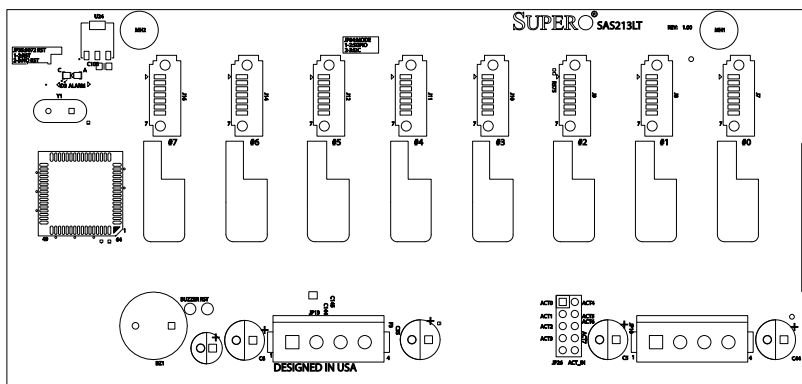


# SUPERO®



## BPN-SAS-213LT Backplane

### USER'S GUIDE

Rev. 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 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.

## 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 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 A 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-SAS-213LT Backplane**

The BPN-SAS-213LT backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-SAS-213LT board revision 1.00, the most current release available at the time of publication. Always refer to the Supermicro web site at [www.supermicro.com](http://www.supermicro.com) for the latest updates, compatible parts and supported configurations



## Chapter 2

### Connectors, Jumpers and LEDs

#### 2-1 Front Connectors

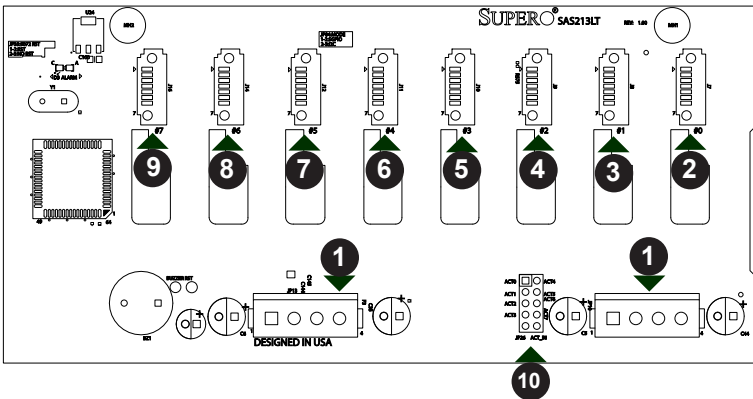


Figure 2-1. Front Connectors

#### Front Connectors

- |  |                     |
|--|---------------------|
| 1. Power Connectors (4-pin): JP10 and JP13 | 6. SAS/SATA #4: J11 |
| 2. SAS/SATA #0: J7                         | 7. SAS/SATA #5: J12 |
| 3. SAS/SATA #1: J8                         | 8. SAS/SATA #6: J14 |
| 4. SAS/SATA #2: J9                         | 9. SAS/SATA #7: J16 |
| 5. SAS/SATA #3: J10                        | 10. ACT_IN: JP26    |

## 2-2 Front Connector and Pin Definitions

### 1. Backplane Main Power Connectors

The 4-pin connectors, designated JP10, and JP13, provide power to the backplane. See the table on the right for pin definitions.

Backplane Main Power 4-Pin Connector	
Pin#	Definition
1	+12V
2 and 3	Ground
4	+5V

### 2. - 9. SAS/SATA Ports

The SAS/SATA ports are used to connect the SAS drive cables. The eight SAS IN ports are designated #0 - #7.

### 10. ACT\_IN

The activity LED connector designated JP26, is used to indicate the activity status of each SAS drive. The activity LED connector is located on the front panel. For the activity LED connector to work properly, connect using a 10-pin LED cable. This is only used when the activity LED is not supported by the hard drive.

SAS Activity LED Header Pin Definitions			
Pin#	Definition	Pin#	Definition
1	ACT IN#0	6	ACT IN#4
2	ACT IN#1	7	ACT IN#5
3	ACT IN#2	8	ACT IN#6
4	ACT IN#3	9	ACT IN#7
5	Ground	X	Empty

## 2-3 Rear Connectors and LED Indicators

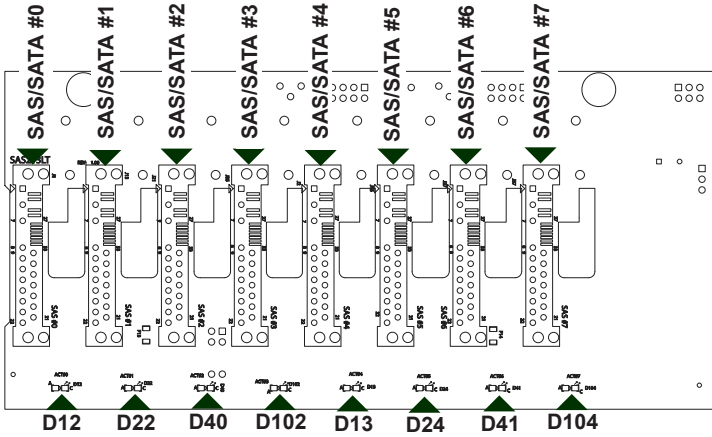


Figure 2-2. Rear LEDs

Rear SAS/SATA Connectors	
Rear Connector	Drive Number
SAS/SATA #0	SAS/SATA HDD #0
SAS/SATA #1	SAS/SATA HDD #1
SAS/SATA #2	SAS/SATA HDD #2
SAS/SATA #3	SAS/SATA HDD #3
SAS/SATA #4	SAS/SATA HDD #4
SAS/SATA #5	SAS/SATA HDD #5
SAS/SATA #6	SAS/SATA HDD #6
SAS/SATA #7	SAS/SATA HDD #7

Rear LED Indicators	
Rear LED	Hard Drive Activity (Blue LED)
SAS/SATA #0	D12
SAS/SATA #1	D22
SAS/SATA #2	D40
SAS/SATA #3	D102
SAS/SATA #4	D13
SAS/SATA #5	D24
SAS/SATA #6	D41
SAS/SATA #7	D104

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