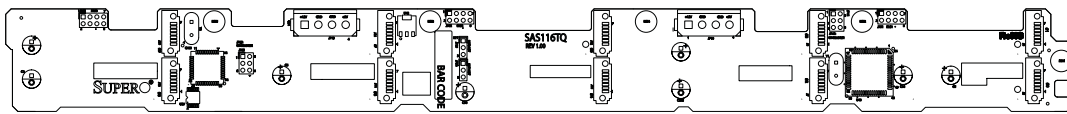


SUPERO®



SAS-116TQ

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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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: 886-2-8226-1900

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-116TQ backplane.
- Disconnect the power cable before installing or removing any cables from the backplane.
- Make sure that the SAS-116TQ 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 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-116TQ Backplane

The SAS-116TQ 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-116TQ 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

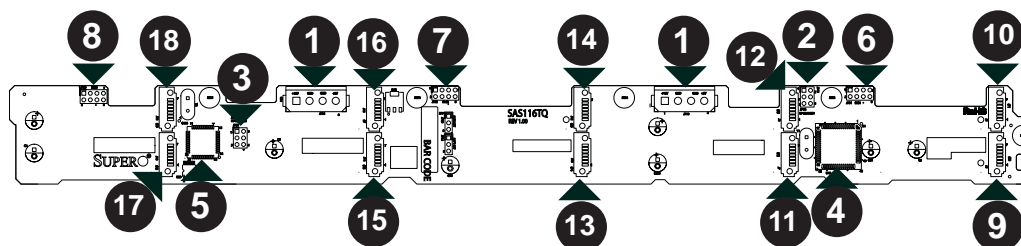


Figure 2-1: Front Connectors

Front Connectors

- | | |
|---|-----------------------|
| 1. Power Connectors (4-pin): JP10, JP13 | 10. Connector #1: J6 |
| 2. Upgrade #1: JP46 | 11. Connector #2: J7 |
| 3. Upgrade #2: JP55 | 12. Connector #3: J8 |
| 4. MG9072 Chip | 13. Connector #4: J10 |
| 5. MG9071 Chip | 14. Connector #5: J12 |
| 6. Sideband #1: JP51 | 15. Connector #6: J14 |
| 7. Sideband #2: JP52 | 16. Connector #7: J16 |
| 8. Sideband #3: JP53 | 17. Connector #8: J18 |
| 9. Connector #0: J5 | 18. Connector #9: J20 |

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 Connectors	
Pin#	Definition
1	+12V
2 and 3	Ground
4	+5V

#2. - #3. Upgrade Connector

The upgrade connectors, designated JP46 and JP55 are for diagnostic purposes only. This connector should only be used by a certified and experienced technician.

#4.. - #5. MG9071 and MG9072 Chips

The MG9071 and MG9072 chips are enclosure management chips that support the SGPIO controller and SGPIO protocols.

#6. - #8. Sideband Headers

The sideband headers are designated JP51, JP52 and JP53. For SGPIO to work properly, you must connect an 8-pin sideband cable. See the table to the right for pin definitions.

Sideband Headers			
Pin #	Definition	Pin #	Definition
2	SDIN/ (SB5)	1	Controller ID (SB6)
4	SDOUT (SB4)	3	GND (SB2)
6	GND (SB3)	5	SLOAD/ (SB1)
8	Backplane ID (SB7)	7	SCLOCK/ (SB0)

#9. - #18. SAS/SATA Connectors

The SAS/SATA connectors are numbered 0 through 9. Each may be connected to the system with a SAS or SATA cable.

2-3 Front Jumper Locations and Pin Definitions

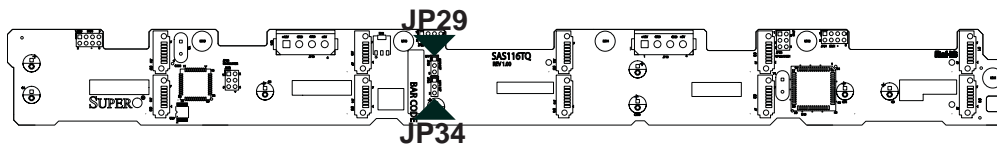
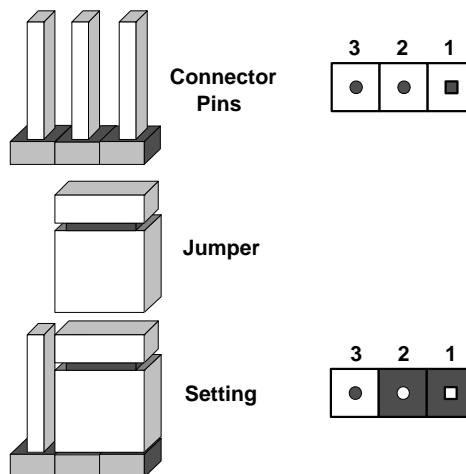


Figure 2-2: Front Jumpers

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
JP29	2-3: Default 1-2: Reset	MG9072 chip reset
JP34	2-3: Default 1-2: Reset	MG9071 chip reset

2-4 Rear Connectors and LED Indicators

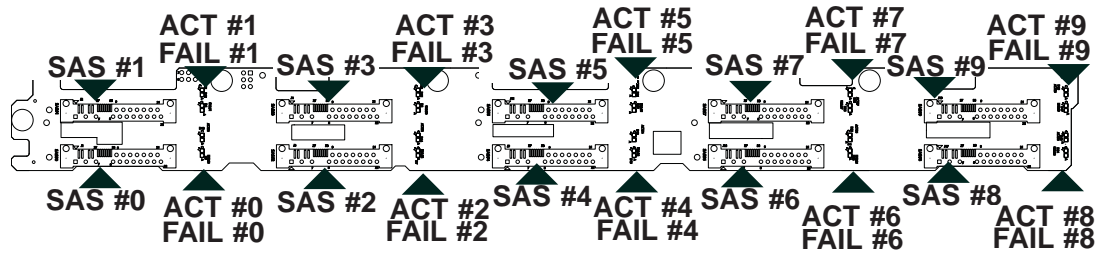


Figure 2-4: Rear Connectors and LEDs

Rear SAS/SATA Connectors and LEDs				
Rear Connector	Connector Number	SAS/SATA Drive Number	Hard Drive Activity	Failure LED
SAS #0	J1	SAS/SATA HDD #0	D12	D5
SAS #1	J2	SAS/SATA HDD #1	D13	D6
SAS #2	J3	SAS/SATA HDD #2	D14	D7
SAS #3	J4	SAS/SATA HDD #3	D15	D8
SAS #4	J9	SAS/SATA HDD #4	D18	D19
SAS #5	J11	SAS/SATA HDD #5	D21	D20
SAS #6	J13	SAS/SATA HDD #6	D22	D23
SAS #7	J15	SAS/SATA HDD #7	D25	D26
SAS #8	J17	SAS/SATA HDD #8	D48	D24
SAS #9	J19	SAS/SATA HDD #9	D49	D47

Notes

Disclaimer (cont.)

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