

NPC-8207

2U C206 中高端网络硬件平台

**2U C206 Medium and High End Network  
Platform**

Version: C03

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## Safety Instructions

1. Please read this manual carefully before using the product;
2. Before inserting, removing or re-configuring motherboards or expansion cards, first disconnect the computer and peripherals from their power sources to prevent electric shock to human bodies or damage to the product;
3. Before moving the product, please unplug the AC cable from the power socket;
4. When inserting or removing boards, please firstly unplug the AC power cable;
5. Before connecting or disconnecting any signal cable, make sure all power cables are unplugged in advance;
6. After turning off the computer, wait at least 30 seconds before turning it back on;
7. All the operations such as upgrade, remove or installation shall be implemented on the ESD worktable, because some exactitude components are sensitive to electrostatic discharge (ESD).
8. If there's no ESD worktable, please take the following measures to prevent damage from electrostatic discharge (ESD):
  - a) Wear a antistatic wrist strap and connect it with the metal part of the corresponding product;
  - b) Always touch the metal enclosure or frame before touching any components;
  - c) Keep part of your body in contact with the metal enclosure to discharge the static while handling components;
  - d) Avoid unnecessary movement;
  - e) Hold the components (especially the boards) by the edges;
  - f) Place the components on a grounded, static-free operating platform. Use a conductive foam pad if available (not the component wrapper).
  - g) Do not let the components slide on the operating platform.
9. Use cross-head screwdriver to operate. A magnetic screwdriver is recommended (Magnet helps to prevent screws from remaining in the enclosure). Do not leave any tools or accessories inside the enclosure;
10. Ensure abundant cooling and ventilation.
11. Non-professional personnel are not allowed to open the enclosure.

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## Chapter 1 Product Introduction

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### Overview

NPC-8207 is a medium and high end network platform based on X86 architecture. The PC adopts standard 2U, 19" rack mount and modular design, which facilitates the expansion of network and storage function; therefore, it is ideally suitable for various network applications.

It adopts Intel® PCH C206 server chipset, supports Intel® new generation Sandy Bridge and Ivy Bridge processor, provides four DDR3 DIMMs up to 16GB, two Gigabit electric ports and three front-built network module expansion slots based on PCIe.

The product supports two drawable hard disk trays, which supports 3.5" standard hard disk; it also supports one CF card and one IDE DOM disk as the data storage device. There are two USB ports, one COM port (RJ45 supports serial port redirection function), two Gigabit electric ports and three EVOC ENM series network module slots on the front panel of the chassis. One PCI slot and one PCIe x8 slot are expandable on the rear panel by conversion board, so as to expand the additional functions.

It supports various module cards, such as two electrics, two optics, two electrics and two optics, four optics, four electrics, eight optics, eight electrics, four optics and four electrics, etc., which can be powered by AC, DC and single power supplies. The product is ideally suitable for hardware requirements in various network applications, such as firewall, anti-virus wall, load balance, VPN, DNS and AAA, etc.

## **Main Function**

### **Microprocessor**

Supports Intel® Socket FCLGA1155 package Sandy Bridge CPUs, such as Xeon E3-1275, Xeon E3-1225, I3-2120 and I5-2500; Supports Ivy Bridge CPUs, such as Xeon E3-1225V2, I5-3550S and I7-3770.

### **Chipset**

C206

### **Memory**

Provides four 240Pin DDR3 memory slots, supporting ECC and non-ECC un-buffered and dual channel function. The maximum memory capacity supported by a single memory slot is up to 4GB and the total memory capacity is up to 16 GB.

### **Network Function**

Provides two 10/100/1000Mbps LAN ports, LAN1 supports Wake-on-LAN function.

### **Display Function**

- Supports CRT display; hot swap function;
- The supported maximum resolution and refresh rate is 2048x1536@75Hz.

### **External IO**

Front-built

- 2 x USB port
- 2 x LAN port
- 1 x COM port (RJ45)

- 3 x network expansion module connector

#### Rear-built

- Power switch
- Bypass switch
- VGA connector (reserved)

### Other Feature

The structure supports -48V DC, 220V single AC power, the 300W single AC power is the standard configuration.

### Expansion Bus

- One PCI slot on-board and one PCIe x8 slot expandable at the rear of the chassis by conversion;
- Three PCIe x8 slots, supporting front-built network module.

### Power Feature

- Input Voltage/Frequency: 220VAC/50Hz (adapter input);
- Power Consumption of PC: 65W (Standby); Power Consumption of PC: 140 W (100% operates 3D);

### Main Performance

#### Mechanical Dimensions, Weight and Environment

- Dimensions: 550mm (L) x 440mm (W) x 88.1mm (H);
- Net Weight: 10.7Kg;
- Operating Environment:

Temperature: 0°C ~ 45°C;

Humidity: 40°C, 30% ~ 90% (non-condensing);

➤ Storage Environment:

Temperature: -10°C ~ 55°C;

Humidity: 40°C, 30 ~ 90% (non-condensing).

## EMC

- Radiation disturbance is compliant with GB9254-2008, class A;
- Conducted susceptibility meets the threshold of GB/T 17618-1998;

## Reliability

- MTBF $\geq$ 50000h;
- MTTR $\leq$ 0.5h.

## Safety

Meets the basic requirements of GB4943;

## Mounting Mode

- ☒ 19" Rack Mount      ☐ Desktop      ☐ Embedded Panel  
☐ Wall Mount      ☐ VESA Standard Arm      ☐ Portable  
☐ Others \_\_\_\_\_



## **Requirements of Transportation and Storage**

### **● Transportation**

Well-packaged products are suited for transportation by truck, ship, and plane. During transportation, products should not be put in open cabin or carriage. During transshipping, products should not be stored in open air without protection from the atmospheric conditions. Products should not be transported together with inflammable, explosive and corrosive substances and are not allowed to be exposed to rain, snow and liquid substances and mechanical force.

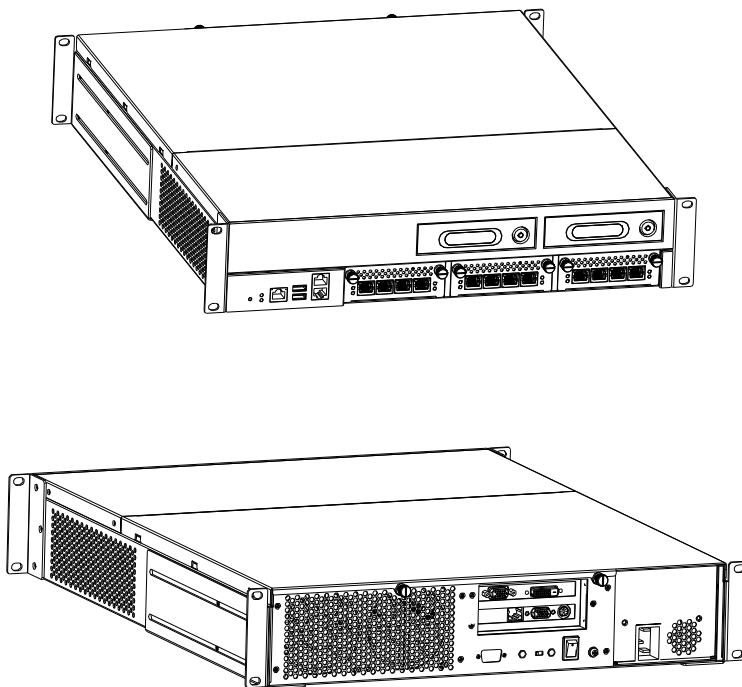
### **● Storage**

Products should be stored in package box when it is not used. And warehouse temperature should be 0°C ~ 40°C, and relative humidity should be 20% ~ 85%. In the warehouse, there should be no harmful gas, inflammable, explosive products, and corrosive chemical products, and strong mechanical vibration, shock and strong magnetic field interference. The package box should be at least 10cm above ground, and 50cm away from wall, thermal source, window and air inlet.

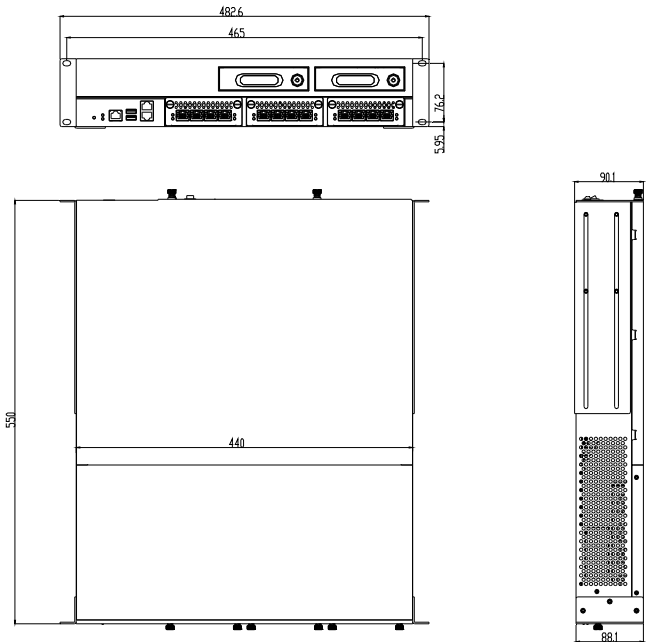
## Chapter 2 Installation

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### Product Outline

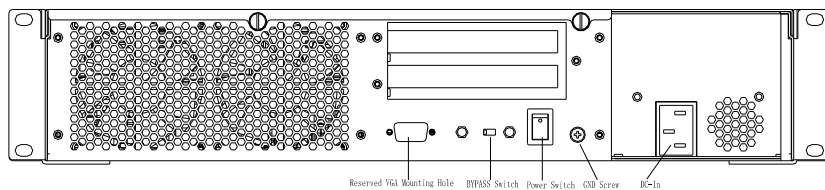
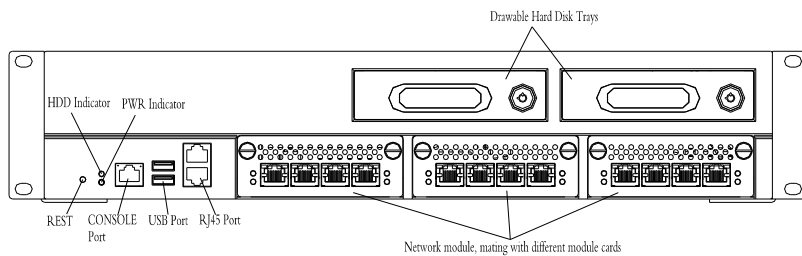


Product Appearance and Installation Dimensions

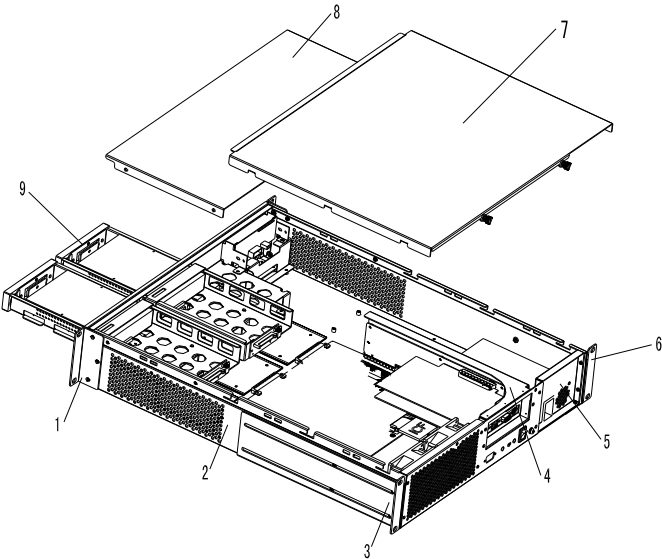


Unit: mm

## External Connectors



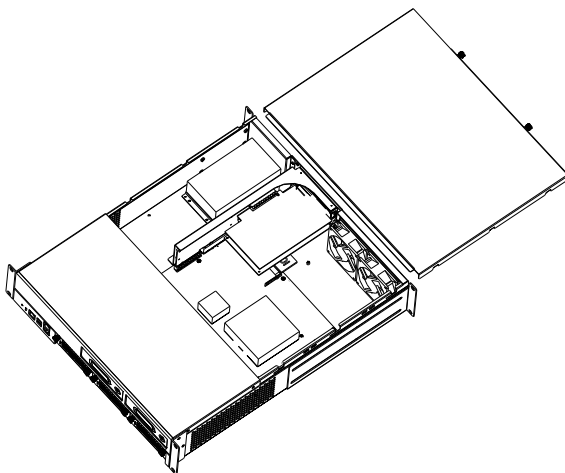
Overall Assembly Drawing



1. Hanger	2. Chassis
3. Right Rear Hanger	4. Conversion Expansion Module
5. Power	6. Left Rear Hanger
7. Cover	8. Front Cover
9. Drawable Hard Disk	

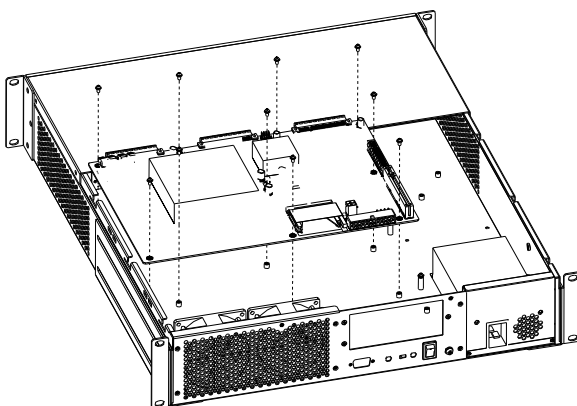
## Installing the Cover

Loosen the two captive screws on the backplane of the chassis and then draw the cover backward with force to open it.

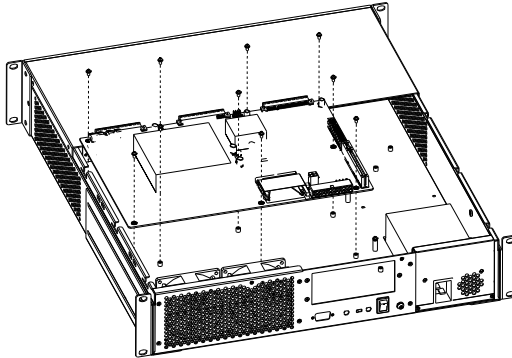


## Installing and Removing the Motherboard

Installing the motherboard: lay the motherboard at the corresponding position in chassis and then fix it by ten M3 pan head combo screws.

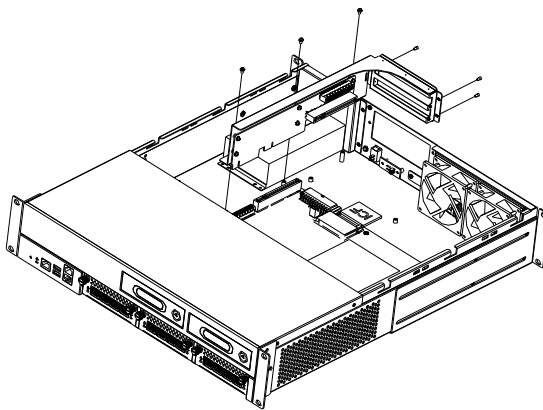


Removing the Motherboard: open the cover first, remove the patch board module and then loosen the ten M3 screws fixing the motherboard to remove it.



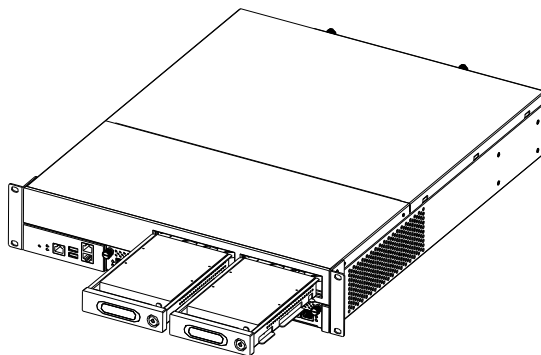
### Installing the Patch Board

First, fix the patch board with the patch board bracket by six M3 screws, insert the module into the corresponding slot on motherboard and then fix it from top and rear of the chassis by three pan head screws and three counter sunk head screws respectively.



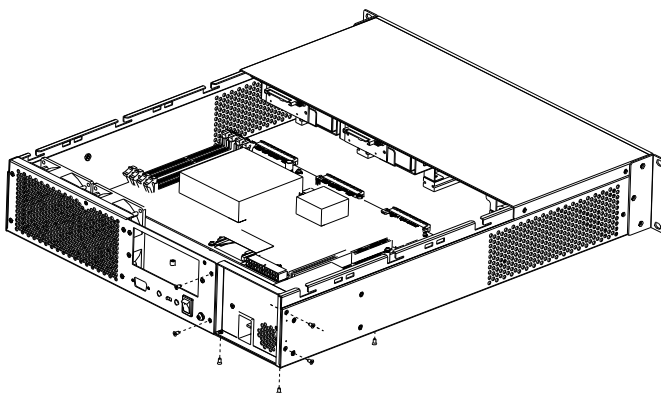
## Installing the Driver

Unlock the hard disk trays with the key enclosed in the accessory package, hold the handle of the hard disk tray and put outward, then the hard disks can be pulled out of the chassis so as to replace or install the hard disks.



## Installing the Power

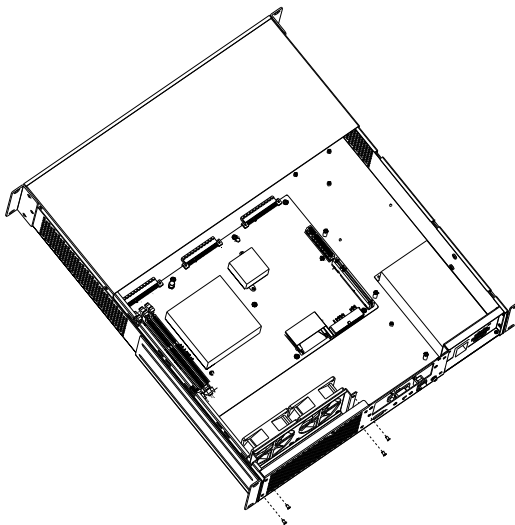
First, fix the power with the power bracket by two counter sunk head #6-32\*1/4 screws; lay the module at the corresponding position in chassis and then fix it from the bottom, the rear and the near side of the chassis by six M3 counter sunk head screws and two counter sunk head #6-32\*1/4 screws respectively.





## Installing the Fan

First, fix the two fans with the fan bracket by eight ST4.8\*10 screws; lay the module at the corresponding position in chassis and then fix the fan bracket from external of the chassis by four M3 counter sunk head screws.



## **Chapter 3 Installing the Drivers**

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Regarding the installation of the driver program and the detailed information of the motherboard, please refer to the enclosed CD of the PC.