



AOC-S3008L-L8e AOC-S3008L-L8e+



User's Guide

Revision 1.0b

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Preface

About this User's Guide

This user's guide is written for system integrators, IT professionals, and knowledgeable end users. It provides information for the installation and use of the AOC-S3008L-L8e/AOC-S3008L-L8e+ add-on card.

An Important Note to the User

All images and layouts shown in this user's guide are based upon the latest PCB revision available at the time of publishing of this user's guide. The add-on card you have received may or may not look exactly the same as the graphics shown in this user's guide.

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/>).

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.

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Conventions Used in the User's Guide

Pay special attention to the following symbols for proper system installation:

Warning: Important information given to ensure proper system installation and to avoid possible damage done to the components or injury to yourself.

Note: Additional information given for proper system setup.

Important Links

For your system to work properly, please follow the links below to download all necessary drivers/utilities and the user's manual for your server.

- Supermicro product manuals: <http://www.supermicro.com/support/manuals/>
- Product drivers and utilities: <https://www.supermicro.com/wftp/driver>
- Product safety info: http://www.supermicro.com/about/policies/safety_information.cfm
- If you have any questions, please contact our support team at: support@supermicro.com

This manual may be periodically updated without notice. Please check the Supermicro website for possible updates to the manual revision level.

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)

Web Site: www.supermicro.nl

Asia-Pacific

Address: Super Micro Computer, Inc.
3F, No. 150, Jian 1st Rd.
Zhonghe Dist., New Taipei City 235
Taiwan (R.O.C)

Tel: +886-(2) 8226-3990

Fax: +886-(2) 8226-3992

Email: support@supermicro.com.tw

Web Site: www.supermicro.com.tw

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Chapter 1

Introduction

1-1 Overview

Congratulations on purchasing your add-on card from an acknowledged leader in the industry. Supermicro products are designed with the utmost attention to detail to provide you with the highest standards in quality and performance.

1-2 About this Add-on Card (Used for IT mode support)

The Supermicro AOC-S3008L-L8e/AOC-S3008L-L8e+ is the most cost-effective and compact internal SAS Host Bus Adapter (HBA) in today's market. With the Avago 3008 SAS controller, eight 12Gb/s SAS connectors, and a low-profile PCI-E Gen 3 x8 slot built in, this add-on card offers high-performance connectivity with enormous storage capacity to meet the growing needs of high-end server platforms.

The AOC-S3008L-L8e/AOC-S3008L-L8e+ supports the Avago SAS 3008 controller, offering PCI-Express host interface with increased I/O bandwidth, delivering an intelligent I/O expansion solution to the market. For more information regarding product support or updates, please refer to our website at <http://www.supermicro.com/products/accessories/addon/AOC-S3008L-L8e.cfm>.

1-3 Key Features

The key features of the AOC-S3008L-L8e and the AOC-S3008L-L8e+ include the following:

- Avago SAS 3008 8-port PCI-E SAS-3.0 controller
- Eight internal SAS3 ports with two mini SAS HD connectors
- Onboard hardware I/O processor at 1.2 GHz
- Supports up to 122 devices - HBA (Host Bus Adapter)
- Low profile Gen 3 PCI-E x8
- Capable of auto-negotiating PCI-E (1.x, 2.x, and 3.x) link widths
- Enlarged venting hole mounting bracket for improved air flow

- Power management support at 18 watts
- Port-independent auto-negotiation
- Supports SSP, SMP, STP and SATA protocols
- Supports 3.0, 6.0 and 12.0 Gb/s SAS and 1.5, 3.0, and 6.0 Gb SATA data transfer rates
- OS support: Windows (8, 8.1, 10, Server 2012, and Server 2016), VMware, RedHat and SUSE Linux
- Operation temperatures: 0°C to 55°C (32°F to 131°F)
- Dimensions 2.71" (H) x 6.6" (L) (68.83cm (H) x 167.64cm (L))

In addition to the key features listed above, the AOC-S3008L-L8e+ supports:

- IPMI software detection
- Add-on card health monitoring and statistics

1-4 Supermicro Motherboard Support

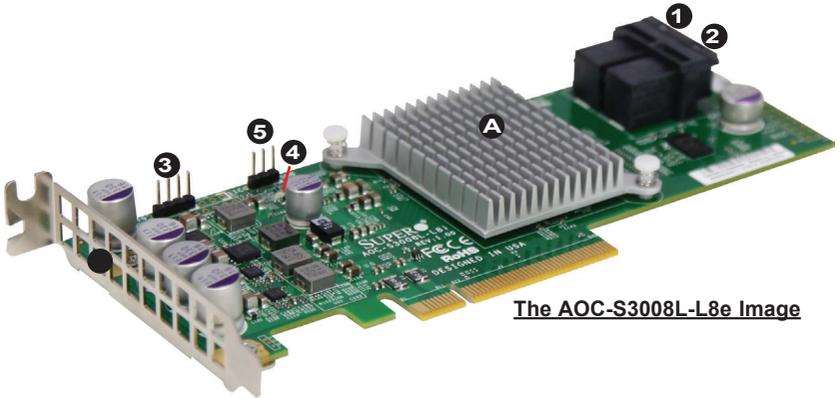
The AOC-S3008L-L8e/AOC-S3008L-L8e+ is plug-and-play compatible with all X9, X10 and X11 motherboards with a standard PCI-E x8 slot.

On systems that support IPMI software detection of multiple add-on cards, each add-on card's PCI-E slot must have an I²C multiplexer chip. Check the motherboard manual for each PCI-E slot. Install the AOC-S3008L-L8e+ in a PCI-E slot with a multiplexer chip for correct software detection.

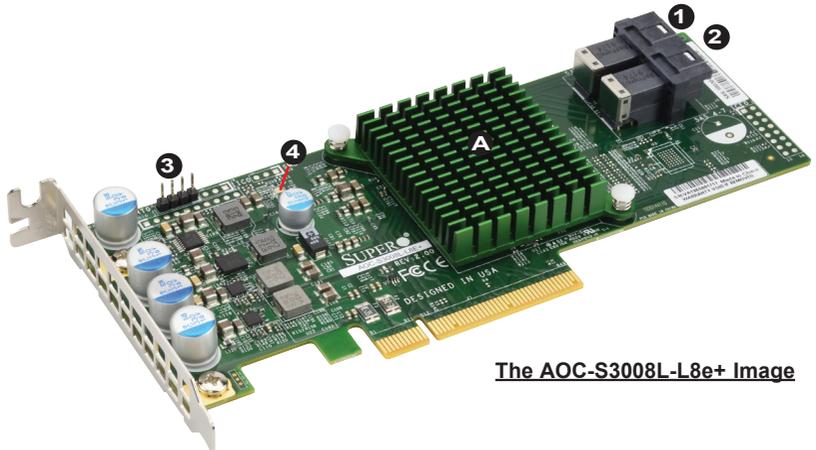
Chapter 2

Hardware Components

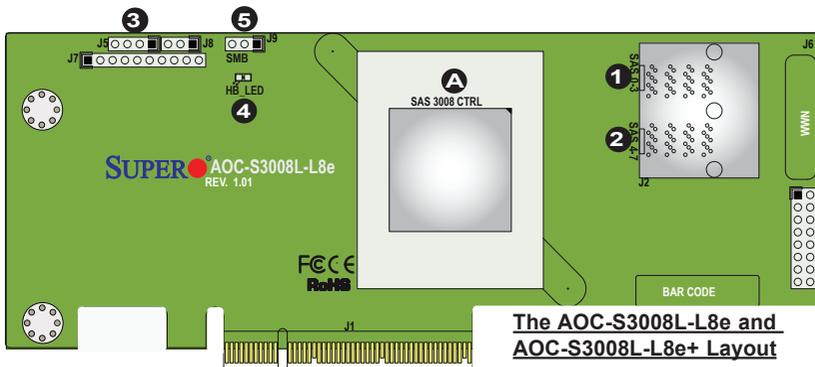
2-1 Add-On Card Image and Layout



The AOC-S3008L-L8e Image



The AOC-S3008L-L8e+ Image



2-2 Major Onboard Components

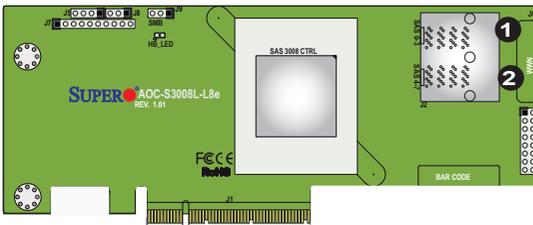
The following major components are installed on the AOC-S3008L-L8e and the AOC-S3008L-L8e+:

Major Components	
Number	Component Name
A	3008 SAS CTRL
1	SAS ports 0~3
2	SAS ports 4~7
3	J5: UART0
4	System Heartbeat LED
5	J9: System Management Bus (SMB) (Available on AOC-S3008L-L8e only)

2-3 SAS 3.0 Ports

SAS Ports

Eight SAS ports, supported by the Avago 3008 SAS controller, are located on the add-on card. SAS 0-3 and SAS 4-7 support SAS 3.0 connections.



1. SAS Ports 0~3
2. SAS Ports 4~7

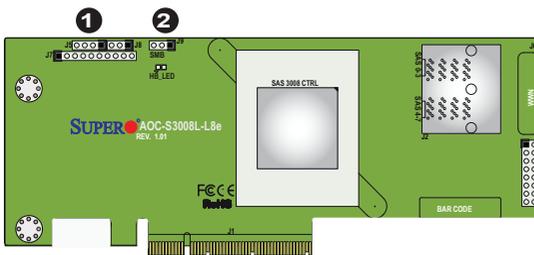
2-4 Connectors & Headers

UART0 Header

The universal asynchronous receiver/transmitter (UART) header is located on J5 on the AOC-S3008L-L8e/AOC-S3008L-L8e+. Do not install any jumper or cable on this header which is reserved for engineering test purposes.

System Management Bus (SMB) Header

The SMB header (J9) is used for engineering test purposes.



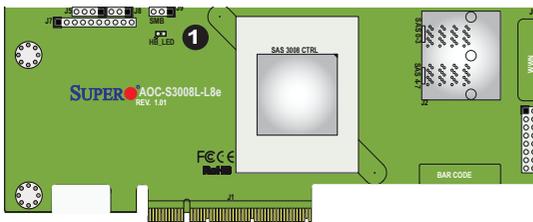
1. UART0 Header
2. SMB Header

2-5 LED Indicators

System Heartbeat LED

The System Heartbeat LED is located below the SMB header on the add-on card. When this LED is blinking, the system is functioning normally. See the table below for more information.

System Heartbeat LED Status	
Color/State	Definition
Green: Blinking	System: Normal
Red	System: Disabled or Failed



1. System Heartbeat LED

Chapter 3

Installation

Note: Your system came with the AOC-S3008L-L8e/AOC-S3008L-L8e+ add-on card pre-installed as a part of an integrated solution. We do not recommend that any part of your system components be removed and re-installed. However, if you do need to remove or re-install a system component, including this add-on card, please follow the instructions below to ensure proper system setup. Also, be sure to remove the power cord first before adding, removing or changing any hardware components to avoid damaging the system or components.

3-1 Static-Sensitive Devices

Electrostatic Discharge (ESD) can damage electronic components. To avoid damaging your add-on card, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.

Precautions

- Use a grounded wrist strap designed to prevent static discharge.
- Touch a grounded metal object before removing the add-on card from the antistatic bag.
- Handle the add-on card by its edges only; do not touch its components, or peripheral chips.
- Put the add-on card back into the antistatic bags when not in use.
- For grounding purposes, make sure that your system chassis provides excellent conductivity between the power supply, the case, the mounting fasteners and the add-on card.

Note: Your system came with the AOC-S3008L-L8e/AOC-S3008L-L8e+ add-on card pre-installed as a part of an integrated solution. We do not recommend that any part of your system components be removed and re-installed. However, if you do need to remove or re-install a system component, including this add-on card, please follow the instructions below to ensure proper system setup.

3-2 Before Installation

To install the add-on card properly, be sure to follow the instructions below.

1. Power down the system.
2. Remove the power cord from the wall socket.
3. Use industry-standard anti-static equipment (such as gloves or wrist strap) and follow the instructions listed on Page 3-1 to avoid damage caused by ESD.
4. Familiarize yourself with the server, motherboard, and/or chassis documentation.
5. Confirm that your operating system includes the latest updates and hotfixes.

3-3 Installing the Add-on Card

Follow the steps below to install the add-on card into your system.

1. Remove the server cover and, if necessary, set aside any screws for later use.
2. Remove the add-on card slot cover. If the case requires a screw, place the screw aside for later use.
3. Position the add-on card in the slot directly over the connector, and gently push down on both sides of the card until it slides into the PCI connector.
4. Secure the add-on card to the chassis. If required, use the screw that you previously removed.
5. Attach any necessary external cables to the add-on card.
6. Replace the chassis cover.
7. Plug the power cord into the wall socket, and power up the system.