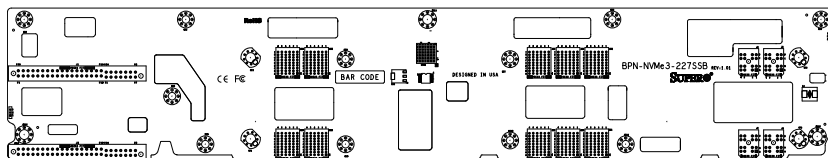


SUPERO®

BPN-NVMe3-227SSB Midplane



USER'S GUIDE

Revision 1.0

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WARNING: Handling of lead solder materials used in this product may expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm.

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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.

For faster service, RMA authorizations may be requested online (<http://www.supermicro.com/support/rma/>).

Whenever possible, repack the midplane in the original Supermicro box, using the original packaging materials. If these are no longer available, be sure to pack the midplane in an anti-static bag and inside the box. Make sure that there is enough packaging material surrounding the midplane so that it does not 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.

Notes

Chapter 1

Safety Guidelines

To avoid personal injury and property damage, carefully follow all the safety steps listed below when accessing your system or handling the components.

1-1 ESD Safety Guidelines

Electrostatic Discharge (ESD) can damage electronic components. To prevent damage to your system, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.

- Use a grounded wrist strap designed to prevent static discharge.
- Touch a grounded metal object before removing a component from the antistatic bag.
- Handle the midplane by its edges only; do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling chips or modules, avoid touching their pins.
- Put the card and peripherals back into their antistatic bags when not in use.

1-2 General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the BPN-NVMe3-227SSB series midplane.
- Make sure that the midplane is properly and securely on the motherboard to prevent damage to the system due to power outages.

1-3 An Important Note to Users

All images and layouts shown in this user's guide are based upon the latest midplane revision available at the time of publishing. The card you have received may or may not look exactly the same as the graphics shown in this manual.

1-4 Introduction to the BPN-NVMe3-227SSB Midplane

The BPN-NVMe3-227SSB midplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-NVMe3-227SSB Revision 1.01, the most current release available at the time of publication. Always refer to the Supermicro website at www.supermicro.com for the latest updates, compatible parts and supported configurations.

1-5 Overview of the BPN-NVMe3-227SSB Midplane

The BPN-NVMe3-227SSB midplane is divided into two sections, with the primary components (labeled A) on the upper portion of the front side of the board and the secondary components (labeled B) on the lower portion of the front side of the board..

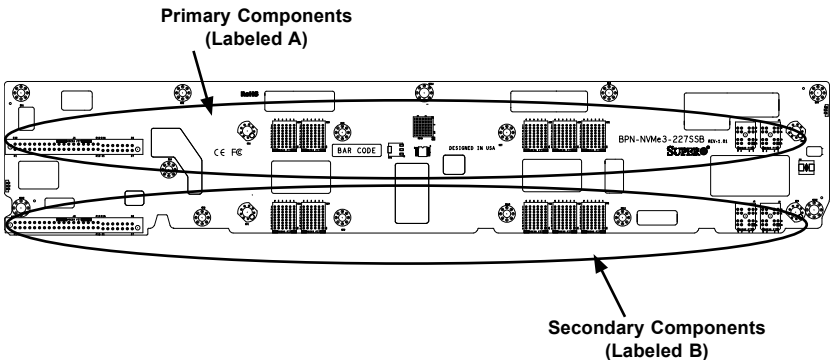


Figure 1-1. BPN-NVMe3-227SSB Midplane

Chapter 2

Front Connectors

2-1 Front Connectors

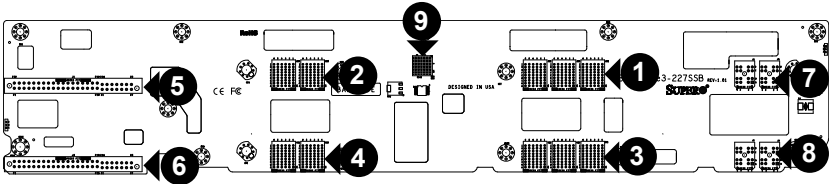


Figure 2-1. Front Connectors

- | | |
|--|----------------------------------|
| 1. Primary AirMAX Connectors:
AM1-AM3 | 5. Primary Power Connector: J1 |
| 2. Primary AirMAX Connectors:
AM4-AM5 | 6. Secondary Power Connector: J2 |
| 3. Secondary AirMAX Connectors:
BM1-BM3 | 7. Primary Connectors: J3-J4 |
| 4. Secondary AirMAX Connectors:
BM4-BM5 | 8. Secondary Connectors: J4-J5 |
| | 9. Microcontroller: U148 |

2-2 Front Connector and Pin Definitions

1. - 2. Primary AirMAX Connectors:

The primary AirMAX VSe connectors are designated AM1 through AM5 and are for PCIe links.

3. - 4. Secondary AirMAX Connectors:

The secondary AirMAX VSe connectors are designated BM1 through BM5 and are for PCIe links.

5.-6. Midplane Main Power Connectors

The power connectors are designated J1 and J2. They provide power to the midplane.

7. Node A Power Connectors

The power connectors for Node A are designated J3 and J4.

8. Node B Power Connectors

The power connectors for Node B are designated J5 and J6.

9. Microcontroller

The microcontroller is designated U148.

2-3 Rear Connectors

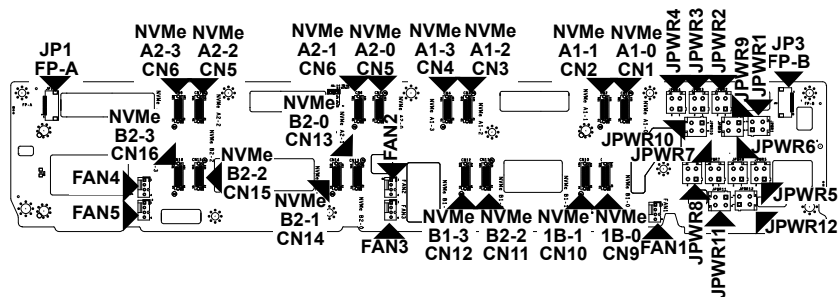


Figure 2-2. Rear Connectors

Rear Connectors	
Rear Connector	Description
JP1, FP-A	Front panel connector for motherboard node A
JP3, FP-B	Front panel connector for motherboard node B
FAN1 through FAN5	Fan connectors
NVMe A1-0 through NVMe A1-3	MB node A, primary PCIe bus, 0 -3 of the PCIe bus
NVMe A2-0 through NVMe A2-3	MB node A, secondary PCIe bus, 0 -3 of the PCIe bus
NVMe B1-0 through NVMe B1-3	MB node B, primary PCIe bus, 0 -3 of the PCIe bus
NVMe B2-0 through NVMe B2-3	MB node B, secondary PCIe bus, 0 -3 of the PCIe bus
JPWR1 through JPWR12	Power connectors

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