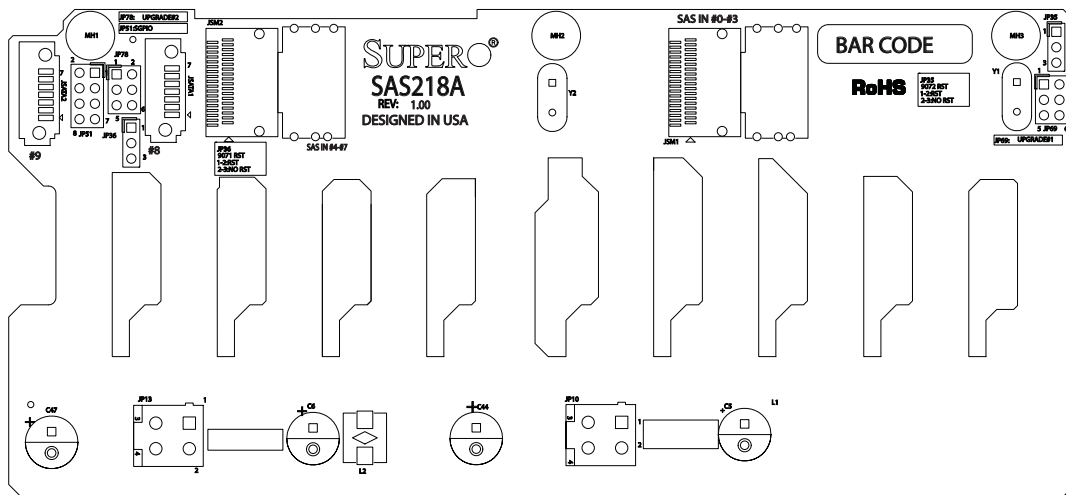


# SUPERO®



## SAS-218A BACKPLANE USER'S GUIDE

Rev. 1.0

The information in this User's Manual has been carefully reviewed and is believed to be accurate. The vendor assumes no responsibility for any inaccuracies that may be contained in this document, makes no commitment to update or to keep current the information in this manual, or to notify any person or organization of the updates. **Please Note: For the most up-to-date version of this manual, please see our web site at [www.supermicro.com](http://www.supermicro.com).**

Super Micro Computer, Inc. ("Supermicro") reserves the right to make changes to the product described in this manual at any time and without notice. This product, including software and documentation, is the property of Supermicro and/or its licensors, and is supplied only under a license. Any use or reproduction of this product is not allowed, except as expressly permitted by the terms of said license.

IN NO EVENT WILL SUPERMICRO BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, SPECULATIVE OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT OR DOCUMENTATION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN PARTICULAR, SUPERMICRO SHALL NOT HAVE LIABILITY FOR ANY HARDWARE, SOFTWARE, OR DATA STORED OR USED WITH THE PRODUCT, INCLUDING THE COSTS OF REPAIRING, REPLACING, INTEGRATING, INSTALLING OR RECOVERING SUCH HARDWARE, SOFTWARE, OR DATA.

Any disputes arising between manufacturer and customer shall be governed by the laws of Santa Clara County in the State of California, USA. The State of California, County of Santa Clara shall be the exclusive venue for the resolution of any such disputes. Super Micro's total liability for all claims will not exceed the price paid for the hardware product.

California Best Management Practices Regulations for Perchlorate Materials: This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. "Perchlorate Material-special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

---

**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.**

---

Manual Revision 1.0  
Release Date: September 6, 2011

Unless you request and receive written permission from Super Micro Computer, Inc., you may not copy any part of this document.

Information in this document is subject to change without notice. Other products and companies referred to herein are trademarks or registered trademarks of their respective companies or mark holders.

Copyright © 2011 by Super Micro Computer, Inc.  
All rights reserved.

**Printed in the United States of America**

---

# Table of Contents

Contacting Supermicro.....	iv
Returning Merchandise for Service.....	v
<b>Chapter 1 Safety Guidelines</b>	
1-1 ESD Safety Guidelines .....	1-1
1-2 General Safety Guidelines .....	1-1
1-3 An Important Note to Users .....	1-2
1-4 Introduction to the SAS-218A Backplane.....	1-2
<b>Chapter 2 Connectors, Jumpers and LEDs</b>	
2-1 Front Connectors .....	2-1
2-2 Front Connector and Pin Definitions.....	2-2
2-3 Front Jumper Locations and Pin Definitions.....	2-3
Explanation of Jumpers .....	2-3
2-4 Rear Connectors and LED Indicators .....	2-4

## Contacting Supermicro

### Headquarters

Address: Super Micro Computer, Inc.  
980 Rock Ave.  
San Jose, CA 95131 U.S.A.

Tel: +1 (408) 503-8000  
Fax: +1 (408) 503-8008  
Email: marketing@supermicro.com (General Information)  
support@supermicro.com (Technical Support)

Web Site: www.supermicro.com

### Europe

Address: Super Micro Computer B.V.  
Het Sterrenbeeld 28, 5215 ML  
's-Hertogenbosch, The Netherlands

Tel: +31 (0) 73-6400390  
Fax: +31 (0) 73-6416525  
Email: sales@supermicro.nl (General Information)  
support@supermicro.nl (Technical Support)  
rma@supermicro.nl (Customer Support)

### Asia-Pacific

Address: Super Micro Computer, Inc.  
4F, No. 232-1, Liancheng Rd.  
Chung-Ho 235, Taipei County  
Taiwan, R.O.C.

Tel: +886-(2) 8226-3990  
Fax: +886-(2) 8226-3991  
Web Site: www.supermicro.com.tw

Technical Support:  
Email: support@supermicro.com.tw  
Tel: +886-(2) 8226-5990

## 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.

## 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 SAS-218A backplane.
- Disconnect the power cable before installing or removing any cables from the backplane.
- Make sure that the SAS-218A backplane is securely and properly connected to the motherboard prevent damage to the system due to a power shortage.

## **1-3 An Important Note to Users**

All images and layouts shown in this user's guide are based upon the latest backplane 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 SAS-218A Backplane**

The SAS-218A backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects SAS-218A 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

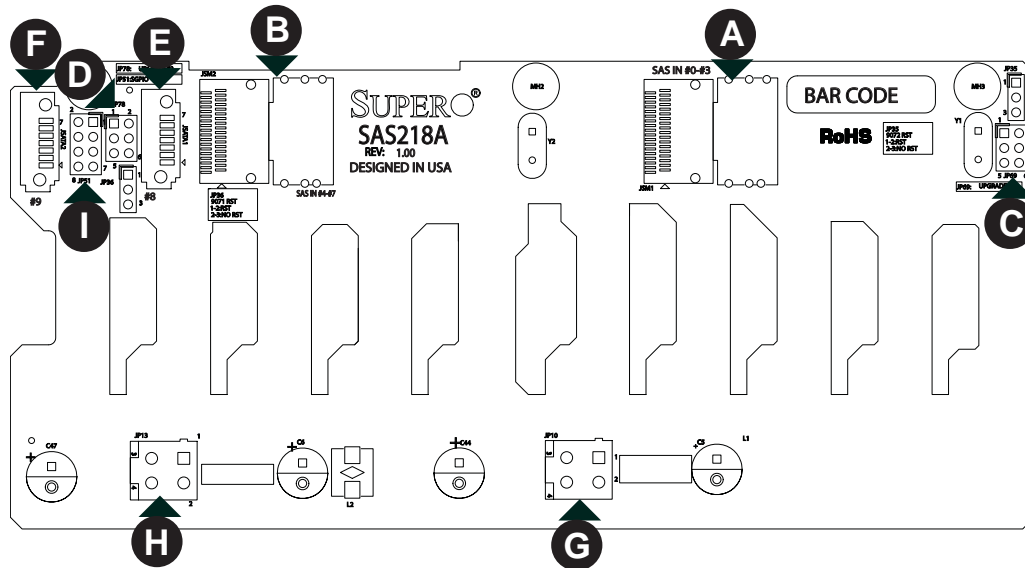


Figure 2-1: Front Connectors

#### *Front Connectors*

- |                              |  |
|------------------------------|--|
| A. SAS connector 0 - 3: JSM1 | F. SATA connector #9: JSATA2                             |
| B. SAS connector 4 - 7: JSM2 | G. Power connector: JP10                                 |
| C. Upgrade #1: JP69          | H. Power connector: JP13                                 |
| D. Upgrade #2: JP78          | I. SGPIO Connector (for SATA connectors #8 and #9): JP51 |
| E. SATA connector #8: JSATA1 |  |



## **2-2 Front Connector and Pin Definitions**

### **A. - B. SAS Connectors**

The SAS connectors are numbered 0 - 3 and 4-7. Each may be connected to the system with a SAS cable.

### **C. - D. Upgrade Connector**

The upgrade connectors, designated JP69 and JP78 are for diagnostic purposes only. This connector should only be used by a certified and experienced technician.

### **E. - F. SATA Connectors**

The SATA connectors are numbered #8 and #9. Each may be connected to the system with a SATA cable.

### **G. - H. Power Connectors**

The power connectors are designated JP10 and JP13. These connectors provide power to the backplane.

### **I. SGPIO Connector**

The SGPIO connector is used by the two SATA connectors (#8 and #9) and is designated JP51.

## 2-3 Front Jumper Locations and Pin Definitions

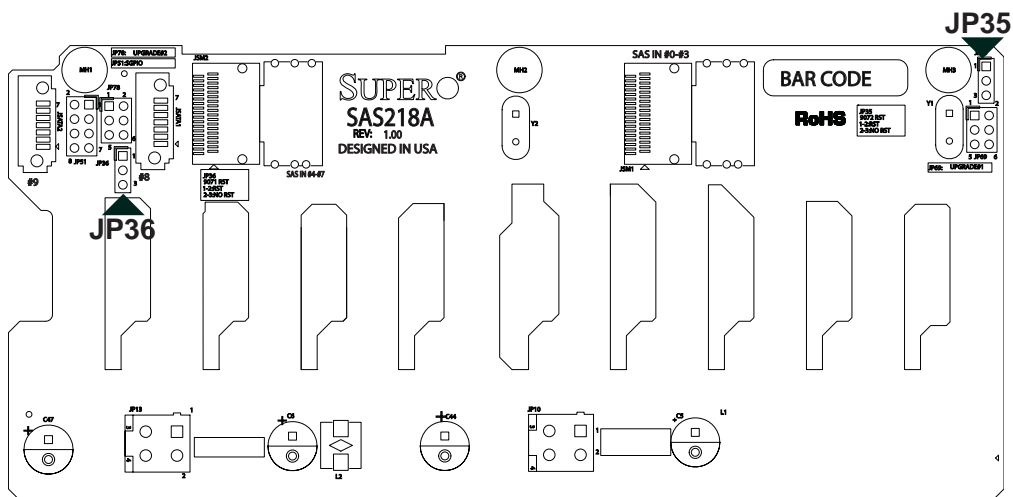
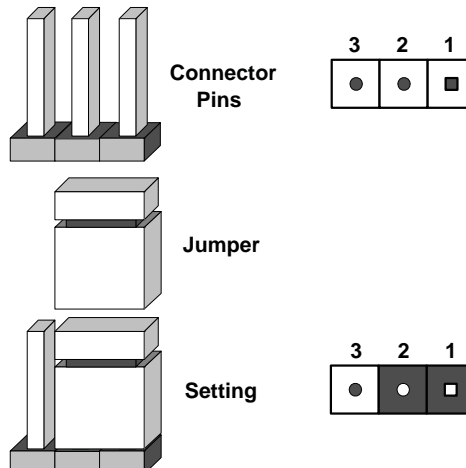


Figure 2-2: Front Jumpers

### 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 two pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.



Jumper Settings		
Jumper	Jumper Settings	Note
JP35	1-2: Reset 2-3: No reset	MG9072 chip reset
JP36	1-2: Reset 2-3: No reset	MG9071 chip reset

## 2-4 Rear Connectors and LED Indicators

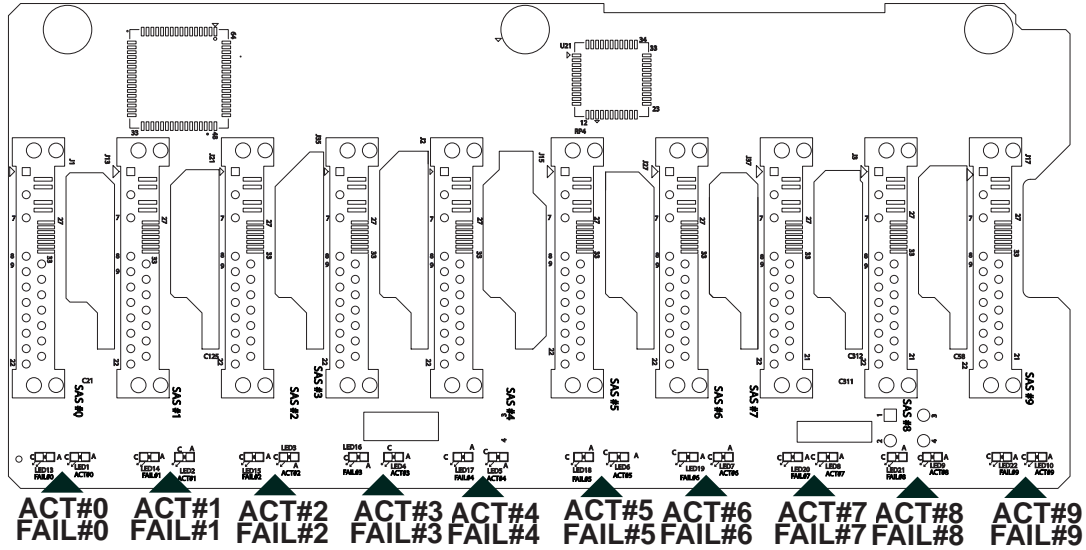


Figure 2-3: Rear Connectors and LEDs

Rear SAS/SATA Connectors and LEDs				
Rear Connector	Connector Number	SAS/SATA Drive Number	HDD Activity LED	Failure LED
SAS #0	J1	SAS/SATA HDD #0	LED13	LED1
SAS #1	J13	SAS/SATA HDD #1	LED14	LED2
SAS #2	J21	SAS/SATA HDD #2	LED15	LED3
SAS #3	J35	SAS/SATA HDD #3	LED16	LED4
SAS #4	J2	SAS/SATA HDD #4	LED17	LED5
SAS #5	J15	SAS/SATA HDD #5	LED18	LED6
SAS #6	J27	SAS/SATA HDD #6	LED19	LED7
SAS #7	J37	SAS/SATA HDD #7	LED20	LED8
SAS #8	J3	SAS/SATA HDD #8	LED21	LED9
SAS #9	J17	SAS/SATA HDD #9	LED22	LED10

## Notes

Disclaimer (cont.)

The products sold by Supermicro are not intended for and will not be used in life support systems, medical equipment, nuclear facilities or systems, aircraft, aircraft devices, aircraft/emergency communication devices or other critical systems whose failure to perform be reasonably expected to result in significant injury or loss of life or catastrophic property damage. Accordingly, Supermicro disclaims any and all liability, and should buyer use or sell such products for use in such ultra-hazardous applications, it does so entirely at its own risk. Furthermore, buyer agrees to fully indemnify, defend and hold Supermicro harmless for and against any and all claims, demands, actions, litigation, and proceedings of any kind arising out of or related to such ultra-hazardous use or sale.