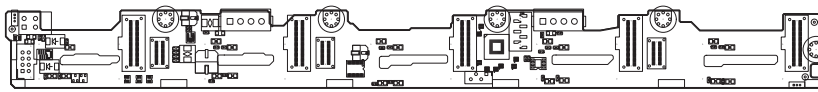

BPN-SAS3-LB16A-N10 Backplane

USER'S GUIDE

Rev. 1.0

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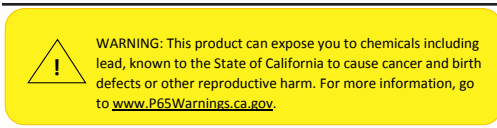

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User's Guide Revision 1.0

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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 backplane in the original Supermicro box, using the original packaging materials. If these are no longer available, be sure to pack the backplane in an anti-static bag and inside the box. Make sure that there is enough packaging material surrounding the backplane 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.

Secure Data Deletion

A secure data deletion tool designed to fully erase all data from storage devices can be found on our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wftp/utility/Lot9_Secure_Data_Deletion_Utility/

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 backplane 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 backplane.
- Disconnect the power cable before installing or removing any cables from the backplane.
- Make sure that the backplane is securely and properly installed on the motherboard to prevent damage to the system due to power shortage.

1-3 An Important Note to Users

- All images and layouts shown in this user's guide are based upon the latest PCB 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-SAS3-LB16A-N10 Backplane

The BPN-SAS3-LB16A-N10 backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

Always refer to the Supermicro Web site at www.supermicro.com for the latest updates, compatible parts, and supported configurations.

Chapter 2

Connectors and Pin Definitions

2-1 Front Connectors

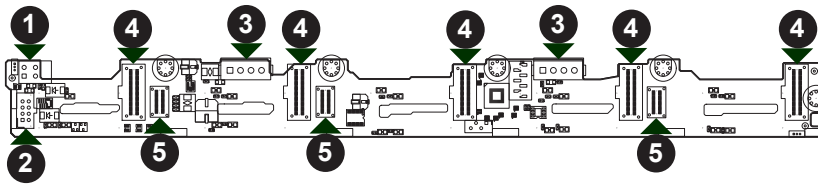

Figure 2-1. Front Connectors

1. 2x2 Power Connector: JPW3.
2. 2x4 Power Connector: JPWR1.
3. 1x4 Power Connectors: JPW1 and JPW2.
4. SlimSAS x8 Connectors: NVMe1-NVMe5.
5. SlimSAS x4 Connectors: CN1, CN2, and CN3.

2-2 Front Connector Pin Definitions

#1-3. Backplane Main Power Connectors

These connectors provide power to the backplane. The 2x2 connector is designated JPW3, the 2x4 connector is designated JPWR1, and the 1x4 connectors are designated JPW1 and JPW2. JPWR1 is used by MegaDC systems, and JPW1, JPW2, and JPW3 are used by other systems. See the tables on the right for pin definitions.

2x2 Power Connector (JPW3)

Pin#	Definition
1, 2	Ground
3, 4	+12V

2x4 Power Connector (JPWR1)

Pin#	Definition
1-4	Ground
5-8	+12V

1x4 Power Connectors (JPW1 and JPW2)

Pin#	Definition
1	+12V
2, 3	Ground
4	none

#4. SlimSAS x8 Connectors

Connect NVMe drive cables to these NVMe ports, designated NVMe1-NVMe5, when configuring the NVMe drives. NVMe1 is for drives at NVMe#0-1, NVMe2 is for drives at NVMe#2-3, NVMe3 is for drives at NVMe#4-5, NVMe4 is for drives at NVMe#6-7, and NVMe5 is for drives at NVMe#8-9 (see section 2-3 for NVMe drive locations). SlimSAS cables should be used to connect these ports to the corresponding ports on a motherboard.

#5. SlimSAS x4 Connectors

Connect a SAS/SATA drive cable to these ports when configuring the SAS/SATA drives. The ports are designated CN1, for drives at SAS#0-3, CN2, for drives at SAS#4-7, and CN3, for drives at SAS#8-9 (see section 2-3 for drive locations). The ports are also compatible with SATA drives. However, mixing SAS and SATA drives in the same enclosure is not recommended.

2-3 Rear Connectors and LED Indicators

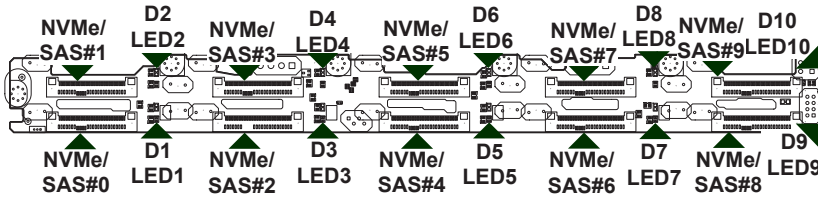

Figure 2-3. Rear Connectors and LEDs

Front Hard Drive Connectors and LED Indicators		
Drive Number	**Status LED (Red/Green)**	**HDD Activity LED (Blue)**
NVMe/SAS# 0	D1	LED1
NVMe/SAS #1	D2	LED2
NVMe/SAS #2	D3	LED3
NVMe/SAS #3	D4	LED4
NVMe/SAS #4	D5	LED5
NVMe/SAS #5	D6	LED6
NVMe/SAS #6	D7	LED7
NVMe/SAS #7	D8	LED8
NVMe/SAS #8	D9	LED9
NVMe/SAS #9	D10	LED10

Color and State	Indication
Red, solid	Failure
Red, blinking at 1Hz	Rebuild
Red, blinking at 4Hz	Locate LED
Amber, blinking at 1Hz	Attention! Do not remove NVMe device
Green, solid	NVMe device ready to be removed

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