SUPER®

CSE-SCA-833S2 Backplane

USER'S GUIDE

Rev. 1.0b

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Table of Contents

1. Safety Guidelines

To avoid personal injury and property damage, please carefully follow all the safety steps listed below when accessing your system or handling the components:

ESD Safety Guidelines

Electric Static 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.

General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the SCA 833S2 Backplane.
- Disconnect the power cable before installing or removing any cable from the SCA 833S2 Backplane.
- Make sure that the SCA 833S2 Backplane is securely and properly installed on the motherboard to prevent damage to the system due to power shortage.

An Important Note to the User

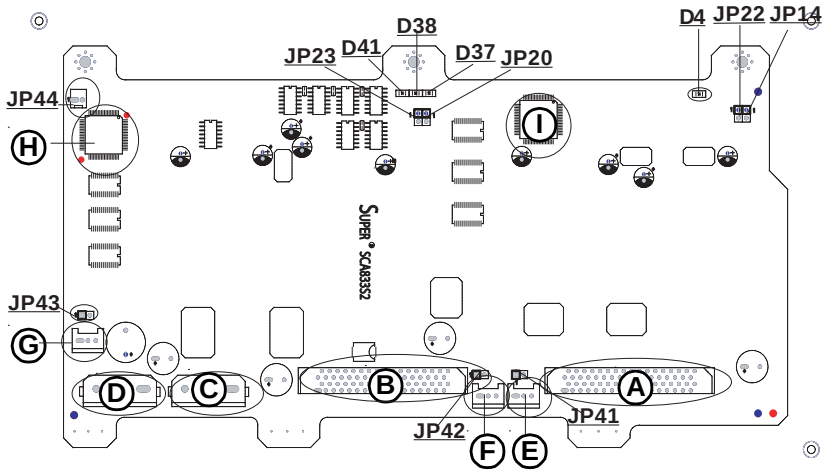
- All images and layouts shown in this user's guide are based upon the PCB Rev. 1.00, which is the latest version available at the time of publishing. The card you've received may or may not look exactly the same as the images or the layouts shown in this manual.

2. Technical Specifications

2A. Front Jumpers, Connectors and LED Indicators

Front Jumper/Connector/LED Locations

Front View



(*See below for the front connector/LED descriptions.)

A: SCA Channel A In (LVD1)
B: SCA Channel B In (LVD2)

C/D: Backplane Power Connectors (JP10/JP15)

You must use both 4-pin power connectors, marked "C" and "D" on the layout above, to provide adequate power supply to the backplane. See the table on the right for pin definitions.

Channel A/B PWR 4-pin Connectors

Pins #	Definition
1	+12V
2 & 3	Ground
4	+5V

(***Note**: To provide adequate power supply to the backplane, both power connectors are required.)

E: Fan1 (JP33)
F: Fan2 (JP34)
G: Fan3 (JP35)

3-pin Fan Header Pin Definitions

The SCA833S2 has three fan headers. Designations include Fan1(JP33), Fan2 (JP34), and Fan3 (JP35). See the table on the right for pin definitions.

Fan Header Pin Definitions

Pin Number	Definition
1	Ground (black)
2	+12V (red)
3	Tachometer

Caution: These fan headers are DC power.

H/I: GEM 318 (SAF-TE: SCSI Accessed Fault-Tolerant Enclosures)

These chips allow the system to use a set of pre-defined SCSI commands to monitor the status of disk drives and provide disk drive information to the user through LED indicators and buzzers. (*Note: This function is available only when a RAID controller with a RAID set is present and enabled. Please refer to Page 1-8 for more information on SAF-TE LED Indicators.)

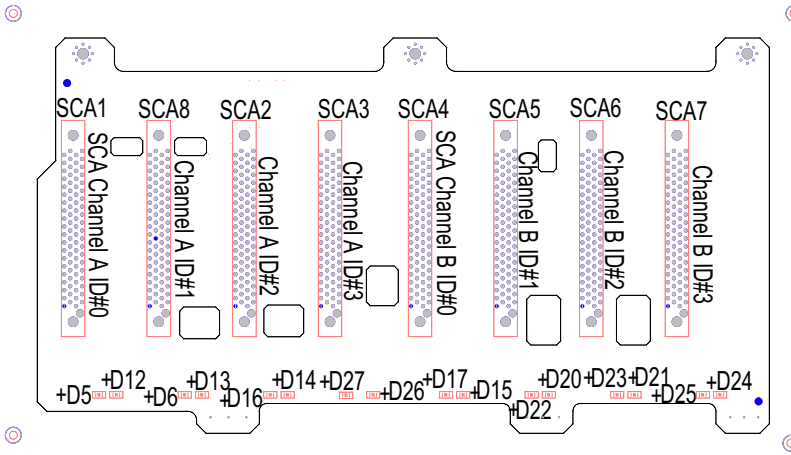
Front Jumper Descriptions and Pin Descriptions

Jumper	Setting	Description
JP14	Open	Channel A Delay Start
JP22	Open	Channel A Remote Start
JP20	Open	Channel B Delay Start
JP23	Open	Channel B Remote Start
JP41	Closed (Default)	Fan #1(using Onboard fan) Enable
	Open	Fan #1 Disable
JP42	Closed (Default)	Fan #2(using Onboard fan) Enable
	Open	Fan #2 Disable
JP43	Closed (Default)	Fan #3(using Onboard fan) Enable
	Open	Fan #3 Disable
JP44	Open	Buzzer Reset
(*Note: Press the button on the front panel once to disable the buzzer. If the buzzer has been disabled, please be sure to press the button once again to re-enable the buzzer.)		

(***Note**: refer to the layout on the previous page for the LED and Jumper Locations, Please refer to Page 1-8 for LED information.)

2B. Rear Connectors and LED Locations

Rear Connector/LED Indicator Locations



Rear View

(*See below for the rear connector description. Please also refer to the next page for LED information.)

Connector Descriptions

Location	Description
SCA1	SCA Channel A ID#0
SCA8	SCA Channel A ID#1
SCA2	SCA Channel A ID#2
SCA3	SCA Channel A ID#3
SCA4	SCA Channel B ID#0
SCA5	SCA Channel B ID#1
SCA6	SCA Channel B ID#2
SCA7	SCA Channel B ID#3

3. LED Indicators

Front LED Indicators

LED	Activity	Description
D4	LED: Red light flashing, Buzzer: On	Overheat or Drive Fail
D37	LED: Red light On, Buzzer: On	Fan1 Fail
D39	LED: Red light On, Buzzer: On	Fan2 Fail
D41	LED: Red light On, Buzzer: On	Fan3 Fail

Rear LED Indicators

(Note: For all Drive Failure LEDs: Red light:On, indicating Drive Failure, Red light: flashing, indicating RAID Rebuilding.)

LED	Description	
D5	SCA#1 Fail LED	See Note above
D12	SCA#1 Activity LED	
D6	SCA#2 Fail LED	See Note above
D13	SCA#2 Activity LED	
D16	SCA#3 Fail LED	See Note above
D14	SCA#3 Activity LED	
D27	SCA#4 Fail LED	See Note above
D26	SCA#4 Activity LED	
D17	SCA#5 Fail LED	See Note above
D15	SCA#5 Activity LED	
D22	SCA#6 Fail LED	See Note above
D20	SCA#6 Activity LED	
D23	SCA#7 Fail LED	See Note above
D21	SCA#7 Activity LED	
D25	SCA#8 Fail LED	See Note above
D24	SCA#8 Activity LED	

SAF-TE LED Indicators

LED#	Location	Description
D4	Front	Overheat or Drive Failure (red light flashing, buzzer: on)
D5	Rear	SCA#1 Fail LED (*See Note above)
D6	Rear	SCA#2 Fail LED (*See Note above)
D16	Rear	SCA#3 Fail LED (*See Note above)
D27	Rear	SCA#4 Fail LED (*See Note above)
D17	Rear	SCA#5 Fail LED (*See Note above)
D22	Rear	SCA#6 Fail LED (*See Note above)
D23	Rear	SCA#7 Fail LED (*See Note above)
D25	Rear	SCA#8 Fail LED (*See Note above)

(***Note**: refer to the layouts Pages 1-5, 1-7 for the LED and Jumper Locations.)

4. SCSI (Super) GEM Driver Installation Instructions for the Windows Operating System

Please refer to the following instructions to install the SCSI GEM Driver for the Windows OS systems.

(*Note: This driver is not necessary for other Operating Systems. If you have two SCA backplanes, you will need to install the driver twice.)

The driver is located on the Super Micro motherboard driver CD or is available for download from our FTP site: ftp://ftp.supermicro.com/driver/Qlogic/

Follow the procedure below to install this driver to your system.

Installing the driver:

1) Right click on “My Computer” and choose “Property”.
2) Select “Hardware” tab and click on “Device Manager”.
3) Open “Other Devices” or wherever “GEM318” is on.
4) Right click on this device and choose “Property”.
5) Click on “Driver” tab and choose “Update Driver”.
6) Click “Next” 2 times, uncheck both “Floppy disk drives” and “CD-ROM drives”. Then, select the item- “Specify a location,” and choose “Next”.
7) Click on “Browse” and choose D drive or wherever Supermicro Setup CD is in.
8) Choose “Qlogic” folder and click on “Open”.
9) System will automatically detect GEM318 and install the drive from this point on.

or,

1) Right click the "My Computer" icon on your desktop and choose Properties.
2) Click on the Hardware tab and click on "Device Manager" to bring up the list of system devices.
3) You may see one or two yellow question marks (?) that read QLogic GEM354 or GEM318 SCSI Processor Device. Right click on these, and choose to uninstall. If two such question marks are present, uninstall both.
4) Click on Action tab and choose "Scan for Hardware Changes". The Hardware Wizard program should start up. Click "Next".
5) At the first prompt, choose “Display a list of known device drivers for the device so that I can choose a specific driver” and click "Next".
6) Choose “Other Devices” and click Next.
7) Choose “Have Disk”, and specify your floppy drive location in the options box. Then, click "Next".
8) Highlight “Enclosure Services Device” and click "Next".
9) Ignore the warning prompt by clicking "Yes".

Notes