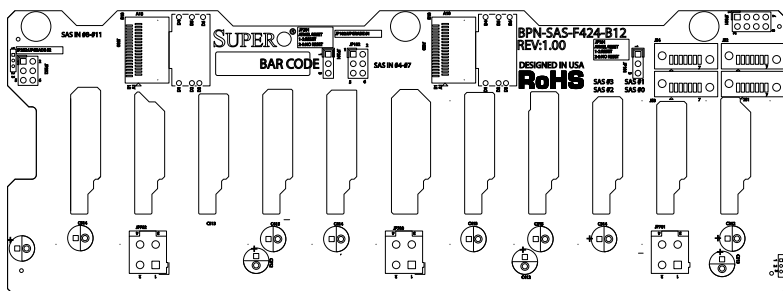


# SUPERO®



## BPN-SAS-F424-B12 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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Manual Revision 1.0  
Release Date: July 26, 2013

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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 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-SAS-F424-B12 Backplane**

The BPN-SAS-F424-B12 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-F424-B12 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

### Jumpers, Connectors and LEDs

#### 2-1 Front Connectors

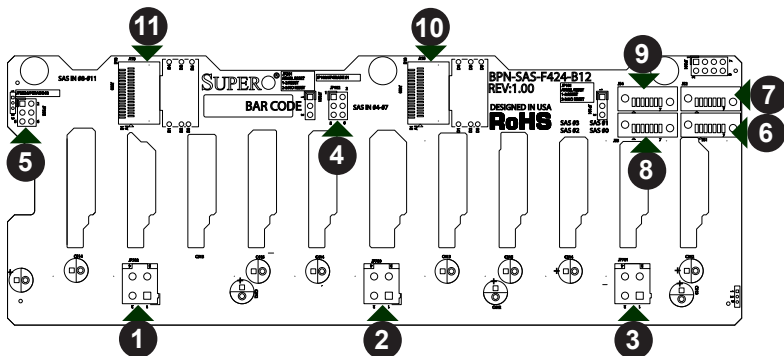


Figure 2-1: Front Connectors

- |  |                           |
|--|---------------------------|
| 1. Main Power Connector (4-pin): JP702 | 6. SAS Connector #0: JS1  |
| 2. Main Power Connector (4-pin): JP700 | 7. SAS Connector #1: JS2  |
| 3. Main Power Connector (4-pin): JP701 | 8. SAS Connector #2: JS3  |
| 4. Upgrade Connector #1: JP102         | 9. SAS Connector #3: JS4  |
| 5. Upgrade Connector #2: JP202         | 10. iPass Connector: J400 |
|  | 11. iPass Connector: J500 |

## 2-2 Front Connector Pin Definitions

### 1. - 3. Backplane Main Power Connectors

The 4-pin connectors, designated JP700, JP701 and JP702 provide power to the backplane. JP701 and JP702 must be connected to the power supply. It is optional for JP700 to be connected to the power supply. See the table on the right for pin definitions.

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

### 4. - 5. Upgrade Connector

The upgrade connectors, designated JP102 and JP202 are firmware upgrade ports.

### 6. - 9. SAS Connectors

SAS connectors #0 - #3 are used to connect the SAS/SATA cables. The four ports are designated #0 - #3 and are compatible with both SAS and SATA drives.

### 10. - 11. iPass Connectors

The iPass connectors connect to the motherboard or the controller and are designated J400 and J500.

## 2-3 Front Jumper Locations and Pin Settings

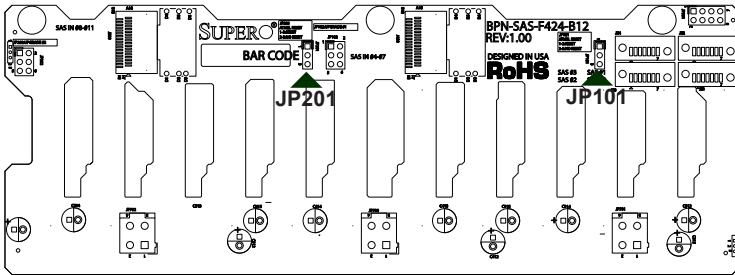
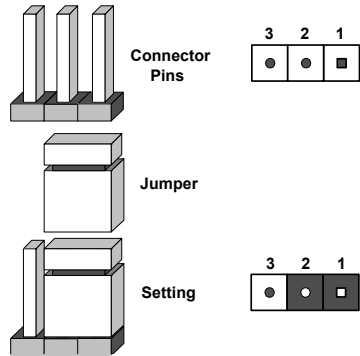


Figure 2-2: Front Jumpers

### Explanation of Jumpers

To modify the operation of the backplane, jumpers can be used to choose between optional settings. Jumpers create shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board.



Note: On 2-pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.

Jumper Settings		
Jumper	Jumper Settings	Note
JP101	Pins 1 - 2 Reset Pins 2 - 3 No reset (Default)	Chip reset, Amtel chip on the rear of the backplane.
JP201	Pins 1 - 2 Reset Pins 2 - 3 No reset (Default)	Chip reset, Amtel chip on the rear of the backplane.

## 2-4 Rear Connectors and LED Indicators

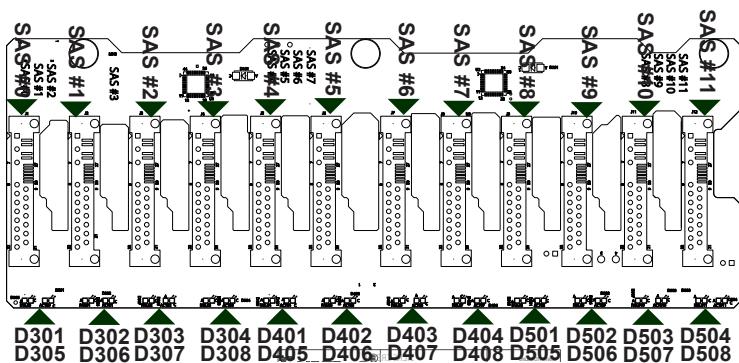


Figure 2-3: Rear Connectors and LED Indicators

Rear SAS/SATA Connectors and LED Indicators				
Ports	SAS/SATA Drive Number	Rear Connectors	Failure LED Indicator	Activity LED Indicator
SAS#0	SAS/SATA HDD #0	J1	D305	D301
SAS#1	SAS/SATA HDD #1	J2	D306	D302
SAS#2	SAS/SATA HDD #2	J3	D307	D303
SAS#3	SAS/SATA HDD #3	J4	D308	D304
SAS#4	SAS/SATA HDD #4	J5	D405	D401
SAS#5	SAS/SATA HDD #5	J6	D406	D402
SAS#6	SAS/SATA HDD #6	J7	D407	D403
SAS#7	SAS/SATA HDD #7	J8	D408	D404
SAS#8	SAS/SATA HDD #8	J9	D505	D501
SAS#9	SAS/SATA HDD #9	J10	D506	D502
SAS#10	SAS/SATA HDD #10	J11	D507	D503
SAS#11	SAS/SATA HDD #11	J12	D508	D504

## Notes

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