

SUPERMICR Add-On Card for up to Two NVMe SSDs User Guide

[Home](#) » [SUPERMICR](#) » SUPERMICR Add-On Card for up to Two NVMe SSDs User Guide

Contents [[hide](#)]

- [1 SUPERMICR Add-On Card for up to Two NVMe SSDs](#)
- [2 Contacting Supermicro](#)
- [3 Overview](#)
 - [3.1 Technical Specifications](#)
- [4 Hardware Components](#)
 - [4.1 Expansion Card Layout and Components](#)
 - [4.2 Major Components](#)
 - [4.3 Connectors and LEDs](#)
 - [4.4 Standoffs](#)
 - [4.5 Front Jumper Locations and Settings](#)
 - [4.6 Explanation of Jumpers](#)
- [5 Installation](#)
 - [5.1 Static-Sensitive Devices](#)
 - [5.2 Installing Expansion Cards](#)
 - [5.3 Additional Settings](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)





About this User's Guide

This user's guide is written for system integrators, IT technicians, and knowledgeable end users. It provides information for the installation and use of the AOC-SLG3-2M2 expansion card.

About this Expansion Card

The AOC-SLG3-2M2 is an M.2 SSD carrier card that enables the user to add up to two Non-Volatile Memory express (NVMe) M.2 Solid-State Drives (SSDs). M.2 solid-state technology is an optimized, high-performance scalable storage solution, effectively streamlined for enterprise and client systems that leverage the cutting-edge capabilities of PCI-Express.

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. The 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 the AOC-SLG3-2M2 card to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and the shipping package is 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, you can also request a RMA authorization online <http://www.supermicro.com/RmaForm/>.

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.

Conventions Used in the User's Guide

Pay special attention to the following symbols for proper system installation and for safety instructions to prevent damage to the system or injury to yourself:

Note: Additional information given for proper system setup.

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)
Website: www.supermicro.com

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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)
Website: www.supermicro.nl

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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

Website: www.supermicro.com.tw

Overview

Congratulations on purchasing your expansion 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. For product support and updates, please refer to our website at <http://www.supermicro.com>.

Technical Specifications

General

- PCIe 3.0 x8 low-profile card
- Ambient operating temperature from 10°C – 55°C
- Supports up to two NVMe M.2 SSDs

OS Support

The following operating systems and their later versions are supported:

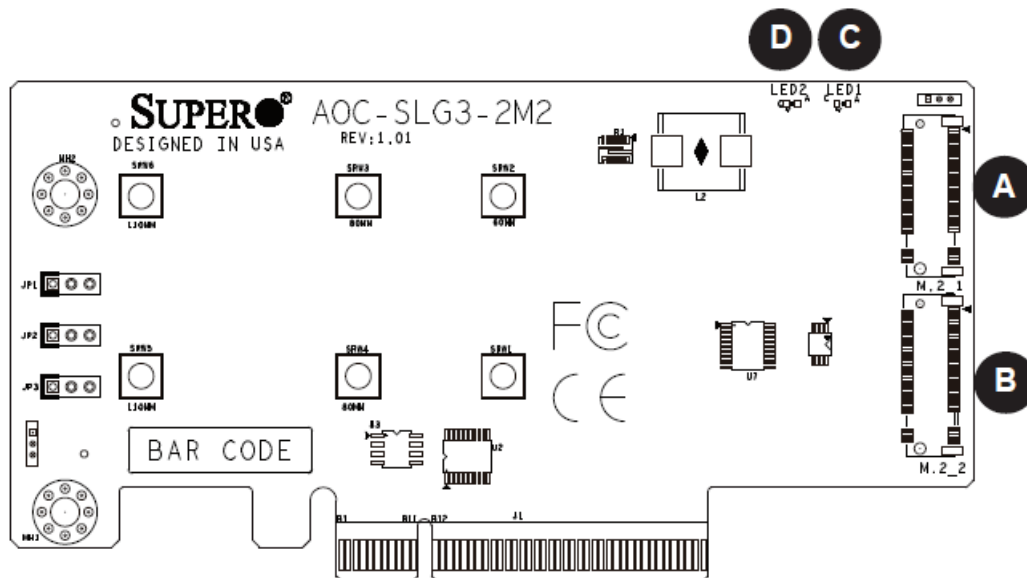
- Windows
- Linux
- VMware

Physical Dimensions

Card PCB dimensions: 2.71" x 5.24" (H x L)

Hardware Components

Expansion Card Layout and Components



The AOC-SLG3-2M2 Layout

Major Components

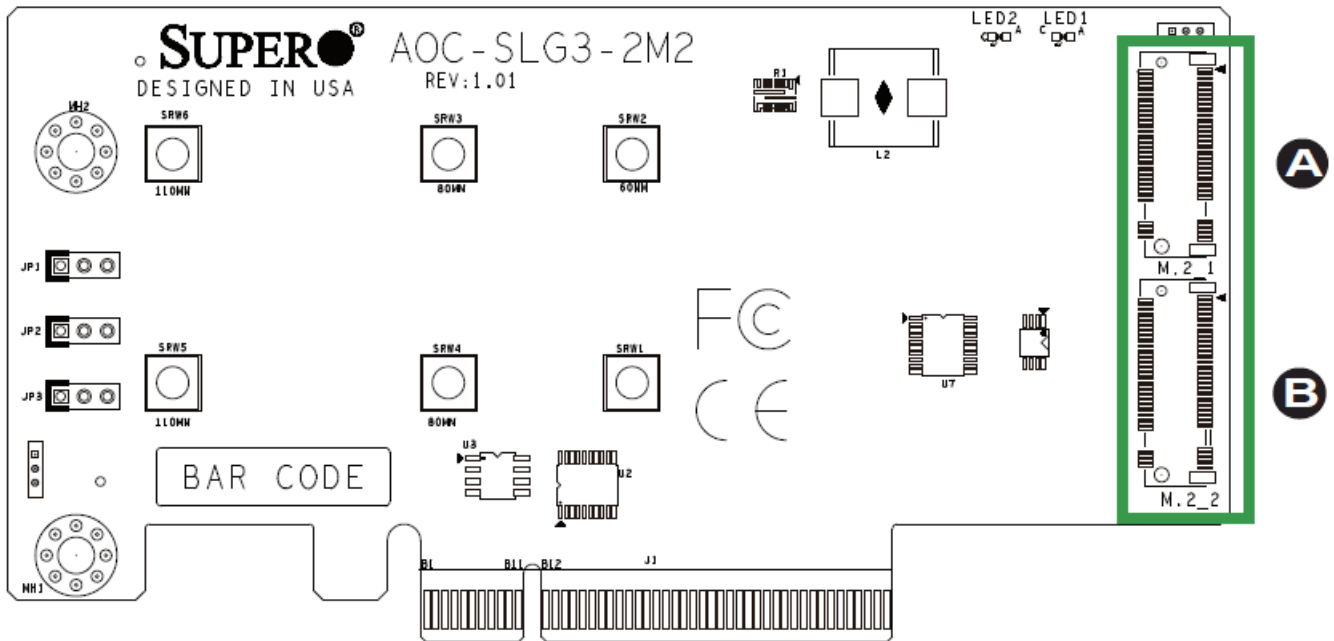
The following major components are on the AOC-SLG3-2M2:

- A. M.2 Socket 1
- B. M.2 Socket 2
- C. M.2 Socket 1 Activity LED
- D. M.2 Socket 2 Activity LED

Connectors and LEDs

M.2 Sockets

There are two M.2 sockets on the expansion card.

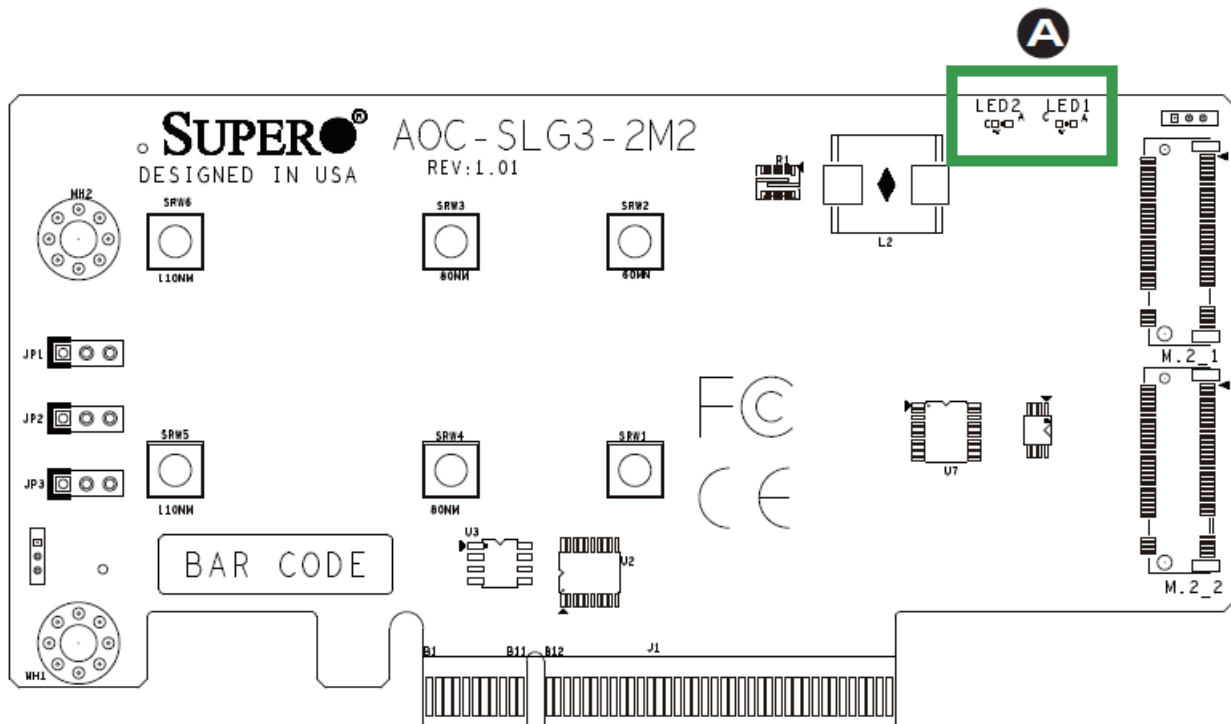


The AOC-SLG3-2M2 NVMe Connectors

- A. M.2 Socket 1
- B. M.2 Socket 2

Activity LEDs

There are two Activity LEDs on the AOC-SLG3-2M2 designated as LED1 and LED2. See the table below for information.



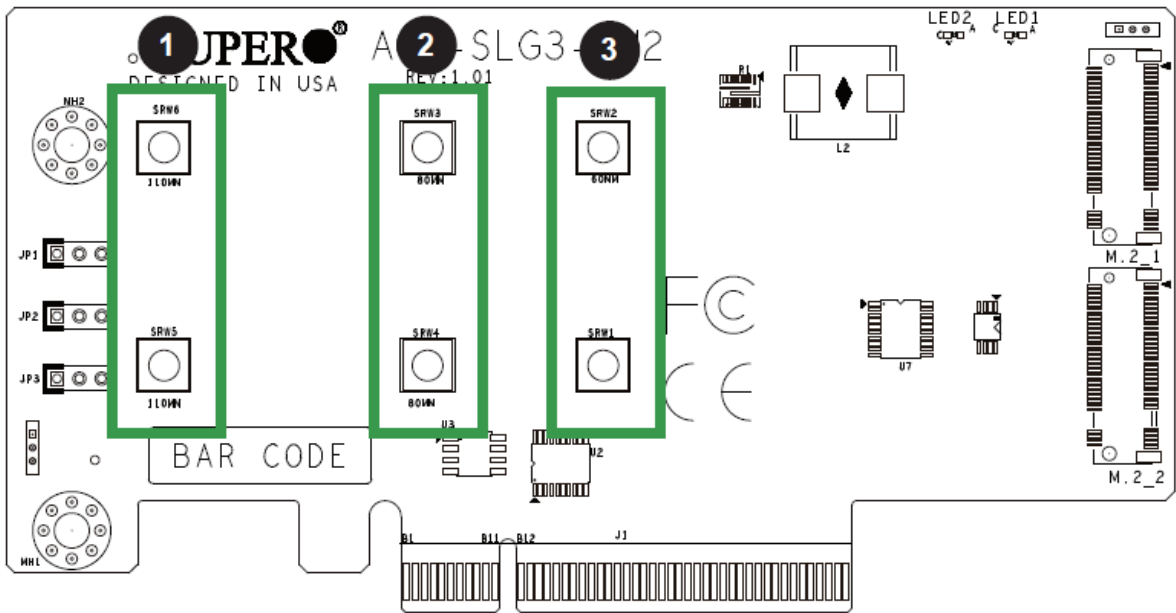
The AOC-SLG3-2M2 LEDs

Activity LED Status		
LED	Color	Status
LED1	Green	Blinks whenever there is any read or write activity on M.2 Socket 1
LED2	Green	Blinks whenever there is any read or write activity on M.2 Socket 2

Standoffs

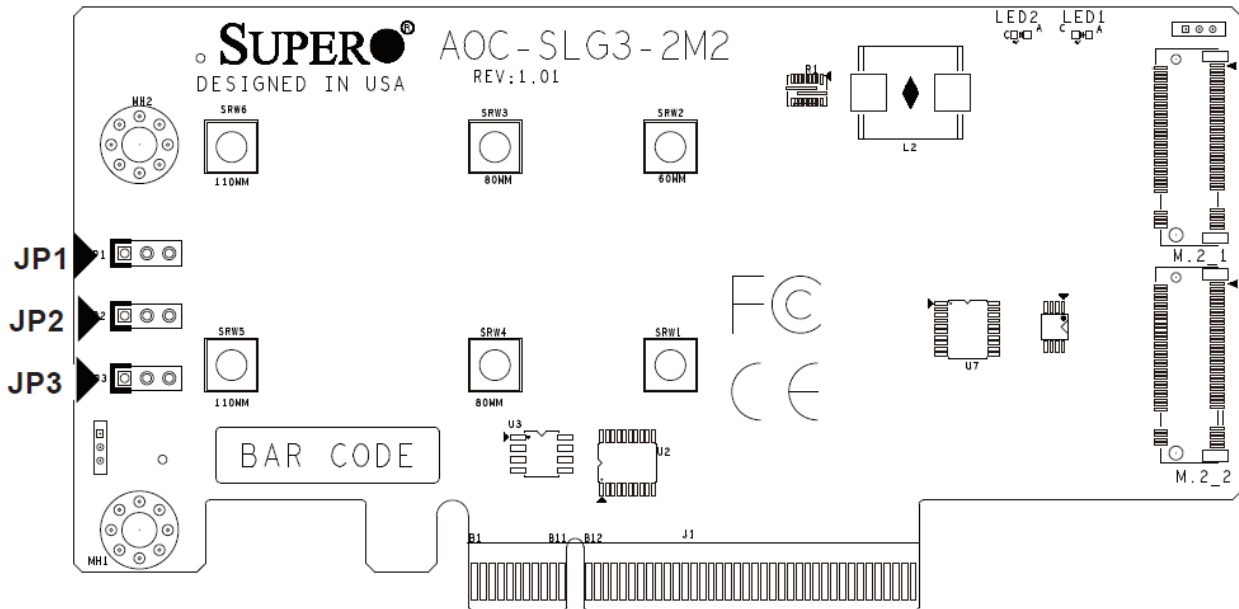
The AOC-SLG3-2M2 is designed with movable standoffs which support three different M.2 SSD lengths. Place the standoffs as indicated below:

M.2 Length	Standoff Positions
22 mm x 110 mm	1: SRW5 and SRW6
22 mm x 80 mm	2: SRW3 and SRW4
22 mm x 60 mm	3: SRW1 and SRW2



The AOC-SLG3-2M2 Standoff Positions

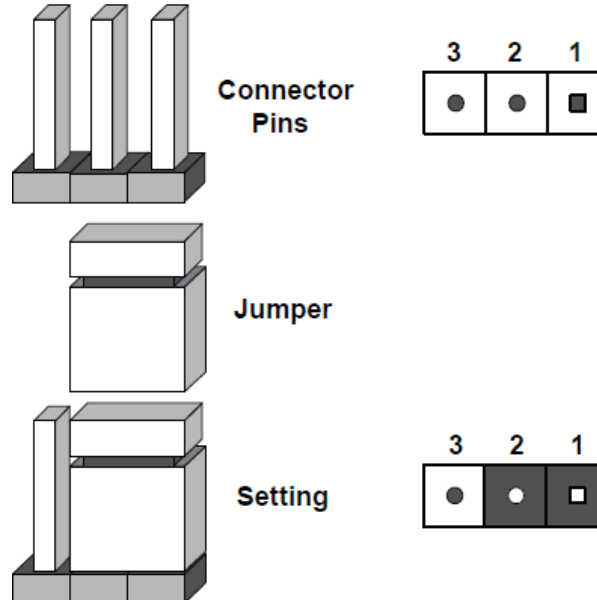
Front Jumper Locations and Settings



The AOC-SLG3-2M2 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.



These jumpers are used to configure the SMBus address where the AOC is detected by the BIOS. The default SMBus address is set to “A0”; however, it can also be configured to a different setting to avoid possible address conflict with another device installed on the same SMBus. Please do not change the default setting unless you are explicitly instructed to do so by Supermicro. It should never be changed unless explicitly instructed by Supermicro.

Note: Unless explicitly instructed otherwise by the manufacturer, do not move the jumpers from their default locations. Doing so may disable the jumpers. Jumpers not documented below are unpopulated.

SMB Address 1-2=0, 2-3=1			
JP3 A2	JP2 A1	JP1 A0	Hex Address
0	0	0	A0
0	0	1	A2
0	1	0	A4
0	1	1	A6
1	0	0	A8
1	0	1	AA
1	1	0	AC
1	1	1	AE

Installation

Static-Sensitive Devices

Electrostatic Discharge (ESD) can damage electronic components. To avoid damaging your expansion 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 expansion card from the antistatic bag.
- Handle the expansion card by its edges only; do not touch its components or peripheral chips.
- Put the expansion 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 expansion card.

Unpacking

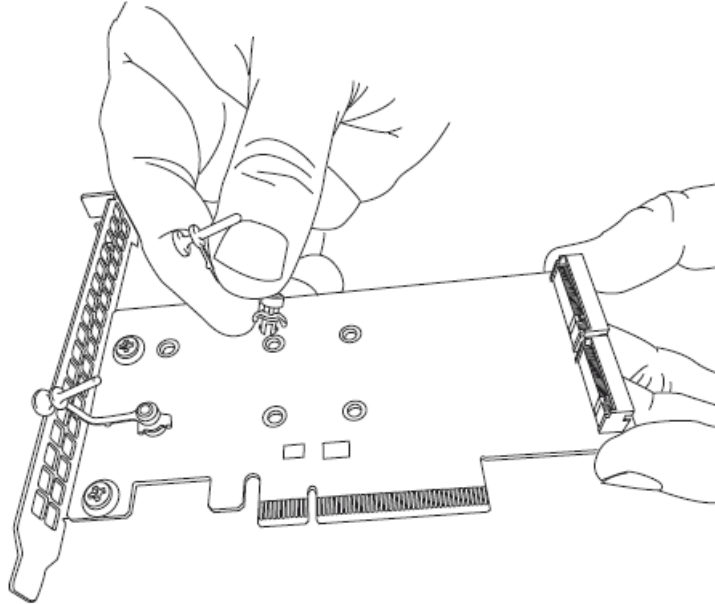
The expansion card is shipped in antistatic packaging to avoid static damage. When unpacking your component, make sure you are static protected.

Note: To avoid damaging your components and to ensure proper installation, be sure to always connect the power cord last, and always remove it before adding, removing or changing any hardware components

Installing Expansion Cards

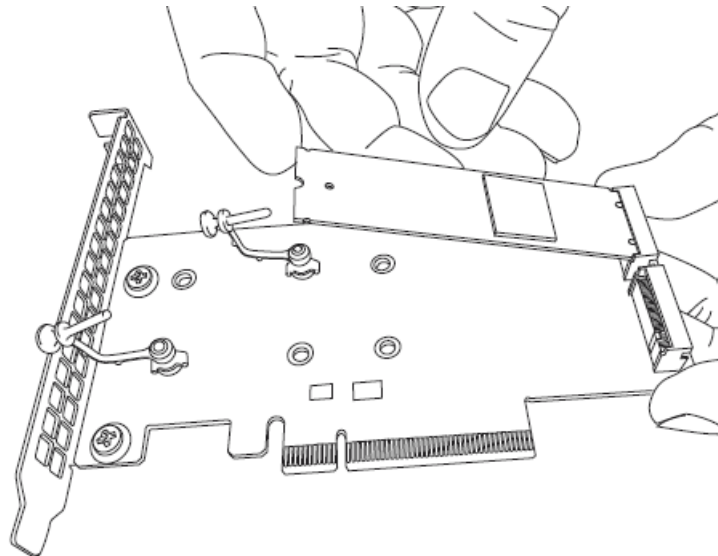
The AOC-SLG3-2M2 supports two M.2 SSDs in 60 mm, 80 mm, or 110 mm length. Visit the Supermicro website for a current list of supported M.2 SSDs. Installing Expansion Cards

1. Power down the system and remove the power cord from the rear of the power supply.
2. Use industry-standard anti-static equipment (such as gloves or wrist strap) and follow the precautions on page 3-1 to avoid damage caused by ESD.
3. For each SSD, install the standoff in the appropriate hole that corresponds with the form factor of the SSD to be installed (60 mm, 80mm, or 110 mm length SSDs are supported). Push the plastic standoff until it snaps into the carrier card.

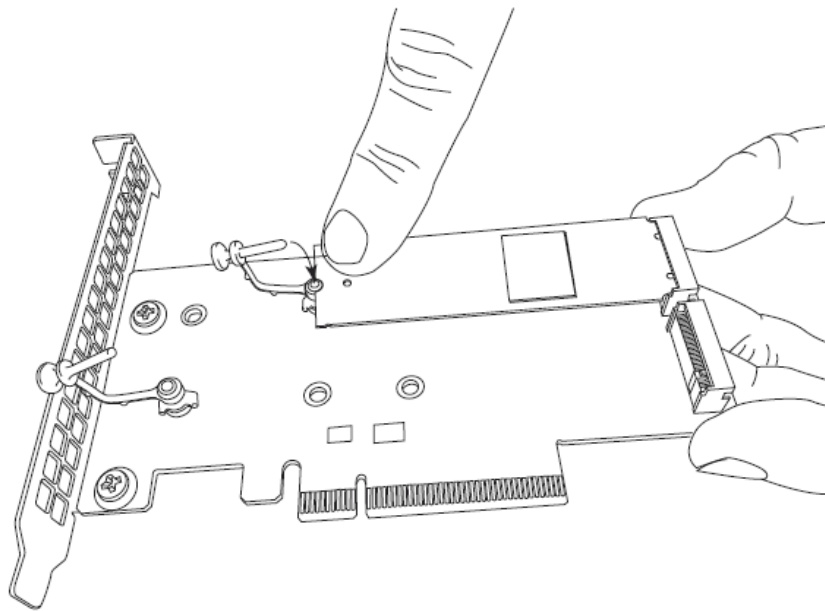


4. Insert one or two M.2 SSDs into the slots on the expansion card. Then push it flat against the carrier card and the plastic standoff.

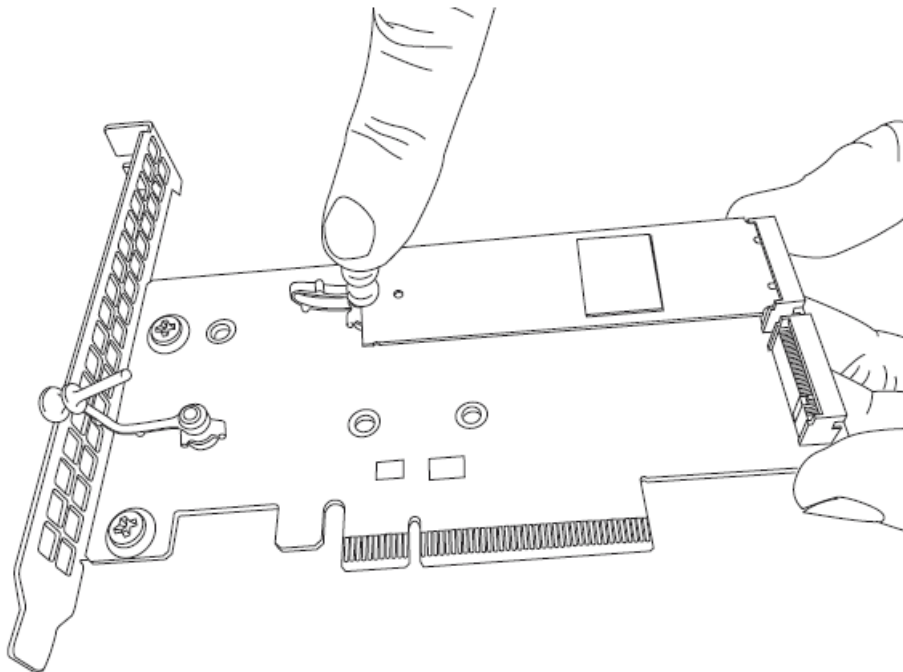
Inserting a M.2 SSD into an Expansion Card Slot



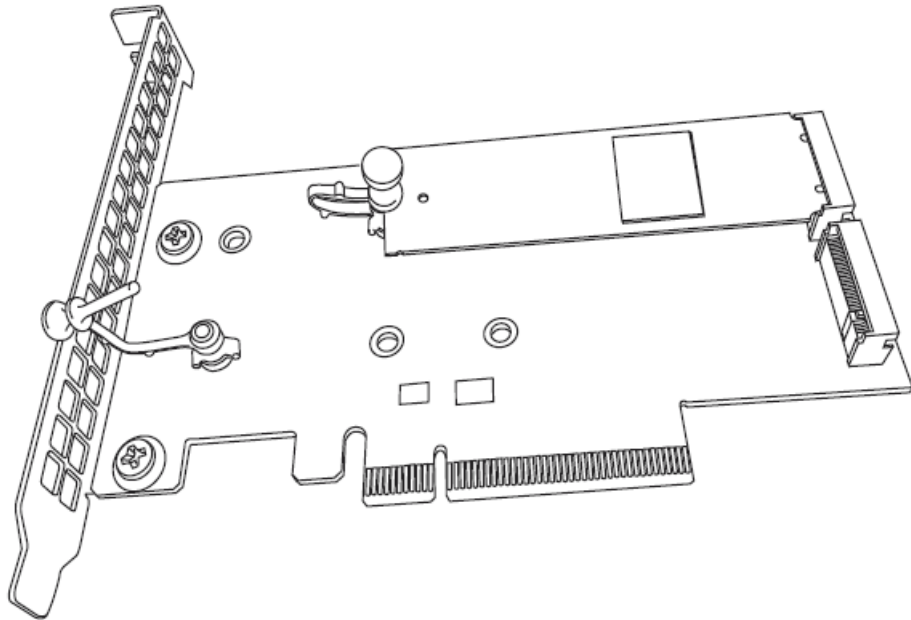
Securing the M.2 SSD to the Expansion Card



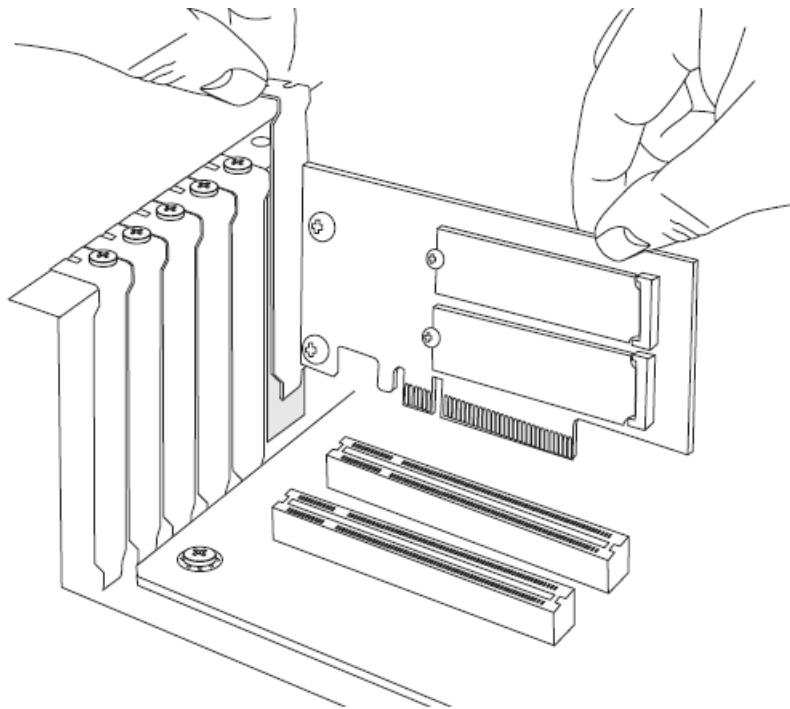
5. Secure each M.2 card by pushing the standoff into place in the mounting hole designated as 60 mm, 80 mm, or 110 mm.



The M.2 SSD secured to the Expansion Card



6. Simultaneously slide the expansion card bracket into the PCIe slot of the chassis, while plugging the expansion card into the appropriate slot on the motherboard.



7. Plug the power cord into the rear of the power supply and power up the system.

Additional Settings

Depending on the system, motherboard, and BIOS version, the following BIOS settings may be necessary for the proper operation of M.2 NVMe drives:

- Having the CPU IOU settings set to x4x4x4x4 PCIe bifurcation. This option may be found under BIOS Setup -> Advanced -> Chipset Configuration -> North Bridge -> IIO Configuration -> CPU Configuration -> IOU Setting -> x4x4x4x4.
- Having the NVMe Firmware Source set to AMI Native Support. This option may be found under BIOS Setup -> Advanced -> PCIe/PCI/PnP Configuration -> NVMe Firmware Source -> AMI Native Support.

Refer to the applicable system or motherboard user's manual.

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, and 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 website at www.supermicro.com.

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FCC Statement: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

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".

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Documents / Resources

 <p>AOC-SLG3-2M2</p> <p>User's Guide</p> <p>Revision 1.1</p>	<p>SUPERMICR Add-On Card for up to Two NVMe SSDs [pdf] User Guide</p> <p>Add-On Card for up to Two NVMe SSDs</p>
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References

- [dtsc.ca.gov/hazardouswaste/perchlorate](https://www.dtsc.ca.gov/hazardouswaste/perchlorate)
- [P65Warnings.ca.gov](https://www.p65warnings.ca.gov)
- [Supermicro Data Center Server, Blade, Data Storage, AI System](#)
- [Supermicro Data Center Server, Blade, Data Storage, AI System](#)
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