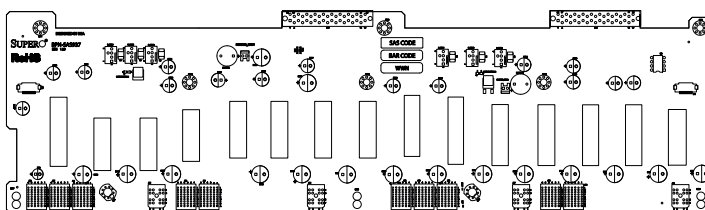


SUPERO®



SAS-937 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

SAS-937 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 backplane 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-937 backplane.
- Disconnect the power cable before installing or removing any cables from the SAS-937 backplane.
- Make sure that the SAS-937 backplane is securely and properly installed on the motherboard to 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 PCB revision available at the time of publishing. The backplane you have received may or may not look exactly the same as the graphics shown in this manual.

1-4 Introduction to the SAS-937 Backplane

The SAS-937 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-937 Revision 1.00, the most current release available at the time of publication. Always refer to the Supermicro Web site at www.supermicro.com for the latest updates, compatible parts and supported configurations.

Chapter 2

Connectors, Jumpers and LEDs

2-1 Front Connectors

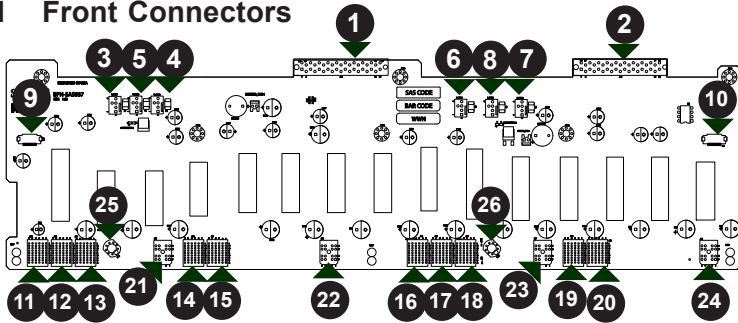


Figure 2-1: Front Connectors

Front Connectors

- | | |
|--------------------------------------|------------------------------|
| 1. Primary Power Connector: J23 | 14. SBB Connector: J19 |
| 2. Secondary Power Connector: J24 | 15. SBB Connector: J21 |
| 3. Primary Fan1 Connector: P_FAN1 | 16. SBB Connector: J30 |
| 4. Primary Fan2 Connector: P_FAN2 | 17. SBB Connector: J18 |
| 5. Primary Fan3 Connector: P_FAN3 | 18. SBB Connector: J32 |
| 6. Secondary Fan1 Connector: S_FAN1 | 19. SBB Connector: J20 |
| 7. Secondary Fan 2 Connector: S_FAN2 | 20. SBB Connector: J22 |
| 8. Secondary Fan 3 Connector: S_FAN3 | 21. SBB Connector: J25 |
| 9. Front Panel Connector: JP2 | 22. SBB Connector: J26 |
| 10. Front Panel Connector: JP1 | 23. SBB Connector: J27 |
| 11. SBB Connector: J29 | 24. SBB Connector: J28 |
| 12. SBB Connector: J17 | 25. Primary Guide Pin: GP1 |
| 13. SBB Connector: J31 | 26. Secondary Guide Pin: GP2 |

1. - 2. Power Connectors

These connectors, designated J23 and J24 supply power the two motherboard nodes in the chassis.

3. - 8. Chassis Fan Connectors

These connectors, designated P_FAN1, P_FAN2, P_FAN3, S_FAN1, S_FAN2, and S_FAN3 supply power to the chassis cooling fans.

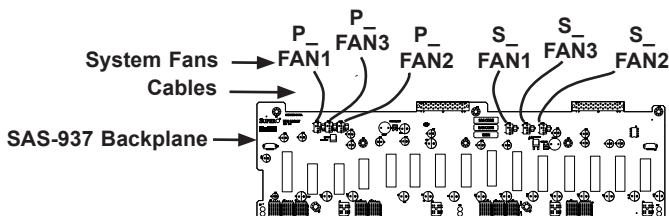


Figure 2-2: Default Configuration - Fans Connected Directly to the Backplane

9. - 10. Front Panel Connectors

These connectors are designated JP1 and JP2. They connect the backplane to the front LED panels on the chassis. JP2 connects to the LED display panel for motherboard B. JP1 connects to the LED display panel for motherboard A.

11. - 24. SBB Connectors

The SBB connectors connect the motherboards to the backplane in the chassis and are designated as follows:

MB_A: J29, J17, JP31, J25, J19, J21, J26, and GP1.

MB_B: J30, J18, J32, J27, J20, J22, J28, GP2

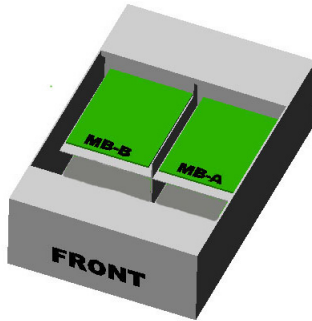


Figure 2-3: Motherboard Locations In the Chassis

2-2 Front LED Indicators

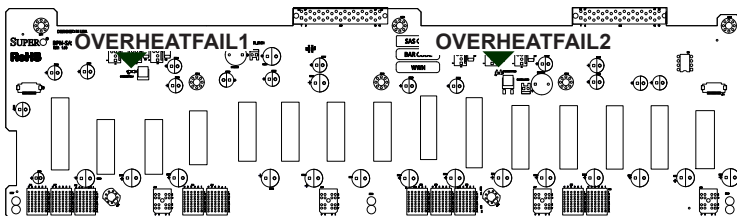


Figure 2-4: Front LEDs

Front Panel LED		
LED	State	Specification
OVERHEATFAIL1	Solid on	Indicates an overheat condition on the right side of the SAS-937 backplane, which supports MB-A.
OVERHEATFAIL2	Solid on	Indicates an overheat condition on the left side of the SAS-937 backplane, which supports MB-B

2-3 Rear Connectors and LED Indicators

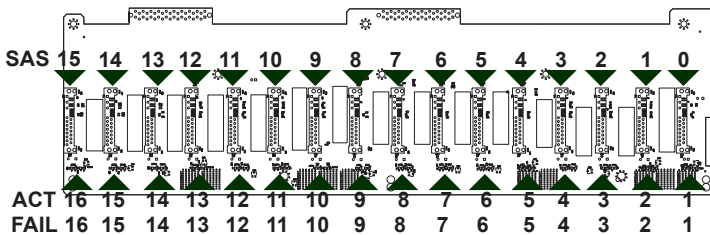


Figure 2-5: Rear Connectors and LEDs

Rear SAS Connectors					
Rear Connector	SAS Drive Number	Reference	Rear Connector	SAS Drive Number	Reference
SAS #0	HDD 0	J1	SAS #8	HDD 8	J9
SAS #1	HDD 1	J2	SAS #9	HDD 9	J10
SAS #2	HDD 2	J3	SAS #10	HDD 10	J11
SAS #3	HDD 3	J4	SAS #11	HDD 11	J12
SAS #4	HDD 4	J5	SAS #12	HDD 12	J13
SAS #5	HDD 5	J6	SAS #13	HDD 13	J14
SAS #6	HDD 5	J7	SAS #14	HDD 14	J15
SAS #7	HDD 7	J8	SAS #15	HDD 15	J16

Rear LED Indicators		
Rear LED	Activity	Failure
SAS #15	ACT16	FAIL16
SAS #14	ACT15	FAIL15
SAS #13	ACT14	FAIL14
SAS #12	ACT13	FAIL13
SAS #11	ACT12	FAIL12
SAS #10	ACT11	FAIL11
SAS #9	ACT10	FAIL10
SAS #8	ACT9	FAIL9
SAS #7	ACT8	FAIL8
SAS #6	ACT7	FAIL7
SAS #5	ACT6	FAIL6
SAS #4	ACT5	FAIL5
SAS #3	ACT4	FAIL4
SAS #2	ACT3	FAIL3
SAS #1	ACT2	FAIL2
SAS #0	ACT1	FAIL1

2-4 SAS Ports

The SAS-937 backplane is designed with two separate sections, which support from one to two motherboards independently of each other. The SAS ports are used to connect the SAS drive cables.

SAS Port to Motherboard Configurations	
Number of Motherboards	SAS Port Connectors
Using 1 MB	J1 to J16
Using 2 MBs	J1 to J16 (Dual port)

Disclaimer (cont.)

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