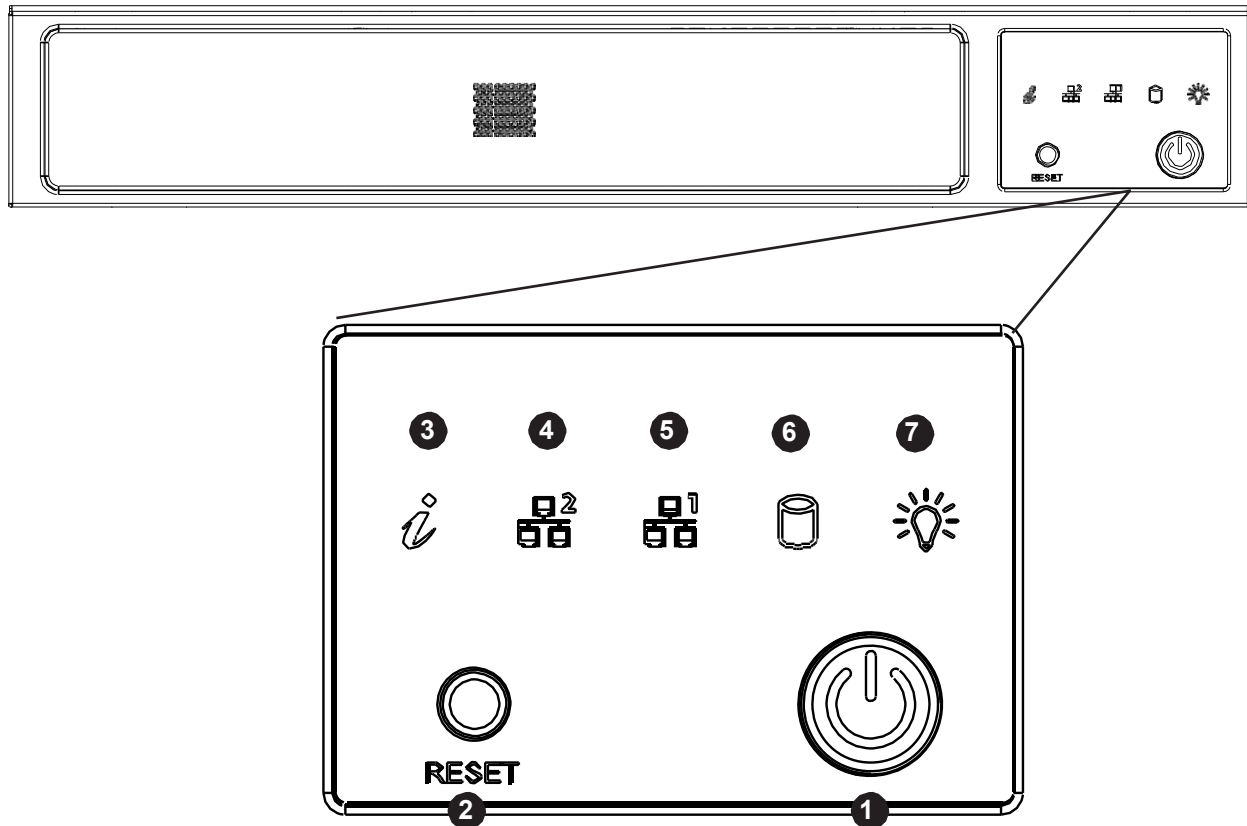


Figure 1-1. Chassis Front and Control Panel

Control Panel Features		
Item	Features	Description
1	Power button	The main power switch applies or removes primary power from the power supply to the server but maintains standby power. To perform most maintenance tasks, unplug the system to remove all power.
2	Reset button	Resets the system.
3	Information LED	Alerts operator to several states, as noted in the table below.
4 and 5	NIC LED	Indicates network activity on the LAN when flashing.
6	HDD LED	Indicates hard disk drive activity when flashing.
7	Power LED	Indicates power is being supplied to the system power supply units. This LED is illuminated when the system is operating normally.

Information LED	
Status	Description
Continuously on and red	An overheat condition has occurred. (This may be caused by cable congestion.)
Blinking red (1Hz)	Fan failure, check for an inoperative fan.
Blinking red (0.25Hz)	Power failure, check for a non-operational power supply.
Solid blue	Local UID has been activated. Use this function to locate the server in a rack mount environment.
Blinking blue	Remote UID is on. Use this function to identify the server from a remote location.

Rear Features

The chassis rear Panel holds input/output ports. ***Picture varies by model purchased***

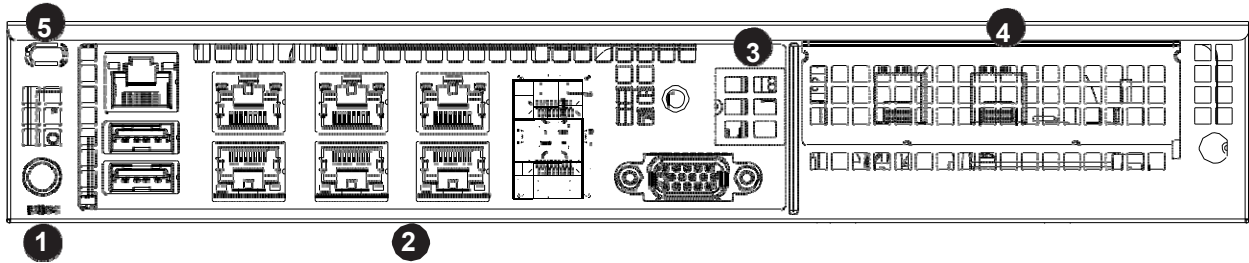


Figure 1-2. Rear Chassis View

Rear Chassis Features		
Item	Features	Description
1	Power Input	The main power switch applies or removes primary power from the power supply to the server but maintains standby power. To perform most maintenance tasks, unplug the system to remove all power.
2	I/O ports	IPMI LAN, USB, LAN, SFP LAN, VGA
3	RJ45 window	Opening for an optional serial connector using an RJ45 jack
4	PCI window	Standard low-profile
5	K-slot for lock	Accepts a standard Kensington cable locking device (not included).

1.2 Optional 1U Rack Mounting Brackets

Installing Rack Mounting Brackets

The chassis can be mounted in a rack using two rack brackets and a two-part power adapter shelf bracket (optional, MCP-290-10110-0B).

1. Attach the rack brackets using three screws through the holes in each bracket to secure the bracket to the chassis.
2. Install the handles, using two screws through the bracket and into each handle.

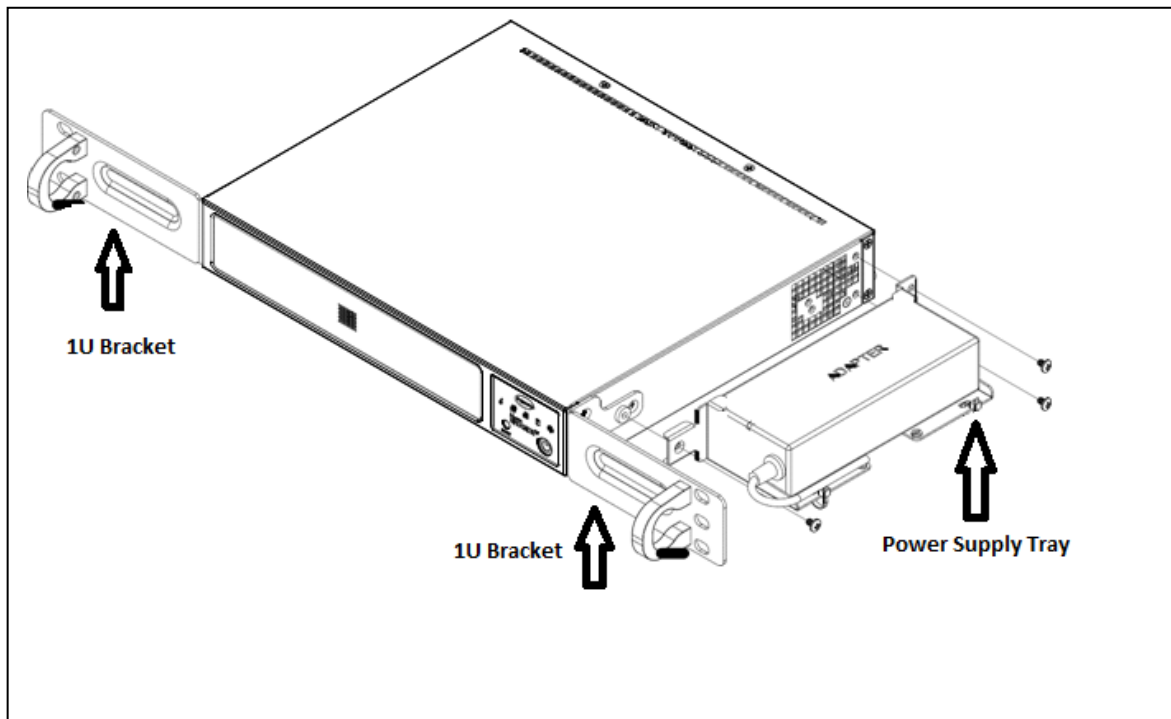


Figure 1-5. Installing Rack Mounting Brackets

3. If you are using the optional power adapter bracket, install the power adapter on its bracket. Place it as shown, then add the retention bracket using two screws.
4. Mount the power adapter bracket assembly on the right side of the chassis using three screws.

Mounting on a Wall

Optionally, the chassis can be mounted directly on a wall, using holes in the bottom.

1. Measure and install two screws into the wall where you want to mount the server.
2. Hang the server on the screws with the Input/Output ports on the top.

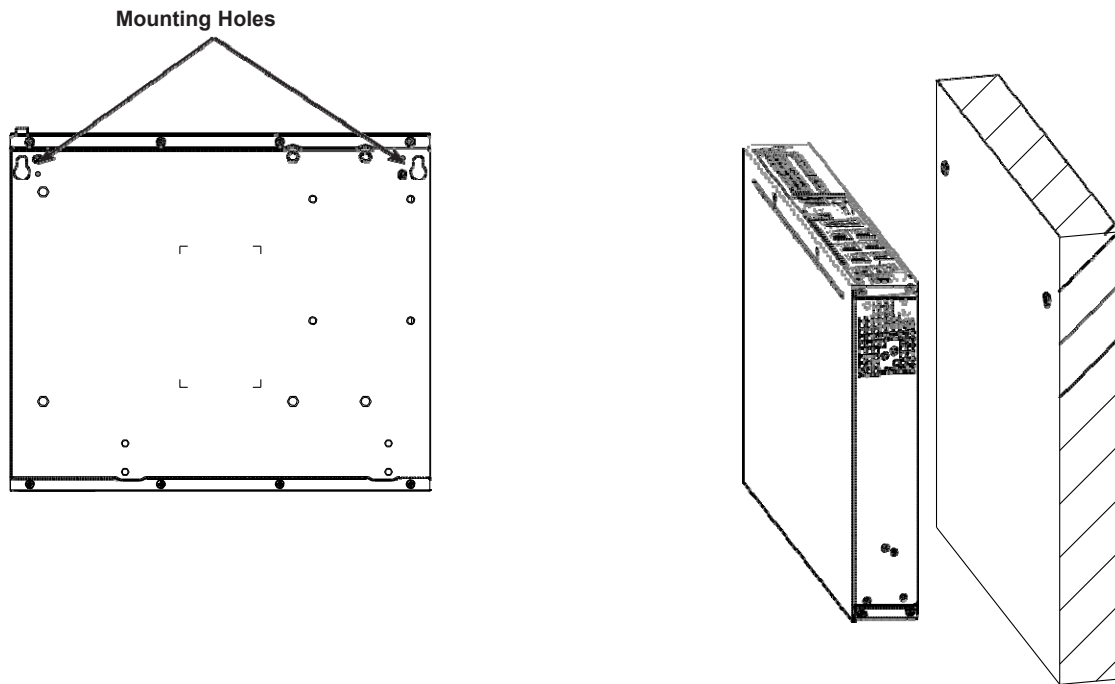


Figure 1-6. Mounting on a Wall

1.3 Unpacking the System

Inspect the box in which the chassis was shipped and note if it was damaged. If any equipment appears damaged, file a damage claim with the carrier who delivered it.

1.4 Where to get Replacement Components

If you need replacement parts for your system, to ensure the highest level of professional service and technical support, purchase exclusively from ECDATA.COM at: <https://www.ECDATA.COM>.

1.5 Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton and mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete.

Whenever possible, repack the chassis in the original ECDATA.COM carton, using the original packaging material. If these are no longer available, be sure to pack the chassis securely, using packaging material to surround the chassis so that it does not shift within the carton and become damaged during shipping.

This warranty only covers normal consumer use and does not cover damages incurred in shipping or from failure due to the alteration, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

Chapter 2

Maintenance and Component Installation

This chapter provides instructions on installing and replacing main system components. To prevent compatibility issues, only use components that match the specifications and/or part numbers given.

Installation or replacement of most components require that power first be removed from the system. Please follow the procedures given in each section.

2.1 Removing Power

Use the following procedure to ensure that power has been removed from the system. This step is necessary when removing or installing non hot-swap components

Powering Down

1. Use the operating system to power down the system.
2. After the system has completely shut-down, disconnect the AC power cord from the power source.
3. Disconnect the power cord from the chassis.

2.2 Accessing the System

The PDS-1/10G features a removable top cover to access to the inside of the chassis.

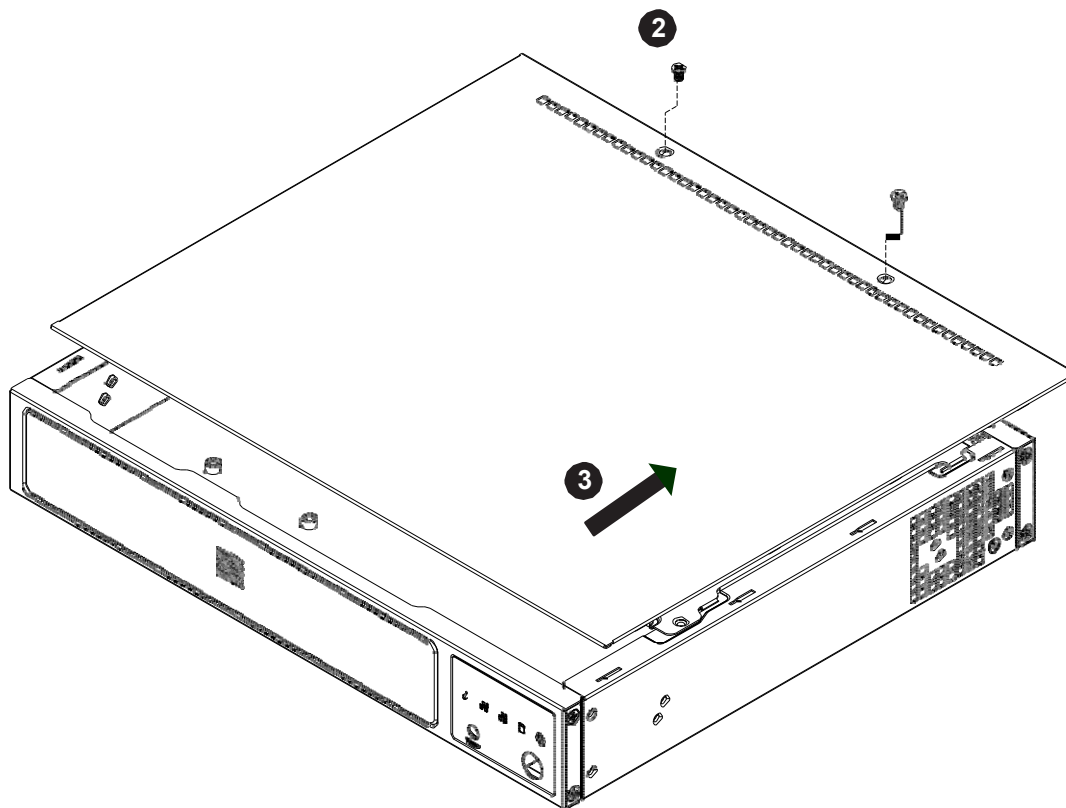


Figure 2-1. Removing the Chassis Cover

Removing the Top Cover

1. Power down the system as described in section 2.1.
2. Remove the two screws that hold the cover in place.
3. Slide the cover sideways as illustrated above to release the front and rear cover hooks from the chassis.
4. Lift the cover up and off the chassis.

Caution: Except for short periods of time, do *not* operate the server without the cover in place. The chassis cover must be in place to allow proper airflow and prevent overheating.

2.3 Chassis Components

Installing a Storage Drive **(FACTORY OPTION ON SOME MODELS)**

The PDS-1/10G ships with one M.2 Flash Storage Drive. It contains the Linux operating system and the proprietary code of the Network Emulator. Users are not allowed to access this code. The only user access is the GUI interface and GUI Scripting.

Installing the Hard Drive (For Ref ONLY)

The motherboard should be installed before installing the drive.

1. Make sure there is no power to the system as described in section 2.1 and remove the chassis cover.
2. Remove the screws securing the hard drive tray to the support bracket and set them aside for later use. Lift the tray out.
3. Place the drive into the tray and secure it to the tray with the screws provided with drive.

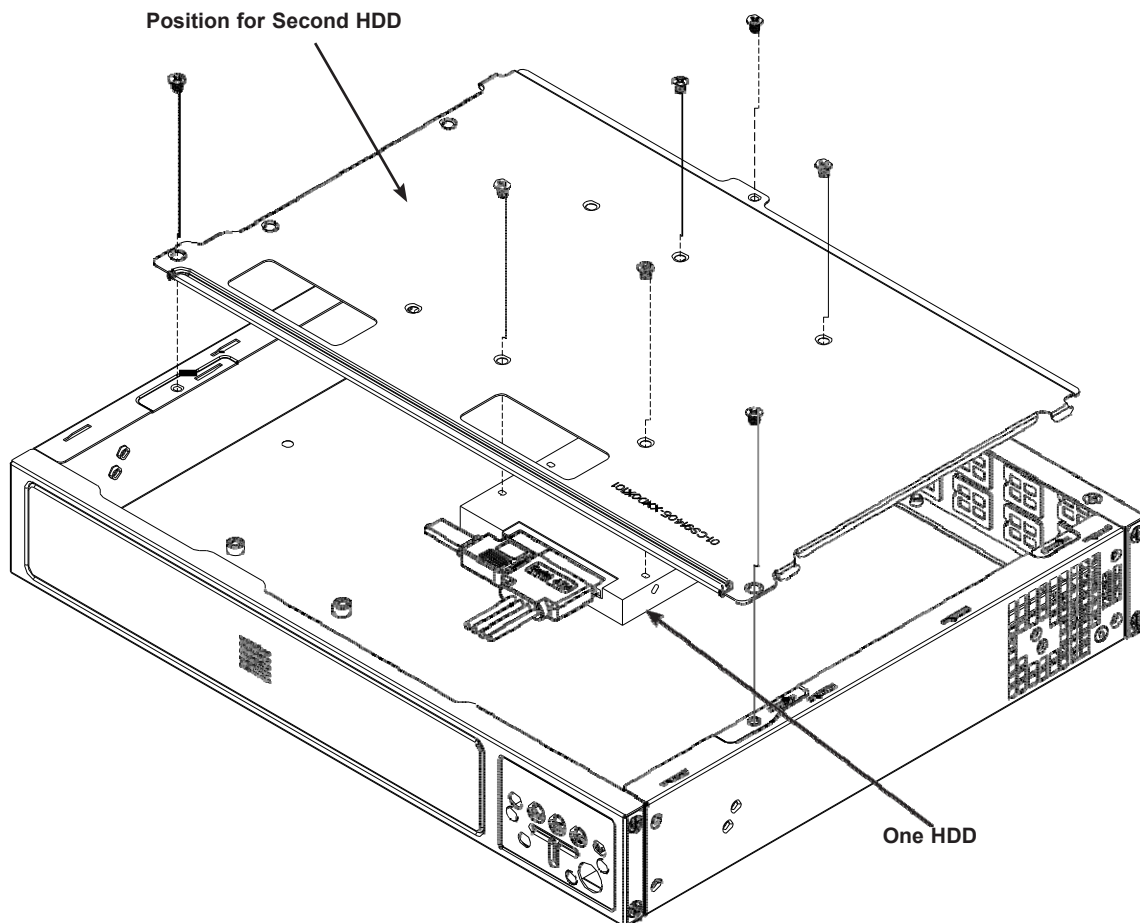


Figure 2-2. Installing the Hard Drive

4. Return the drive tray assembly into the chassis, aligning the tabs of the tray with the slots in the chassis. Secure the tray to the chassis support bracket with the screws previously set aside.
5. Attach the cable SATA connector and to the motherboard connector. This cable carries both the SATA signal and the SATA power.
6. Reinstall the chassis cover and power up the system.

REMOVING THE RISER CARD

The system supports one PCIe x8 expansion card. The riser card is inserted in the expansion slot on the motherboard. Installation of the riser card and riser card bracket is pictured below. To Change the PCIe 10/100/1000 Copper or 10G Fiber cards, REMOVE the TOP 2 SCREWS and CAREFULLY remove the riser card and swap the NIC cards.

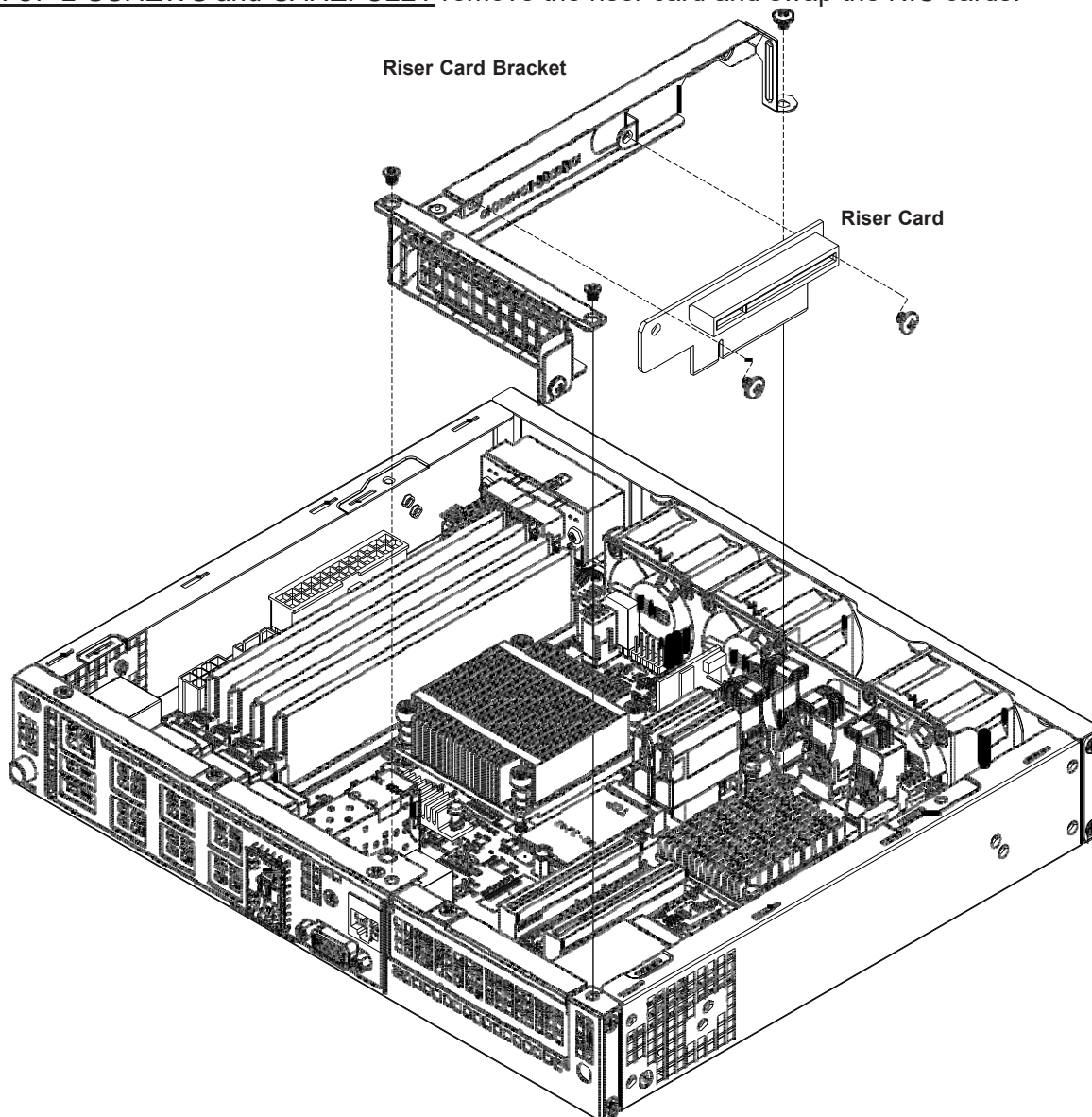


Figure 2-3. Changing the NIC Cards

System Cooling

The PDS-1/10G includes two replaceable 4-cm fan. Optional fans can be purchased. The Fan speed can be adjusted from MAX to I/O Intense via the IPMI Port at 192.168.50.1 Login: ADMIN Password: ADMIN (255.255.255.0)

Replacing the System Fan

1. Power down the system as described in section 2.1 and remove the AC power cord and the chassis cover.
2. Remove the failed fan power cable from motherboard.
3. Remove the screws securing the fan to the chassis wall and save them.
4. Lift the fan out of the chassis.
5. Align the replacement fan with the holes in the wall of the chassis.
6. Secure the fan to the chassis wall using the screws previously set aside.
7. Reconnect the fan cable to motherboard.
8. Reinstall the chassis top cover, reconnect the AC power cord and power up the system.

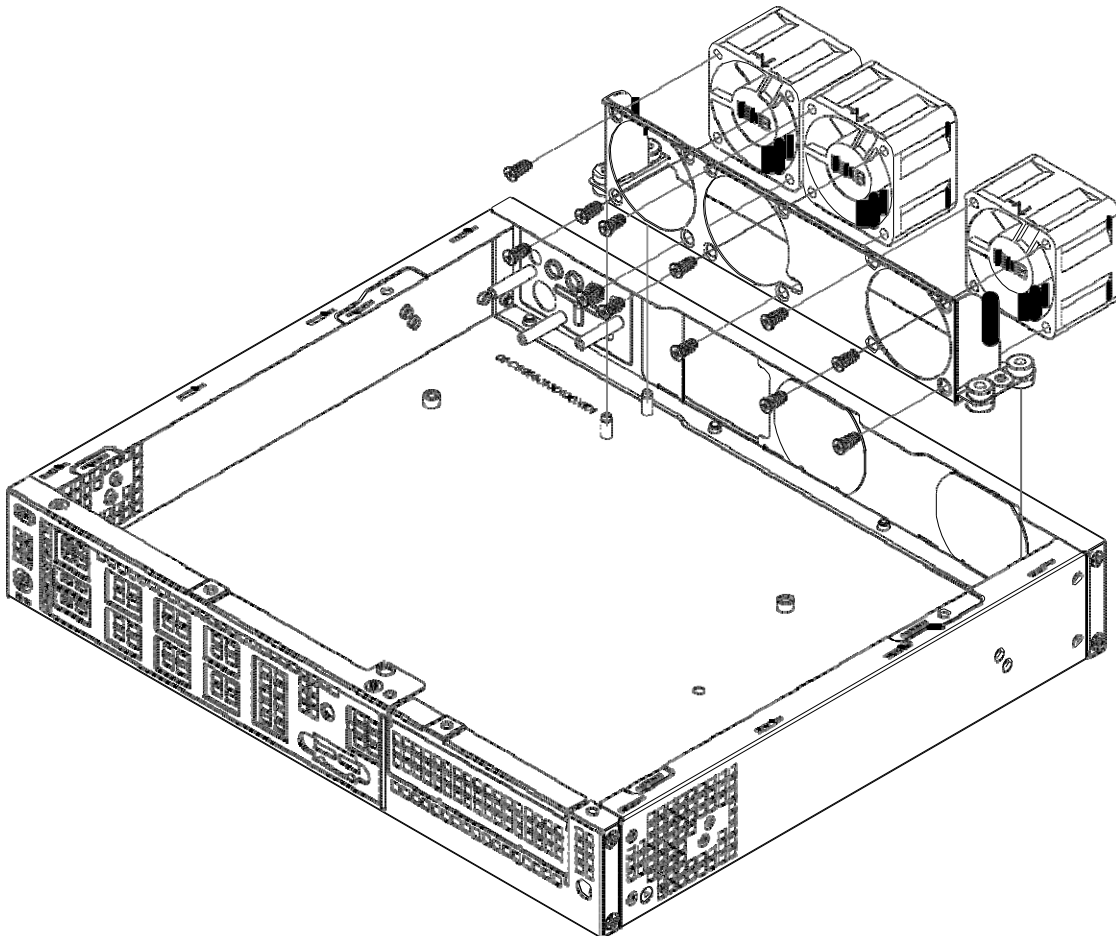


Figure 2-4. System Fans (including optional fans)

Appendix A

Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

External AC/DC 120W Adapter	
MFR Part #	MCP-250-10127-0N
Input	120W AC to 12V DC power adapter with US power cord 18AWG

Internal DC/DC Converter	
ECDATA Part #	711020
Input	150W-XT 12V DC-DC ATX power supply

Appendix B

Standardized Warning Statements for AC Systems

About Standardized Warning Statements

The following statements are industry standard warnings, provided to warn the user of situations which have the potential for bodily injury. Should you have questions or experience difficulty, contact ECDATA.COM's Technical Support department for assistance. Only certified technicians should attempt to install or configure components.

Read this appendix in its entirety before installing or configuring components in the ECDATA.COM chassis.

Warning Definition



Warning! This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

Installation Instructions



Warning! Read the installation instructions before connecting the system to the power source.

Circuit Breaker



Warning! This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 20 A.

Power Disconnection Warning



Warning! The system must be disconnected from all sources of power and the power cord removed from the power supply module(s) before accessing the chassis interior to install or remove system components.

Equipment Installation



Warning! Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

Battery Handling



Warning! There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions

Backplane Voltage



Warning! Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.

Comply with Local and National Electrical Codes



Warning! Installation of the equipment must comply with local and national electrical codes.

Product Disposal



Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

Power Cable and AC Adapter



Warning! When installing the product, use the provided or designated connection cables, power cables and AC adaptors. Using any other cables and adaptors could cause a malfunction or a fire.