HighPoint
Technologies, Inc.

SSD7120

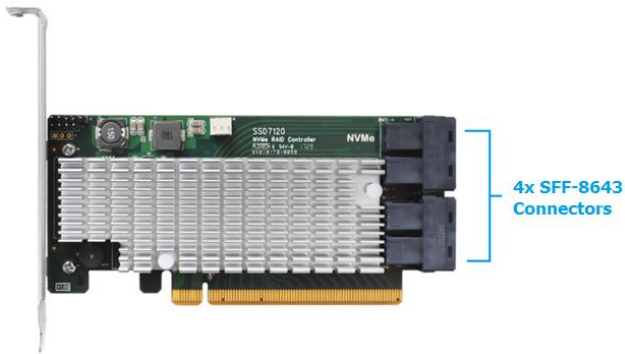**NVMe U.2 RAID Controller**

User Guide
V1.00

System Requirements

System Requirements

- System with an empty PCIe 3.0 x16 slot
- SSF-8643 to U.2 Cable or SFF-8643 cable with NVMe backplane
- Windows 10 or later
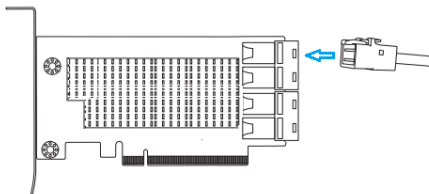- Linux Kernel 3.19 or later

SSD7120 Hardware Overview

Front View

4x SFF-8643 Connectors

Hardware Installation:

1. Remove the system cover.
2. Insert the SSD7120 card into an open PCI-E 3.0 x16 slot on the motherboard.
3. After you have inserted the SSD7120 card, you can connect the SFF-8643 cables.

4. Connect the SSD7120 to the NVMe SSD's using the appropriate SFF-8643 cables.
5. Replace the system cover and power up the system.

Setting up the SSD7120 for a Windows operating system

1. Verifying Installation

    After booting Windows, open **Device Manager**, and expand **Disk drives**. The installed NVMe Drive should be displayed:
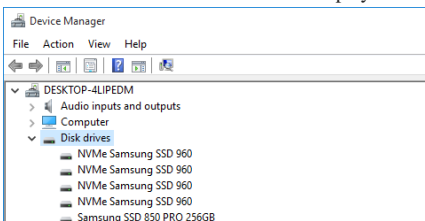
6. Driver Installation

    1) Download the Windows driver package from the HighPoint website: http://highpoint-tech.com/USA_new/series-ssd7120-download.htm
    2) Once downloaded, locate the folder you downloaded the driver to. Extract the driver package and double click the **setup.exe** file to start the Driver Setup Wizard.
    3) Follow the wizard and reboot system to complete the driver installation.
    4) Rebooting. A **RocketNVME RAID Controller** entry should be displayed under **Storage Controllers**:

7. Installing the HighPoint NVMe Manager software

The HighPoint NVMe Manager is used to configure and monitor the SSD7120. Download the HighPoint NVMe Manager Software package from the HighPoint website:

http://highpoint-tech.com/USA_new/series-ssd7120-download.htm

Extract the package and double-click the setup.exe program to install the software.

Setting up the SSD7120 for a Linux Distribution

Please download the Linux Software Package from the HighPoint Website:
http://highpoint-tech.com/USA_new/series-ssd7120-download.htm

Please follow the Linux Installation guide included with the software package to install and setup the SSD7120 drive.

Using the HighPoint NVMe Manager

1.   Starting the HighPoint NVMe Manager

Double click the Desktop ICON to start the Web browser. It will automatically log-in to the HighPoint NVMe Manager using the default password.

The password can be set after the first log-in. To change the password, select **Setting>Security** from the menu bar (see page 15 for more information).

2. Verify the SSD7120 Status

The **Manage** Tab will display the status of the installed SSD7120.
The Virtual Disk is listed under **Logic Device Information**. The
individual NVMe SSDs are listed under **Physical Device Information.**

3. Manage the RAID disk

The SSD7120 only supports one RAID disk. If you need to add new
NVMe SSD, you must first delete the existing RAID disk, and then
re-create a new RAID disk using all of the NVMe SSDs.
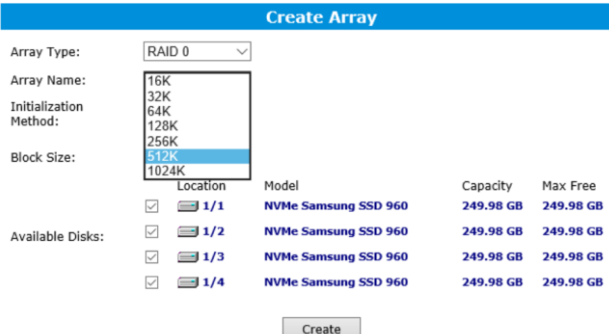
To create a new RAID disk:

1) Click the Create Array link from the Manage page:

2) Review the array settings and confirm RAID creation.
The SSD7120 supports variable RAID Block Sizes from 16K to 1024K. You may adjust the RAID Block size from the Create Array page. Click the Create Button to create the RAID disk.

To delete an existing RAID disk:

Under Logical Device Information, click the **Maintenance** link located to the right of the Status column. Click the **Delete** button from the pop-up **Array Information** Window:

Warning:
Deleting the RAID disk will destroy all data on the existing RAID array. Please make sure to back up important data before proceeding.

Rename a RAID disk:

The NVMe Manager will automatically name a RAID disk as **RAID_NVME**. It will display the disk name under the system device list. You may rename the RAID disk at any time, by clicking Maintenance and accessing the Array Information window.

4. Product Information and Settings

The **Setting** page includes **Product Information**, **Email notification** and **Security** settings.

Product Information:

This section reports the SSD7120's PCI Bus information and PCIe Link status.

Email Notification:

This feature allows you to configure email notification. You can instruct NVMe Manager to send all, or specific Event Log notifications to an Email address of your choice.

Security:

This option allows you to set the NVMe Manager's Log-in port number and Password.

5. Event log

    All NVMe Manager operations and disk status updates will be recorded to
    the Event log. The Event log can be downloaded and saved to a file by
    clicking the Download button.
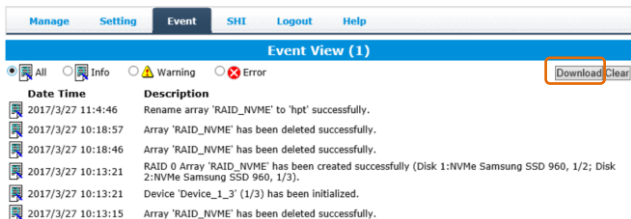
    The **Clear** button can be used to delete all entries and reset the event log.

    Warning:
    We recommend downloading and saving a copy of the current Event Log
    before using the Clear option.

6. SHI (Storage Health Inspector)

The **SHI** page will display S.M.A.R.T. data for each individual NVMe SSD. Click the **Detail** link to the right of each SSD to view the corresponding S.M.A.R.T. attributes. The SSD's TBW (Total Bytes Written) information may help you review and track the SSD's life cycle.

Manage	Setting	Event	SHI	Logout	Help

Storage Health Inspector(SHI)

Port#	Device Serial Number	RAID	Temperature	Total Bytes Written	S.M.A.R.T
1	S3ESNX0J108927R	RAID_NVME	Normal	28.97 TB	Detail
2	S3ESNX0J108901R	RAID_NVME	Normal	31.39 TB	Detail
3	S3ESNX0J108493B	RAID_NVME	Normal	31.17 TB	Detail
4	S3ESNX0J108922W	RAID_NVME	Normal	31.07 TB	Detail

Device Name   Device_1_1

Model Number   NVMe Samsung SSD 960

Temperature Celsius 22

NVME S.M.A.R.T Attributes

Name	Value
Critical Warning	0x0
Composite Temperature (C)	22
Avaliable Spare	100%
Avaliable Spare Threshold	10%
Precentage Used	11%
Data Units Read	0x3fb452d
Data Units Written	0x3b5735d
Host Read Commands	0x108c6260
Host Write Commands	0xfb7c00e
Controller Busy Time	0x733
Power Cycles	0x90
Power On Hours	0x35
Unsafe Shutdowns	0x36
Media and Data Integrity Errors	0x0
Number of Error Information Log Entries	0x184
Warning Temperature Time	0x0
Critical Composite Temperature Time	0x0
Temperature Sensor 1 (C)	22
Temperature Sensor 2 (C)	27

Customer Support

If you encounter any problems while utilizing the SSD7120 controller, or have any questions about this or any other HighPoint Technologies, Inc. product, feel free to contact our Customer Support Department.

Web Support: http://www.highpoint-tech.com/websupport/

HighPoint Technologies, Inc. websites:
http://www.highpoint-tech.com