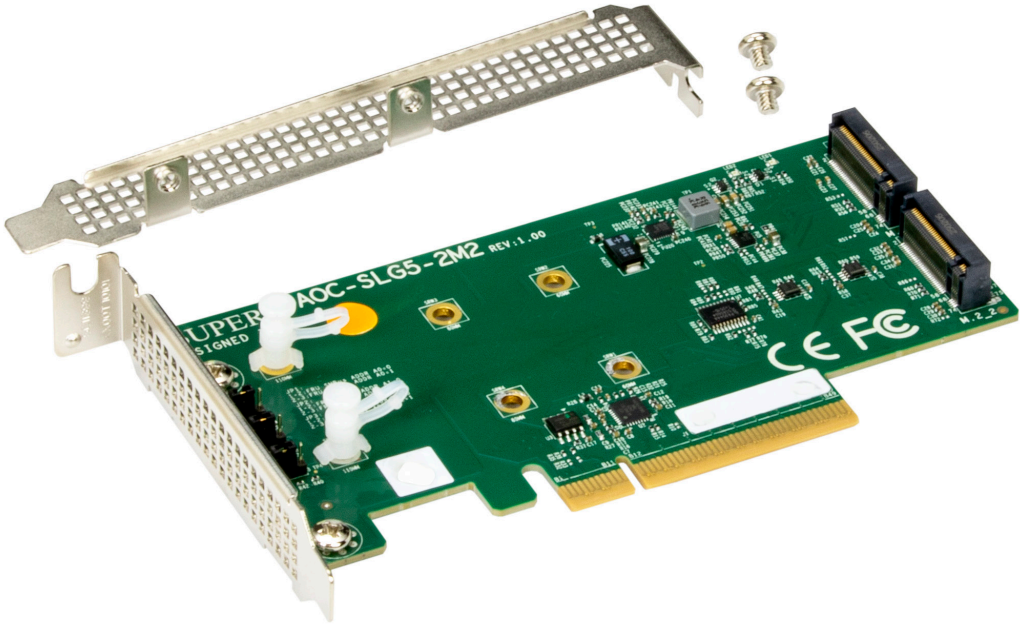
AOC-SLG5-2M2



USER'S MANUAL

Revision 1.0

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Manual Revision 1.0

Release Date: January 07, 2026

Preface

About This Manual

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-SLG5-2M2 add-on card.

About This Add-On Card

The AOC-SLG5-2M2 is an M.2 SSD carrier card that enables you 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 (PCIe).

An Important Note to the User

All graphic images and layout drawings shown in this user's guide are based upon the latest PCB revision available at the time of publishing 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.

Conventions Used in the Manual

Special attention should be given to the following symbols for proper installation and to prevent damage done to the components or injury.

Warning! Indicates important information given to prevent equipment/property damage or personal injury.

Warning! Indicates high voltage may be encountered while performing a procedure.

Important: Important information given to ensure proper system installation or to relay safety precautions.

Note: Additional information given to differentiate various models or to provide information for proper system setup.

Important Links

For your system to work properly, follow the links 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/wdl/driver
- Product safety info: https://www.supermicro.com/en/about/policies/safety-information
- A secure data deletion tool designed to fully erase all data from storage devices can be found at our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wdl/utility/Lot9_Secure_Data_Deletion_Utility/
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- Frequently Asked Questions: https://www.supermicro.com/FAQ/index.php
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This manual may be periodically updated without notice. Check the Supermicro website for possible updates to the manual revision level.

Naming Convention

AOC-	S	L	G5	-	2	M2		
Prefix	1st	2nd	3rd	-	4th	5th	-	6th

Character (Set)	Representation	Options (NVMe AOC)
Prefix	Product Family	• AOC = Add On Card
1st	Interface Type	• S = Standard PCI-E
2nd	Tray Height / Form Factor	• M = Proprietary size • L = Low Profile • H = Full Height
3rd	Generation	• G3 = PCI-E Gen3 • G4 = PCI-E Gen4 • G5 = PCI-E Gen5
4th	Number of Ports	• 2 = 2 ports • 4 = 4 ports • 8 = 8 ports
5th	HBA Type and Connector	• E4 = Switch, Mini-SAS HD • E4R = Redriver, Mini-SAS HD • E4T = Retimer, OCuLink (PCI-E Gen3) or SlimSAS (PCI-E Gen4) • E2P = Switch, OCuLink • X4P = Switch, External Mini-SAS HD • X4T = Retimer, External Mini-SAS HD • M2 = Pass Thru and RAID HBA, M.2 M-Key Socket • H8M2 = Hybrid NVMe/SATA, M.2 M-Key Socket • SM2 = SATA, M.2 M-Key Socket • NM2 = NVMe, M.2 M-Key Socket • M2P = Switch, M.2 M-Key Socket • E1S = E1.S/E3.S Socket
6th	Form Factor	• B/BW = BigTwin™ form factor (1U node height) • BW2 = BigTwin™ form factor (2U node height) • U = Ultra form factor • F = Unique form factor

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Table of Contents

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 of quality and performance. For product support and updates, refer to our website at https://www.supermicro.com/en/products/networking/adapters.

1.2 Key Features

The key features of this add-on card include the following:

- Standard PCIe Gen 5.0 x8 host interface
- Low profile, standard M.2 carrier board
- Supports up to two M.2 NVMe SSDs
- Toolless, adjustable stand-offs support multiple M.2 form factors
- Supports 22110, 2280, and 2260 M.2 SSD form factor
- Thermal operating range: System dependent (55°C/131°F or higher with enough airflow)

1.3 Specifications

OS Support

- Windows
- Linux
- VMWare

Physical Dimensions

- Card PCB dimensions: 5.25" x 2.7" (133.35 mm x 68.58 mm) (L x H)

Chapter 2

Hardware Components

2.1 Add-On Card Image and Layout

Figure 2-1: AOC-SLG5-2M2 Top Image

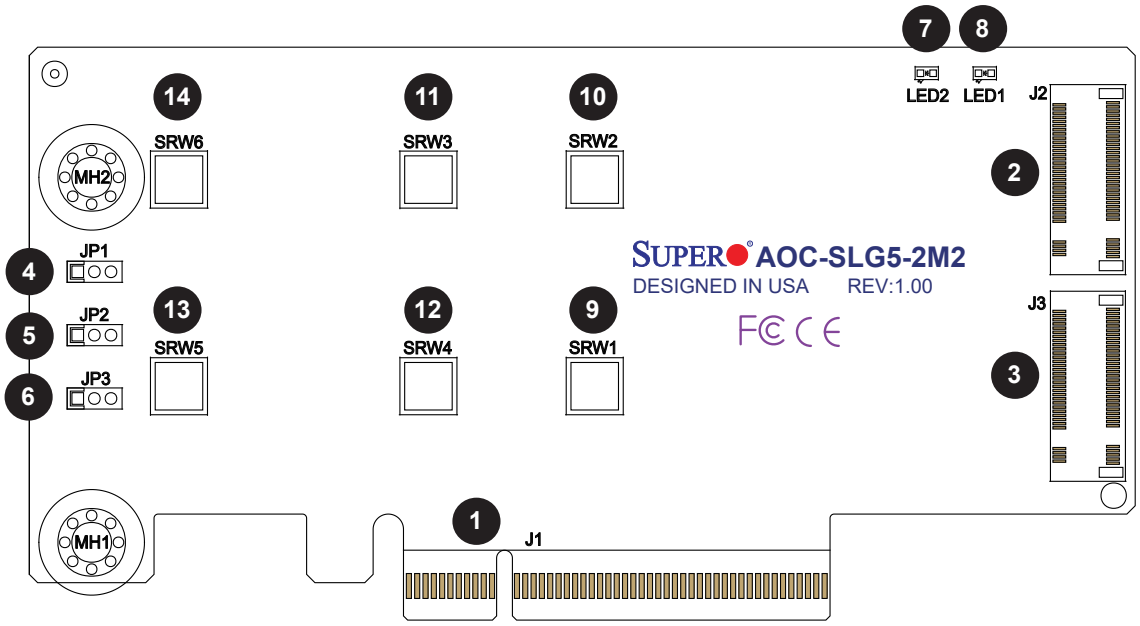


Figure 2-2: AOC-SLG5-2M2 Top Layout

2.2 Major Components

The following major components are installed on the AOC-SLG5-2M2:

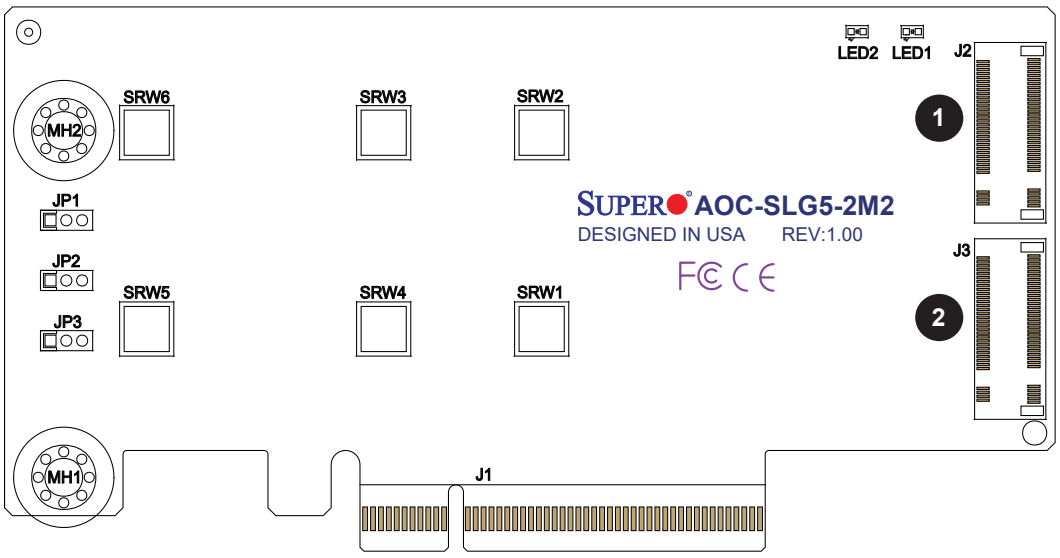
AOC-SLG5-2M2 Major Components		
No	**Component Name**	**Definition**
1	J1	PCIe 5.0 x8 Connector
2	J2	M.2 Socket 1
3	J3	M.2 Socket 2
4	JP1	1–2: FRU SMBus ADDR A0=0
		2–3: FRU SMBus ADDR A0=1
5	JP2	1–2: FRU SMBus ADDR A1=0
		2–3: FRU SMBus ADDR A1=1
6	JP3	1–2: FRU SMBus ADDR A2=0
		2–3: FRU SMBus ADDR A2=1
7	LED1	Activity LED
8	LED2	Activity LED
9	SRW1	Standoff Mounting Hole
10	SRW2	Standoff Mounting Hole
11	SRW3	Standoff Mounting Hole
12	SRW4	Standoff Mounting Hole
13	SRW5	Standoff Mounting Hole
14	SRW6	Standoff Mounting Hole

2.3 Connectors and LEDs

M.2 Connectors

Two M.2 connectors are located at J2 and J3 on the add-on card. The ports operate at up to 32 Gb/s.

1. M.2 Connector 1
2. M.2 Connector 2

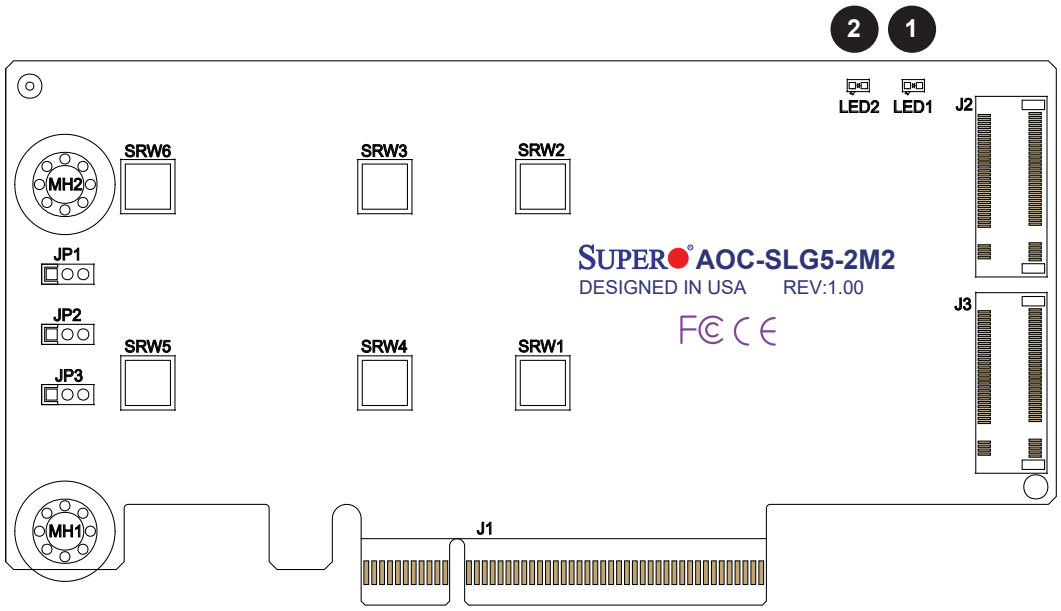


Activity LEDs

There are two activity LEDs located at LED1 and LED2 to indicate the link and activity of each port. The status of the LED(s) will depend on the selected setting of the M.2 connectors.

Activity LED Status		
LED	**Color**	**Definition**
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.

1. Activity LED 1
2. Activity LED 2

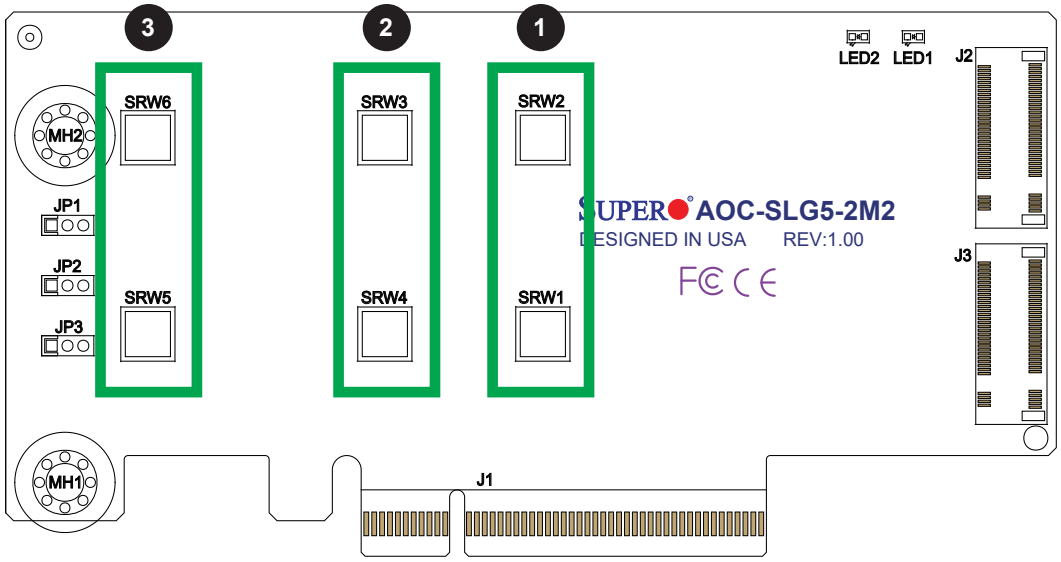


2.4 Standoffs

The AOC-SLG5-2M2 card is designed with movable standoffs, which support three different M.2 SSD lengths. Place the standoffs as indicated:

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

1. Standoff Position 1
2. Standoff Position 2
3. Standoff Position 3



2.5 Jumper Settings

Explanation of Jumpers

To modify the operation of the backplane, add-on card 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. See the motherboard layout page for jumper locations.

Note: On two-pin jumpers, "Closed" means the jumper is on, and "Open" means the jumper is off the pins.

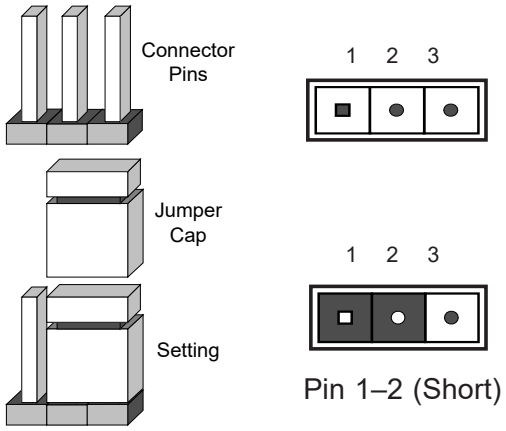


Figure 2-3: Three–Pin Jumper

The AOC-SLG5-2M2 card has three front jumpers located at JP1, JP2, and JP3. These jumpers are used to configure the SMBus address where the add-on card 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 a 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.

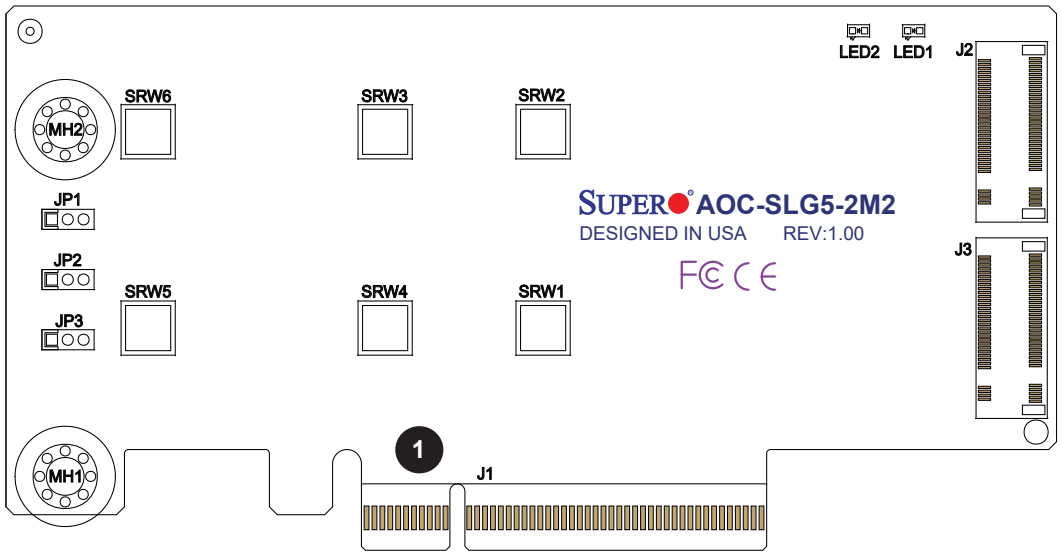
Note: Unless explicitly instructed otherwise by the manufacturer, do not move the jumpers from their default locations. Doing so may disable the jumpers. Jumpers not documented below are unpopulated.

SMB Address 1–2=0, 2–3=1			
JP3 A2	**JP2 A1**	**JP3 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

2.6 PCIe 5.0 x8 Connector

A PCIe 5.0 x8 connector is located at J1 on the add-on card. To use the host interface on this expansion card, insert this connector into a PCIe 5.0 x8 slot on a motherboard.

1. PCIe 5.0 x8 Connector



Chapter 3

Installation

Your system came with the AOC-SLG5-2M2 add-on card, which is designed as a part of an integrated solution. We do not recommend that any part of your system components be removed and reinstalled. However, if you do need to remove or reinstall a system component, including this add-on card, follow the instructions 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.

Unpacking

The add-on card is shipped in antistatic packaging to avoid static damage. When unpacking your component or system, make sure you are static protected.

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

3.2 Installing Expansion Cards

The AOC-SLG5-2M2 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. To install the add-on card properly, be sure to take the following steps:

Installing Expansion Cards

1. Power down the system.
2. Remove the power cord from the rear of the power supply.
3. Use the industry-standard anti-static equipment (such as gloves or wrist strap).
4. Follow the precautions on page 17 to avoid damage caused by ESD.
5. 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).
6. Push the plastic standoff until it snaps into the carrier card.

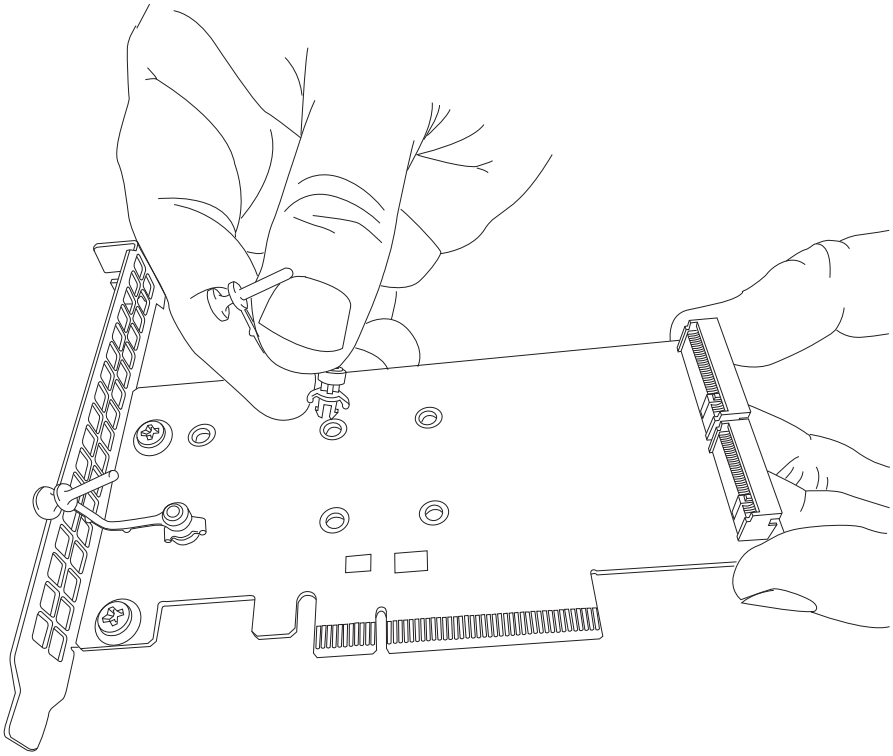


Figure 3-1: Installing Standoff Into Carrier Card

7. Inserting a M.2 SSD into the slots on the expansion card.
8. Then push it flat against the carrier card and the plastic standoff.

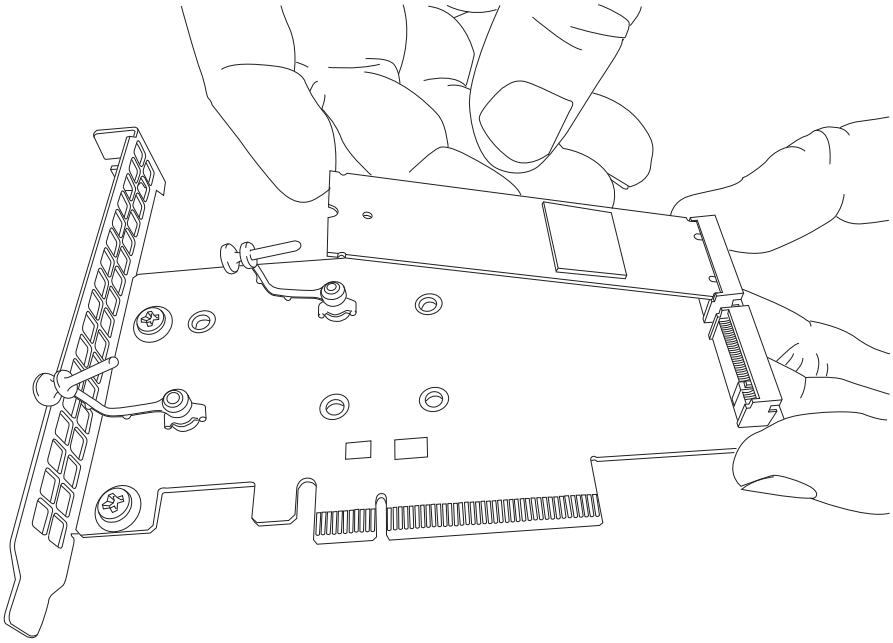


Figure 3-2: Inserting a M.2 SSD Into an Expansion Card Slot

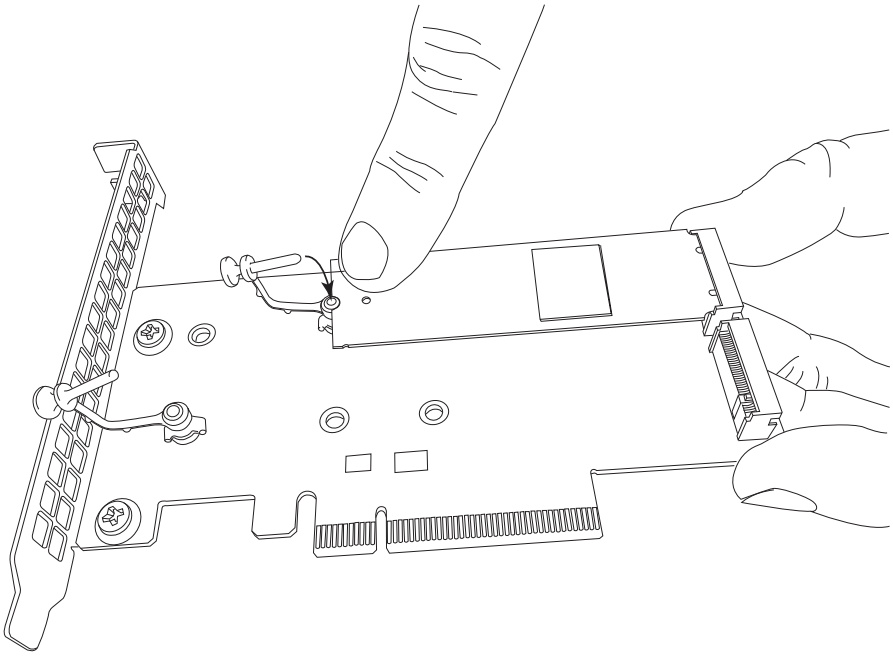


Figure 3-3: Securing the M.2 SSD to the Expansion Card

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

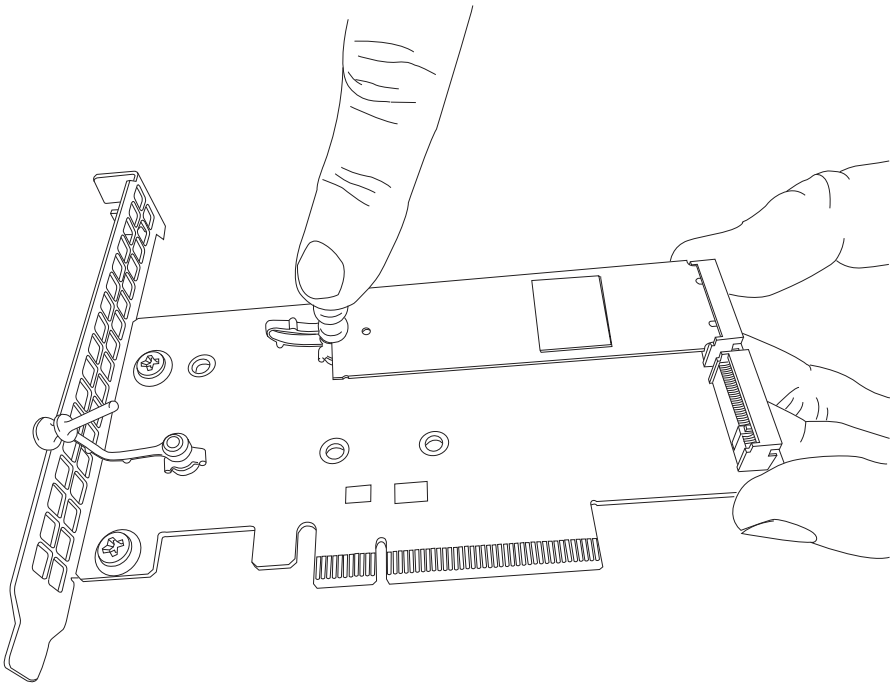


Figure 3-4: Pushing the Standoff Into Place

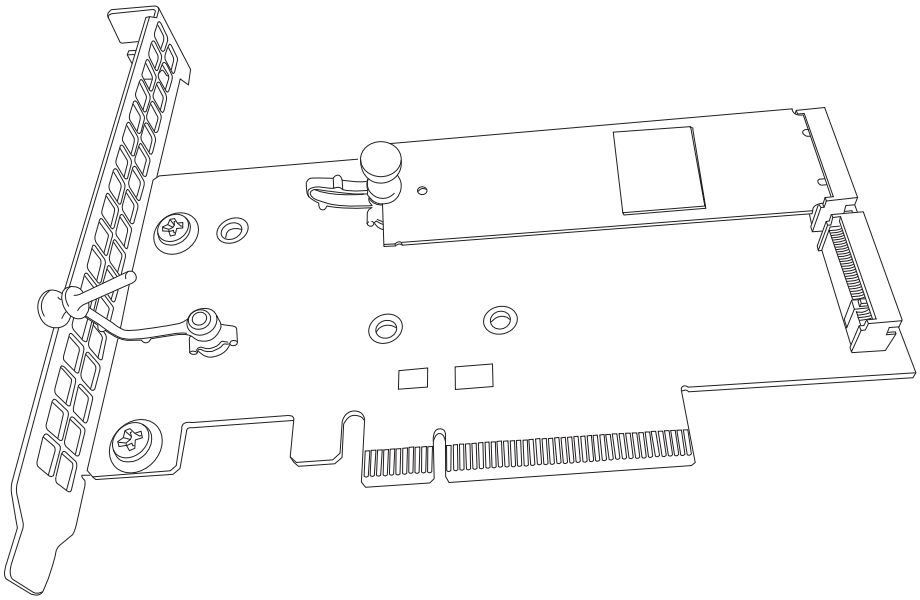


Figure 3-5: Carrier Card with Attached M.2 Card

10. 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.

11. Plug the power cord into the rear of the power supply.

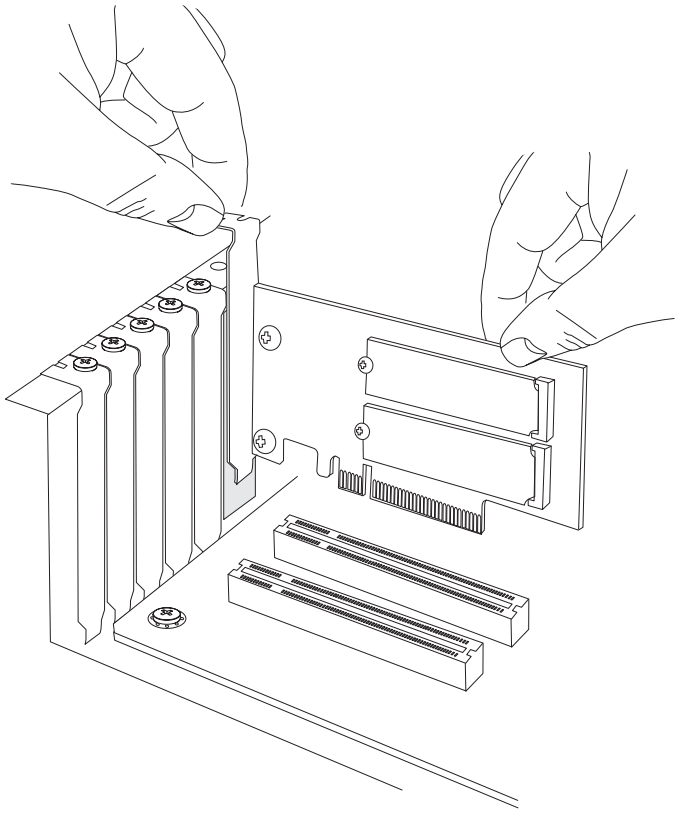


Figure 3-6: Slide the Expansion Card Bracket Into the PCIe Slot While Plugging the Expansion Card Into the Motherboard Slot

12. Power up the system.

3.3 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 the 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.

(Disclaimer Continued)

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