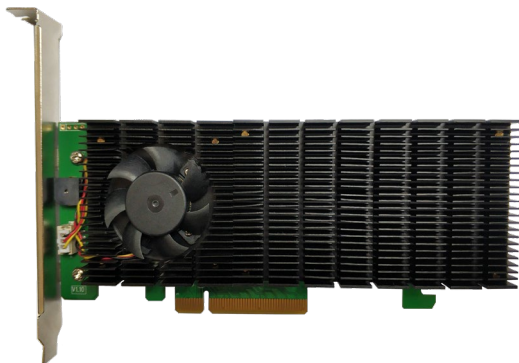


# SSD7202

**2x M.2 Port to PCIe 3.0x8 NVMe RAID Controller**



**Quick Installation Guide**

**V1.05**

## **Introducing the SSD7202**

The SSD7202 is the industry's first ultra-compact, low-profile, bootable NVMe RAID solution for Windows and Linux platforms, and can deliver up to 7,000MB/s of transfer performance from a pair of off-the-shelf M.2 SSD's.

Our third-generation NVMe architecture utilizes a PCIe 3.0 x8 host interface to ensure broad compatibility with a wide range of hardware platforms; the SSD7202 can be easily installed into any industry standard PCIe 3.0 x8 or x16 slot, and is ideal for 1U & 2U servers, or compact systems with low-profile requirements and PCIe 3.0 x8 host interfaces.

The smart-switching x8 interface allows sophisticated card design without compromising performance, and removed the need for a bulky, external case. The SSD7202 features a unique, two-stage cooling solution. The card-length heat sink and a quiet fan ensures critical chipset components remain cool even under heavy load.

Each SSD7202 controller can support striping, mirroring or single disk configurations for up to 2 M.2 NVMe SSD's with form factors 2242, 2260 or 2280.

## SSD7202 Kit Content

- SSD7202 Controller Card
- Quick Installation Guide
- Low Profile Bracket

## Bootable RAID Prerequisites

The SSD7202 can support bootable RAID arrays. After configuring an array using the UEFI RAID tool, you can install a Windows or Linux operating system to the NVMe SSD's.

1. You must have at least one NVMe SSD installed into the SSD7202 controller.
2. The SSD7202 must be installed into a PCIe 3.0 slot with x8 or x16 lanes.
3. Your motherboard must have a UEFI BIOS with option ROM settings for third party devices (such as the SSD7202, optical drives and USB flash drives). If this is not configured correctly, the system will fail to load the SSD7202. Please check the [SSD7202 Compatibility List](#) for recommended motherboards.

4. Install an optical drive into the system (such as a DVD-ROM, DVD-RW or Blu-Ray drive).
5. You will need a USB flash drive– the UEFI package and driver should be extracted to the root directory of this flash drive.
6. Prepare the Installation disc (Windows 10 & later / Windows server 2016 & later, or a Linux Distribution that corresponds with the binary diver you intend to install). Download and burn an official copy of the latest ISO image of your preferred operating system to a DVD. This should be inserted into the optical drive when booting the system.
7. Make sure only the SSD7202, the USB flash drive, and the optical drive are installed into the system during this procedure; you must remove all other drives from your system. This includes any other USB hard drives, USB flash drives, memory sticks, or SAS/SATA drives. You can reattach these drives after the operating system has been successfully installed.

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**Important:** The SSD7202 only supports UEFI boot. If you have other PCIe adapters/controllers installed, you must make sure the SSD7202 controller's is loaded first. Otherwise, you may be unable to boot up your system. Please visit the SSD7202 [Resources](#) and [FAQ](#) pages for more information.

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## Data RAID Prerequisites

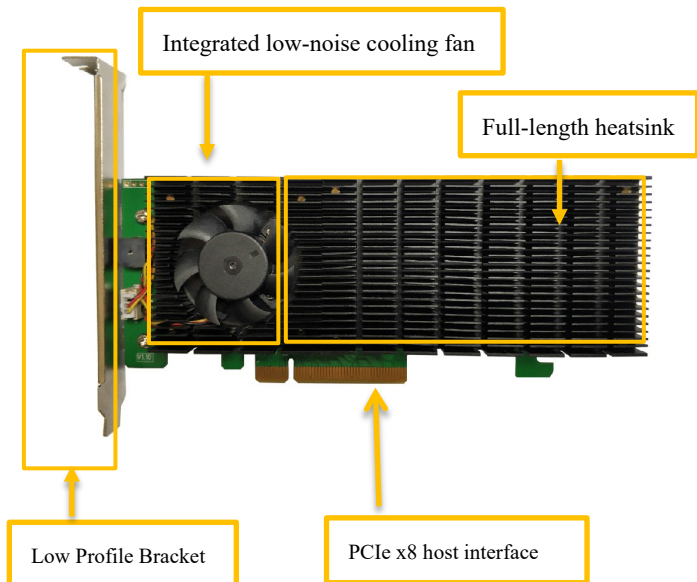
Data arrays are used exclusively for storage – they cannot be used to boot a system.

1. You must have at least one NVMe SSD installed into the SSD7202 controller.
2. The SSD7202 must be installed into a PCIe 3.0 or 4.0 slot with x8 or x16 lanes.
3. Windows 11, 10 / Server 2022, 2019, 2016, 2012R2 / Microsoft Hyper-V
4. RHEL/Debian/Ubuntu/Fedora/Proxmox/Xenserver/Rocky Linux (Linux kernel 3.10 and later)
5. Arch Linux (Kernel 5.17.5 and above)

6. Your motherboard must enable UEFI BIOS settings. Please check the [SSD7202 Compatibility List](#) for recommended motherboards.

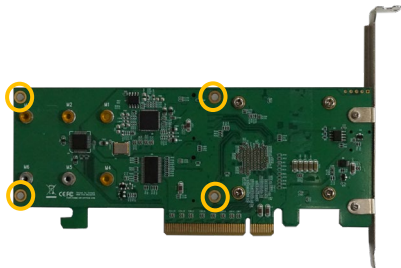
## SSD7202 Hardware

### Front View



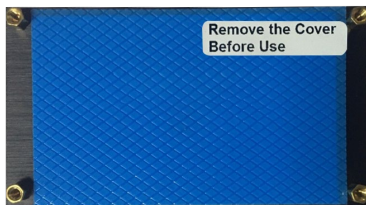
## NVMe Drive Installation

Step 1. On the rear of the SSD7202, remove the four screws that secure the unit's heat sink to the PCB.

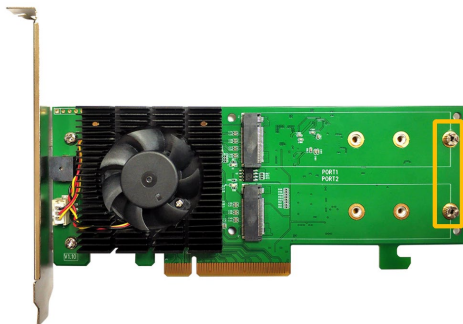


After removing the screws, carefully remove the heat sink from the SSD7202.

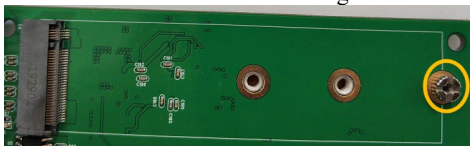
Step 2. After removing the casing, carefully turn it over to view the thermal pad. The blue film must be removed from the pad before reinstalling the panel. This film protects the pad from damage and foreign objects prior to installation, however, it can also prevent the thermal pad from conducting the heat away from the NVMe SSD's if we don't remove it.



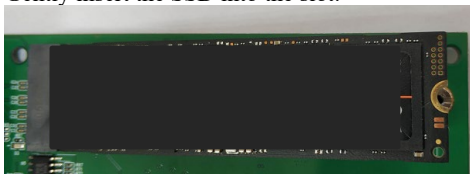
Step 3. These 2 screws are used to install the NVMe



Step 4. Please remove the screws on the right side of SSD7202

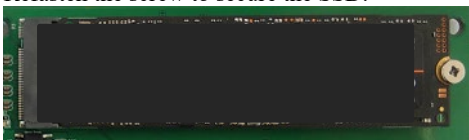


Step 5. Gently insert the SSD into the slot.



**Note:** Please make sure all disks are clean before you insert them into the slot to avoid unexpected situations.

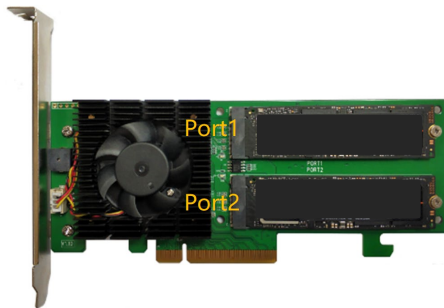
Step 6. Refasten the screw to secure the SSD.



Repeat Steps 4 to 6 to install the remaining SSD.

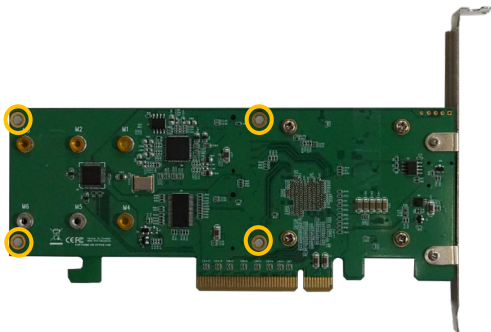
**Note:** Make sure the SSD's are carefully, but securely installed into each M.2 port. Loose connections can cause a variety of stability and performance issues, and may ultimately result in data loss.

The following example shows two M.2 SSDs installed into Ports 1-2 :



Step 7. Replace the heat sink after installing all SSDs

Step 8. On the rear of the SSD7202, refasten the 4 screws that were removed in step 1.



**Note:** Make sure the aluminum cover is properly aligned with the controller board (PCB), and that it makes full contact with the thermal pad, before refastening it to the SSD7202. If the cover is improperly installed, thermal pad will be unable to sufficiently cool the NVMe SSD's and controller componentry, which may result in damage to the SSD's or controller hardware, performance loss, unstable I/O, and the loss of data.

**Note:** Please be sure to connect NVMe before using the product to reduce the occurrence of unnecessary errors!

**Note:** Install the driver in the system first and then install the board !

## **Resources**

A variety of manuals, guides and FAQ's are available for the SSD7202 RAID controller.

In addition, we recommend visiting the Software Downloads webpage for the latest drivers, management interfaces, and installation guides.

For Software Downloads, Documentation and more information about this product, please visit the following website:

<https://www.highpoint-tech.com/gen3-nvme-m2-bootable>

### **FAQ & Troubleshooting:**

[FAQ - HighPoint Technologies, Inc. \(helpjuice.com\)](https://www.highpoint-tech.com/helpjuice.com)

## Customer Support

If you encounter any problems while utilizing the SSD7202 drive, or have any questions about this or any other HighPoint Technologies, Inc. product, feel free to contact our Customer Support Department.

Web Support:

<https://www.highpoint-tech.com/support-and-services>

HighPoint Technologies, Inc. websites:

<https://www.highpoint-tech.com>

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