SSD7101A_SSD7204_SSD7104_SSD7120_SSD6540_SSD654 0M_SSD7180_SSD7184_SSD7140 Driver & Management Software Installation Guide (Windows)

Version 1.04

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SSD7101A_SSD7204_SSD7104_SSD7120_SSD6540_SSD654 0M_SSD7180_SSD7184_SSD7140 Driver & Management Software Installation Guide

This guide includes important hardware/software requirements, installation & upgrade procedures, and troubleshooting tips for using SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controllers with a Windows operating system.

Prerequisites

This section describes the base hardware and software requirements for the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 PCIe 3.0 NVMe RAID controllers.

Driver Installation

This section covers driver installation, driver upgrade and driver uninstallation procedures for SSD7101-A/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controllers.

Management Software Installation

This section explains how to download and install the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 RAID Management Software Suite for Windows operating systems. The download includes both the Web RAID Management Interface (WebGUI), and the CLI (Command Line Interface).

Troubleshooting

Please consult this section if you encounter any difficulties installing or using the SSD7101A-1 /SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controller. It includes descriptions and solutions for commonly reported technical issues.

Appendix

A selection of useful information and web links for the SSD7101A-1/SSD7204/SSD7104/SSD7120 /SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controllers.

Prerequisites for a Data-RAID Configuration

The SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184 /SSD7140 controllers can support Data-RAID arrays. In order to configure a Data-RAID array, you will need the following:

- An NVMe SSD must be installed. You must have at least one NVMe SSD installed into the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/ SSD7140 controller.
- 2. A PCIe 3.0/4.0 slot with x8 or x16 lanes. The SSD7101A-1/SSD7104/SSD7120/SSD6540/ SSD6540M/SSD7180/SSD7184/SSD7140 must be installed into a PCIe 3.0/4.0 slot with x16 dedicated lanes, The SSD7204 can be installed into a PCIe 3.0/4.0 x8 or x16 slot.
- 3. Make sure any non-HighPoint drivers are uninstalled for any SSD's hosted by the SSD7000 series RAID controllers. 3rd party software and manufacturer provided drivers may prevent the SSD7000 from functioning properly.

Warnings:

- 1) Failing to remove the controller and SSD's when uninstalling the driver may result in data loss.
- 2) Always make sure the SSD7000 driver is installed before moving a SSD7000 series NVMe RAID controller & RAID array to another Windows system.

Windows operating systems will always load the default NVMe support after the SSD7000 driver has been uninstalled, or if it detects the present of a card when no driver has been loaded – this driver will only recognize the NVMe SSD's as separate disks.

If the SSD's are recognized separately, any data they contain may be lost – this includes RAID configuration data.

Driver Installation

Installing the Device Driver

The following section discusses driver installation for a non-bootable NVMe configuration.

1. Verify that Windows recognizes the controller

After installing the SSD7000 controller into the motherboard, power on the computer, boot the Windows operating system, and open **Device Manager**.

- A. Expand the **Disk drives** tab. Each NVMe SSD's installed into the SSD7101A-1 /SSD7120/SSD7204/SSD7104/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller should be displayed here.
- B. Expand the Storage Controllers tab. You should see a "Standard NVM Express Controller" entry for each NVMe SSD that is installed into the SSD7101A1/SSD7204/SSD7104/SSD7120/ SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller.

Device Manager	_	×
ile Action View Help		
V 👝 Disk drives		
Samsung SSD 860 PRO 256GB		
Samsung SSD 970 PRO 512GB		
Samsung SSD 970 PRO 512GB		
Samsung SSD 970 PRO 512GB		
Samsung SSD 970 PRO 512GB		
> 🕞 Display adapters		
> Firmware		
> In Human Interface Devices		
> TIDE ATA/ATAPI controllers		
> E Keyboards		
> III Mice and other pointing devices		
> 💷 Monitors > 🗇 Network adapters		
> Print queues		
Processors		
Security devices		
Software devices		
Sound, video and game controllers		
 Storage controllers 		
Storage Controllers		
Standard NVM Express Controller		

Example screenshot (SSD7101A-1/7104/7204/7120/6540/6540M):

Example screenshot(SSD7180/7184):

Disk drives
INTEL SSDPE21K375GA
INTEL SSDPE21K375GA
INTEL SSDPE21K375GA
INTEL SSDPE21K375GA
OCZ-AGILITY3
Samsung SSD 983 DCT 960GB
> 🏣 Display adapters
> 🎽 Firmware
> 🛺 Human Interface Devices
> The ATA/ATAPI controllers
> Keyboards
> III Mice and other pointing devices
> 🛄 Monitors
> 🕎 Network adapters
Other devices
> Portable Devices
> 💭 Ports (COM & LPT)
> 🚍 Print queues
> Processors
Software devices
✓ Storage controllers
Sa Microsoft Storage Spaces Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
Standard NVM Express Controller
> 🎦 System devices

Example screenshot(SSD7140):

B Device Manager File Action View Help

DE	ESKTOP-LDV65Q3
-	Audio inputs and outputs
0	Bluetooth
	Computer
-	Disk drives
	KXG5AZNV256G NVMe SED TOSHIBA 256GB
	KXG5AZNV512G NVMe SED TOSHIBA 512GB
	KXG60ZNV1T02 TOSHIBA
	KXG60ZNV1T02 TOSHIBA
	Samsung SSD 860 PRO 256GB
	Samsung SSD 970 PRO 1TB
	Samsung SSD 970 PRO 1TB
	WDS100T3X0C-00SJG0
	WDS100T3X0C-00SJG0
-	Display adapters
	Firmware
in	Human Interface Devices
-18	IDE ATA/ATAPI controllers
100	Keyboards
	Mice and other pointing devices
-	Monitors
	Network adapters
-	Other devices
	Print queues
-	Processors
2	Security devices
	Software devices
- 6	Sound, video and game controllers
8	Storage controllers
	Sa Microsoft Storage Spaces Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller
	Standard NVM Express Controller

2. Download the Device Driver

Download the appropriate SSSD7000 driver from the controller's Software Downloads webpage.

SSD7101A-1:

https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

SSD7104:

https://highpoint-tech.com/USA_new/series-ssd7104-download.htm SSD7204:

https://highpoint-tech.com/USA_new/series-ssd7204-download.htm SSD7120:

https://highpoint-tech.com/USA_new/series-ssd7120-download.htm SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

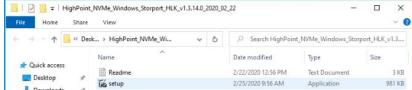
https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140:

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm

3. Install the Device Driver

- A. Locate the driver download and open the file.
- B. Double-click setup.



Note: If installation does not start, you may have to manually start setup using Administrator Privileges. Right-click **setup**, select **Run as Administrator** from the menu, and confirm the popup window to proceed.

File Home	<i>C</i> 1 1 1 1 1 1 1 1 1 1	View	Manage Application Tools	High	Point_I	WMe_Windows_Storport_	HLK_v1.3.14	
File Home	Share	view	Application loois					×.
÷ → • ↑	« win	10 > HighP	oint_NVMe_Wi	~	Ö	,P Search HighPoint	t_NVMe_Windows_Sto	prport_HLK_v1.3
	^	Name	^			Date modified	Туре	Size
🖈 Quick access		Reade	06			2/22/2020 1:56 PM	Text Document	3 K
Desktop	1	Te setup				2/25/2020 10:56 AM	Application	981 K
Downloads	1	ing secop		0	pen			
Documents	1			💡 Ra	un as ai	Iministrator		
Pictures	1			Tr	oublesi	noot compatibility		
📙 driver instal				E So	an witi	Windows Defender		
driver instal				12 St	nare			
h Music				G	ve acci	iss to	>	
Videos						revious versions		
OneDrive				Se	nd to		>	
This PC				C	ut			
3D Objects				C	ору			
Desktop				G	reate sh	ortcut		
B Documents				D	elete			
Downloads				Re	ename			
J Music				Pr	opertie	s		
Pictures								
Videos								
🏪 Local Disk (C:)							
Network	~	<						
	elected 9	80 KB						844

After driver installation is complete, click **OK** to reboot.

stalling Please wait while	HighPoint NVMe Driver is being installed.		E.
Output folder: C:	\Program Files (x86) \HighPoint\rsn∨me\x64		
Extract Es Hie	ghPoint NVMe Driver Setup	×	^
LAUGU	gin one first belop		
Extract	O LET ALL THE REAL PROPERTY AND A REAL PROPERT		
Extract Output	A reboot is required for installation to complete Please save your workspace and press "OK" to re		
Output	Please save your workspace and press OK to h	eboot.	
Extract			
Output		ОК	
Created			
Output folder: 0	C:\Program Files (x86)\HighPoint\rsnvme\x64		~
soft Install System	m u2 46		

C. Once Windows has rebooted, open **Device Manager** to check the status of the driver. Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry. View the properties and click the **Driver** tab:

	HighPoint NVMe RAID Controller Properties	×	
Computer Disk drives Display adapters DVD/CD-ROM drives Human Interface Devices DE ATA/ATAPI controllers Monitors Monitors Portable Devices Protable Devices Portable Devices Print queues Processors Software devices Software devices Software devices Storage controllers HighPoint NVMe RAID Controller Standard NVM Express Controller	General Driver Details Events Image: Algorithm of the system (Advance Univer Provider: HighPoint Driver Date: 2/22/2020 Driver Version: 1.3.14.0 Digital Signer: Microsoft Windows Hardware Compatibility Publisher Univer Details View details about the installed driver files. Update Driver Update the driver for this device. Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver. Disable Device Disable the device. Uninstall Device Uninstall the device from the system (Advance OK Cance		

Example screenshot (SSD7101A-1/7120/7104/7204/6540/6540M)

D. First, make sure the WebGUI has been installed (see page 17). Open the WebGUI and make sure the SSD.'s / arrays are properly recognized.

	Help	SHI	Event	Setting	Logical	Physical	lobal View
	erties	je Prop	Stora				Properties
2048 GB	Total Capacity:		1	ontroller	NVMe RAID C	el: HighPoint	lost Adapter mod
city: 2048 GB	Configured Capac	₽Ĵ—	6			1	ontroller count:
0 GB	Free Capacity:	T	ų			1	nclosure count:
						4	hysical Drive:
						4	egacy Disk:
	figured 100.0%	Cor				0	AID Count:

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Note: Please refer to <u>Appendix A</u> to verify that your Device Manager entries correspond with the driver version you have installed.

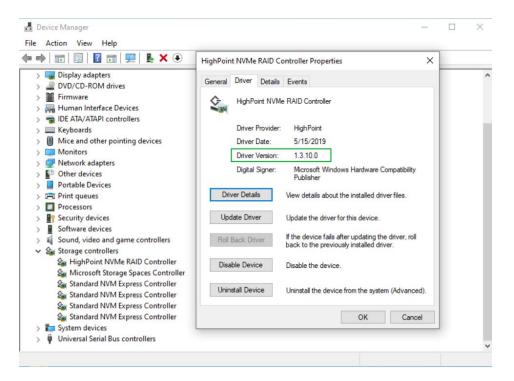
Updating the Device Driver

Note: Before attempting to update the driver entry, ensure that the SSD7101A-1/SSD7204/ SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 is removed from the motherboard.

1. Check the Driver version

Open **Device Manager** to check the current driver version. Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry. View the properties and click the **Driver** tab:

Example screenshot (SSD7101A-1/7120/7104/7204/6540/6540M)



2. Download the Device Driver

Download the latest driver from the controller's Software Downloads webpage.

SSD7101A-1:

https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

SSD7104:

https://highpoint-tech.com/USA_new/series-ssd7104-download.htm

SSD7204:

https://highpoint-tech.com/USA_new/series-ssd7204-download.htm SSD7120:

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

SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140:

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm

3. Shutdown and Remove the Device

A. Power down the system and remove the SSD7101A-1/SSD7204/SSD7104/ SSD7120/ SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 RAID controller from the motherboard.

Note: Failing to remove the SSD7000 controller from the motherboard during the uninstall process may result in data loss. Whenever the driver is uninstalled, Windows will attempt to install the default NVMe support, which may corrupt the RAID configurations and any data stored on SSD's hosted by the SSD7000 controller.

B. Power on the system and boot Windows.

4. Uninstall the old Device Driver

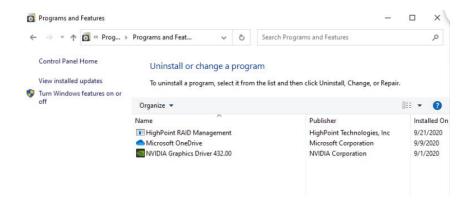
- A. Access Control Panel and select Programs → Programs and Features, and click on the HighPoint NVMe Driver entry.
- B. Click Uninstall/Change

← → * ↑ 🖸 > Contro	I Panel > Programs > Programs and Features			`	 P Search Pro
Control Panel Home	Uninstall or change a program				
View installed updates	To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.			
Turn Windows features on o					
011	Organize 🔻 Uninstall/Change				
	Name	Publisher	Installed On	Size	Version
			6 /1 /2020		
	HighPoint NVMe Driver		6/1/2020		
	HighPoint NVMe Driver HighPoint RAID Management Uninstall/Change	e chnologies, Inc	5/28/2020		
		e thnologies, Inc Microsoft Corporation	Contraction of the second s	138 MB	20.064.0329.0008
	HighPoint RAID Management Uninstall/Change	Microsoft Corporation	5/28/2020	138 MB 20.4 MB	20.064.0329.0008 11.0.50727.1
	HighPoint RAID Management Uninstall/Change Microsoft OneDrive	Microsoft Corporation Microsoft Corporation	5/28/2020 5/29/2020		

C. After uninstalling the driver, click **OK** to reboot.

installing lease wait while	e HighPoint NVMe Driver is being uninstalled.		
elete file: C:\W	/indows\System32\drivers\rsnvme.sys		
Delete f	ighPoint NVMe Driver Uninstall)	× ^
Delete f Delete f Delete f	A reboot is required for uninstallation to com Please save your workspace and press "OK" to		
Remove			
Remove		OK	
Remove			
Delete file: C:	Windows\System32\drivers\rsnvme.sys		~
oft Install Syst	nen 10 44		

D. After Windows has rebooted, access **Control Panel** to make sure the driver has been uninstalled. If there are no HighPoint NVMe RAID/Driver entries present, the driver has been successfully uninstalled:



5. Install the new Device Driver

- E. Locate the driver download and open the file.
- F. Double-click setup.

📙 📝 📙 🖛 Hi	ghPoint	NVMe_Windows_Storport_HLK_v1.3.14.0_	2020_0	2_22			×
File Home	Share	View k → HighPoint NVMe Wi ~	õ	O Secola Mint Date	t NVMe Windows Sto	1.011	~ (
T	w Des	Name	0	Date modified	Type	Size	V1.2
Quick access	*	Readme		2/22/2020 12:56 PM	Text Document		3 KB
Downloads	*	🔂 setup		2/25/2020 9:56 AM	Application		981 KB

Note: If the update does not start, you may have to manually start setup using Administrator Privileges. Right-click **setup**, select **Run as Administrator** from the menu, and confirm the popup window to proceed.

	Manage	High	Point_I	NVMe_G5_RAID_Windows	_StorPort_v1	
File Home Share View	Application Tools					¥ 3
← → · ↑ 🦲 « win10 > HighPi	aint_NVMe >	~	ð	P Search HighPoin	t_NVMe_G5_RAID_Win	dows_StorPort
^ Name	^			Date modified	Type	Size
Quick access x64				4/7/2020 2:10 PM	File folder	
Desktop 🖈 📄 Readm				7/12/2019 5:39 PM	Text Document	4 K)
+ Downloads *				7/12/2010 5-17 PM	Annication	503 K3
🗄 Documents 🖈		0	en			
Fictures #		😵 Ru	in as ad	Iministrator		
driver install	10	Tro	ublesh	loot compatibility	100 C	
Music		🗄 Se	an with	Windows Defender		
New folder1		18 Sh	are		~	
Videos		Gi	ve acce	ss to	>	
		Re	store p	revious versions		
 OneDrive 		- C.	nd to		>	
This PC						
3D Objects		Ci				
Desktop		Co	ру			
Documents		Cr	eate sh	ortcut		
Downloads		De	lete			
Music		Re	name			
E Pictures		Pr	opertie	\$		
Videos		_				
Local Disk (C:)						

G. Windows will notify you that the driver is already installed. Click **OK** to reboot.

utput folder: C	:\Program Files (x86)\HighPoint\rsnvme\x64	
Extracti		
Extract H	ighPoint NVMe Driver Setup	
Extract		
Extract	A reboot is required for installation to complete.	
Output	Please save your workspace and press "OK" to reboot.	
Output		
Extract		
Output	ОК	
Created		
Output folder:	C:\Program Files (x86)\HighPoint\rsnvme\x64	~

- H. After entering the system, **shut down** the system. In the shutdown state, connect the SSD7000 controller to the motherboard.
- I. Boot into the system.
- J. Once Windows has rebooted, open **Device Manager** to check the status of the driver. Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry. View the properties and click the **Driver** tab:

Example screenshot (SSD7101A-1)

Note: The driver revision shown in the screenshots may not correspond with current software releases. Please make sure to download the latest driver updates from the product's Software Updates page.

H Device Manager File Action View Help	-	-	~
← ⇒ ☶ ፼ 및 ┡ × ④	HighPoint NVMe RAID Controller Properties	×	
Computer Disk drives Disk drives	General Driver Details Events Image: Second	~	^
Security devices Software devices Software devices Storage controllers Storage controllers Standard NVM Express Controller Universal Serial Bus controllers	Update Driver Update the driver for this device. Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver. Disable Device Disable the device. Uninstall Device Uninstall the device from the system (Advanced). OK Cancel		

K. Open the WebGUI and make sure the SSD's arrays are properly recognized. Note: make sure the WebGUI has been installed (see page 18).

	Help	SHI	Event	Setting	Logical	Physical	lobal View
	erties	je Prop	Storag				A Properties
2048 GB	Total Capacity:		2	ontroller	NVMe RAID Co	lel: HighPoint	Host Adapter mode
ity: 2048 GB	Configured Capaci	Ĵ,	0			1	Controller count:
0 GB	Free Capacity:	T	U			1	Enclosure count:
						4	Physical Drive:
						4	Legacy Disk:
						0	RAID Count:

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Uninstalling the Device Driver

1. Power down the system and remove the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/

SSD6540M/SSD7180/SSD7184/SSD7140 RAID controller from the motherboard.

Note: Failing to remove the SSD7000 controller from the motherboard during the uninstall process may result in data loss. Whenever the driver is uninstalled, Windows will attempt to install the default NVMe support, which may corrupt the RAID configurations and any data stored on SSD's hosted by the SSD7000 controller.

- 2. Power on the system and boot Windows.
- 3. Access Control Panel and select Programs → Programs and Features, and click on the HighPoint NVMe Driver entry.
- 4. Click Uninstall/Change

⊷ (→ × ↑ 🖬 > Control F	anel > Programs > Programs and Fe	eatures				r ঊ 🖉 Sear	rch Prograr
	Control Panel Home	Uninstall or change a pro	ogram					
	View installed updates	To uninstall a program, select it i	from the list and then	click Uninstall, Change, or Rep	air.			
	Turn Windows features on or off	Organize 🔻 Uninstall/Change						
		Name		Publisher	Installed On	Size	Version	
		HighPoint NVMe Driver			6/1/2020			
		HighPoint RAID Management	Uninstall/Change	hnologies, Inc	5/28/2020			
		 Microsoft OneDrive 		Microsoft Corporation	5/29/2020	138 MB	20.064.0329.0008	
		BMicrosoft Visual C++ 2012 Redistr	ributable (x64) - 11	Microsoft Corporation	5/28/2020	20.4 MB	11.0.50727.1	
		⊯Microsoft Visual C++ 2012 Redistr	ributable (x86) - 11	Microsoft Corporation	5/28/2020	17.3 MB	11.0.50727.1	
		NVIDIA Graphics Driver 432.00		NVIDIA Corporation	5/29/2020		432.00	

5. After uninstalling the driver, click OK to

Delete file: C:\Windows\S	ystem32\drivers\rsnvme.sys		
Delete	NVMe Driver Uninstall		× ^
Delete f			
	boot is required for uninstall		
Delete f	ase save your workspace and p	press OK to reboot.	
Remove			- 1
Remove		OK	
Remove	System32\drivers\rsnvme.sys		_

6. After Windows has rebooted, access **Control Panel** to make sure the driver has been uninstalled. If there are no HighPoint NVMe RAID/Driver entries present, the driver has been successfully uninstalled

← → * ↑ 🖸 « Prog :	> Programs and Feat 🗸 Ö	Search Programs and Features	م
Control Panel Home	Uninstall or change a pro	gram	
View installed updates	To uninstall a program, select it fr	om the list and then click Uninstall, Change, or Repair.	
Turn Windows features on or	10101 0 0 050 1 0 11		
off	Organize 🔻		= • 🕐
	Name	Publisher	Installed O
	HighPoint RAID Management	HighPoint Technologies, Inc	9/21/2020
	 Microsoft OneDrive 	Microsoft Corporation	9/9/2020
	Microsoft UneDrive	inclusion corporation	21 21 2020

Installing the HighPoint RAID Management Software (WebGUI & CLI)

The HighPoint RAID Management Software (WebGUI and CLI utilities) are used to configure and monitor NVMe SSD's hosted by the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M SSD7180/SSD7184/SSD7140 RAID controller. Download the latest software package from the HighPoint website:

SSD7101A-1:

https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

SSD7104:

https://highpoint-tech.com/USA_new/series-ssd7104-download.htm SSD7204:

https://highpoint-tech.com/USA_new/series-ssd7204-download.htm

SSD7120:

https://highpoint-tech.com/USA_new/series-ssd7120-download.htm SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140:

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm

- 1. Extract the package and double-click the HighPoint RAID Management program to install the software.
- 2. Once installed, locate the Management icon on the desktop and double-click to start the WebGUI interface.

Example screenshot (SSD7101A-1)

	SHI	Event	Setting	Logical	Physical	Global View
erties	ge Prope	Storag				BA Properties
Total Capacity: 2048 GB		-	ontroller	NVMe RAID C	el: HighPoint	Host Adapter mode
Configured Capacity: 2048 GB	PŢ—	l 🖯			1	Controller count:
Free Capacity: 0 GB		L.			1	Enclosure count:
					4	Physical Drive:
					4	Legacy Disk:

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Troubleshooting

Note: When troubleshooting your SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/ SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controller, make sure all of the Prerequisites have been met before proceeding.

The WebGUI will not start after double-clicking the desktop icon.

\bigcirc	Hmmmcan't reach this page
.°	Try this
	 Make sure you've got the right web address: http://localhost:7402
	Search for "http://localhost:7402" on Bing
	Refresh the page
	Details
	Report this issue
	Privacy statement

1. This is often the result of a missing driver or improperly installed driver. Open **Device Manager** and check under **Storage Controllers**.

If the Driver is properly installed, you should see a **HighPoint NVMe Controller** entry for SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller, followed by **HighPoint NVMe RAID Controller** entry:

Example screenshot (SSD7101A-1)

Note: The driver revision shown in the screenshots may not correspond with current software releases. Please make sure to download the latest driver updates from the product's Software Updates page.

	HighPoint NVMe RAID Controller Properties	×	
Computer Disk drives Disk drives Display adapters DVD/CD-ROM drives DVD/CD-ROM drives IDE ATA/ATAPI controllers Monitors Monitors Monitors Monitors Portable Devices Portable Devices Processors Processors Software devices Software devices Storage controllers Microsoft Storage Spaces Controller Standard NVM Express Controller	General Driver Details Events Image: Second Se	ll sed).	

2. You should also check to make sure hptsvr is running under Task Management \rightarrow Services. If the status of hptsvr process is Stopped, right-click on this entry and select Start from the menu:

File Options View Processes Performance Ap	pp history	Startup Users Details Services			
Name	PID	Description	Status	Group	
hptsvr		HighPoint RAID Management Service	Stopped		- 1
🔍 xbgm		Xbox Game Monitoring	Sto	Start	
G WSearch	6668	Windows Search	Run	Stop	
Carl WMPNetworkSvc		Windows Media Player Network Sha	Sto	Restart	
🔍 wmiApSrv		WMI Performance Adapter	Sto	Open Services	
🖓 WinDefend	4656	Windows Defender Antivirus Service	Rur		
G WdNisSvc	7540	Windows Defender Antivirus Networ	Rur	Search online	
😪 wbengine		Block Level Backup Engine Service	Sto	Go to details	
🖳 VSS		Volume Shadow Copy	Stopped		-
🕞 vds		Virtual Disk	Stopped		
🖓 VaultSvc	768	Credential Manager	Running		
C UIDetect		Interactive Services Detection	Stopped		
UevAgentService		User Experience Virtualization Service	Stopped		
R TrustedInstaller		Windows Modules Installer	Stopped		
🖳 TieringEngineService		Storage Tiers Management	Stopped		
🗟 sppsvc		Software Protection	Stopped		
🕞 Spooler	3436	Print Spooler	Running		
🗟 spectrum		Windows Perception Service	Stopped		
SNMPTRAP		SNMP Trap	Stopped		
SensorDataService		Sensor Data Service	Stopped		
Sense .		Windows Defender Advanced Threat	Stopped		
SecurityHealthService	4564	Windows Defender Security Center S	Running		
SamSc	768	Security Accounts Manager	Running		

BSOD (Blue Screen of Death)

There are three scenarios in which a BSOD may occur with

SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140:

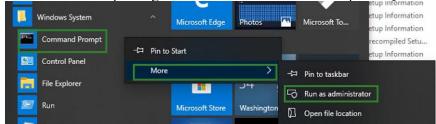
1. Windows displays a BSOD when the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540 /SSD6540M/SSD7180/SSD7184/SSD7140 is installed.

:(
	Your PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you. 5% complete For now elterator, stout the saw and possile fees, with http://www.eltdow.com/intpiction for now elterator, stout the saw and possile fees, with http://www.eltdow.com/intpiction to
5% compl	ete

If you are running Windows 10, please make sure that any **Quick Shutdown** options are disabled – these features can cause a BSOD when the SSD7101A-1/SSD7204/SSD7104 / SSD7120/SSD6540 /SSD6540M /SSD7180 /SSD7184 /SSD7140 is installed into or removed from your motherboard. BSODs can be avoided by **completely powering off** your system.

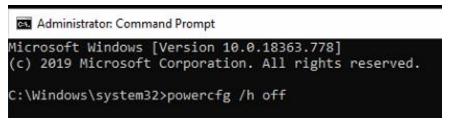
How to Turn off Quick Shutdown for Windows

a. Use administrator privileges to access the Command Prompt utility:



b. Enter the following command and press Enter:

powercfg / h off



c. To make sure the setting has been disabled, enter the following command and press Enter: **powercfg** / **a**

```
:\Windows\system32>powercfg /a
The following sleep states are available on this system:
   Standby (S3)
The following sleep states are not available on this system:
   Standby (S1)
       The system firmware does not support this standby state.
   Standby (S2)
       The system firmware does not support this standby state.
   Hibernate
       Hibernation has not been enabled.
   Standby (S0 Low Power Idle)
       The system firmware does not support this standby state.
   Hybrid Sleep
       Hibernation is not available.
   Fast Startup
       Hibernation is not available.
 \Windows\system32>a
```

- d. Shut down the computer and remove the SSD7101A-1 /SSD7204 /SSD7104 /SSD7120 /SSD6540 /SSD6540M/SSD7180/SSD7184/SSD7140 from the motherboard;
- e. Restart the system and open the SSD7101A-1/SSD7204 /SSD7104 /SSD7120 /SSD6540 /SSD6540M/SSD7180/SSD7184/SSD7140 driver download.
- f. Double-click **Setup** to reinstall the driver; if you are prompted to uninstall the driver, you will need to follow the prompts and restart. After rebooting, double-click **Setup** once more to install the driver.
- g. After the driver installation is complete, shut down the computer. Connect the NVMe SSD's to the SSD7101A-1/SSD7204/SSD7120/SSD6540/SSD6540M/SSD7180/ SSD7184 /SSD7140 and insert it into the motherboard PCIe slot.
- h. Power on the system, boot Windows and access the WebGUI; if the WebGUI can't connect, you need to restart again.
- i. If it fails to start the second time, please access our Online Support portal and submit a support ticket.

Note: If you are running a Server version of windows, and encounter a BSOD at bootup, please collect the following information: Windows version & build numbers, <u>Memory</u> <u>Dump and System event Log</u>

2. A BSOD is encountered when installing the driver:

If you experience a BSOD during driver installation, please collect the following information: <u>Memory Dump</u>, <u>INF log</u>, <u>Debug Log</u>, <u>System Event log</u>, and submit a new support ticket via our Online Support Portal.

3. If Windows reports that driver installation has failed:

a. Please collect these debugging information: <u>INF log</u>, <u>Debug Log</u>, <u>Device</u> <u>Manager/Storage Controller screen shot</u>, <u>System Event log</u>

Note: If you experience a BSOD or error when installing the driver, please ensure that any **Quick Shutdown** options are **not enabled** – Quick shutdown can cause a BSOD when removing the

SSD7101A-1/SSD7204/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 from your motherboard, and plugging it back in. BSODs can be avoided by **completely powering off** your system:

Controller and Drive Detection Issues

- If your motherboard or Windows is unable to detect the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184 /SSD7140 RAID controller or NVMe SSD's, please shutdown the system and try moving the SSD7101A1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 to another PCIe slot.
- Make sure any unrelated NVMe devices are removed from the motherboard while troubleshooting the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M /SSD7180/SSD7184/SSD7140 controller.

Appendix

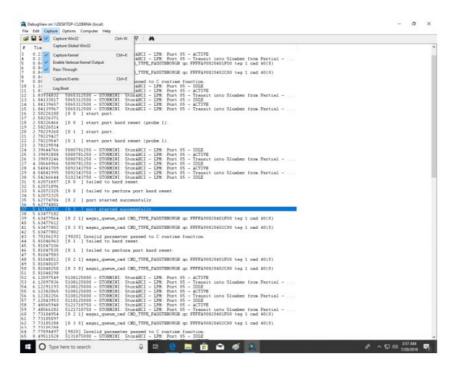
How to Collect Debug View Logs

If other troubleshooting steps fail to solve the problem, we suspect that the driver and management software cannot establish a connection with the

SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller. We will provide you with a Debug version of the driver to collect information about the problem you are experiencing.

To install the Debug driver, follow the standard driver installation procedure (please refer to the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 RAID controller User Guide). After installing the driver, follow the steps below:

- 1. Download the DebugView utility from https://download.sysinternals.com/files/DebugView.zip.
- 2. Unzip, right-click on the icon, and run DebugView with administrator privileges. Select Capture Win32, Capture Kernel, Enable Verbose Kernel Output, and Pass in the Capture toolbar.



 If the utility displays an "access denied" message, rename the following file: C:\Windows\System32\drivers\Dbgv.sys

For example, rename it to "Dbgv.sys1", i.e change the file type.



- 4. Save the information printed by DebugView and send this to our support department.
- 5. If required, we will provide management software information collection tools for the NVMe RAID Manager interface.

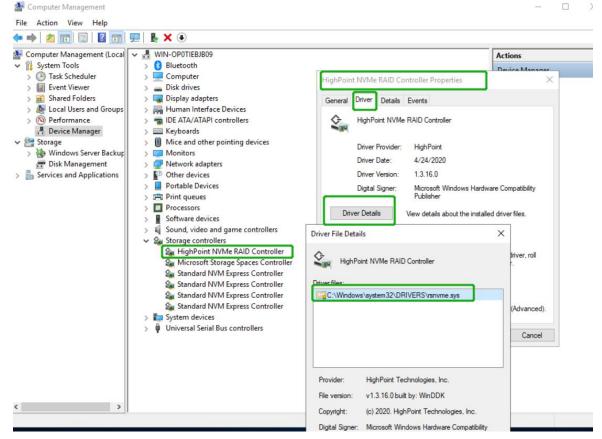
How to Collect INF Logs:

1. Go to drive $C \rightarrow$ Windows \rightarrow INF, and locate the **setuppapi.dev** and **setupapi.setup** logs:

ile Home	Share	View								^	0
to Quick Copy		Cut Copy path Paste shortcut	🛃 Move to 🕶	× De		New folder	Properties	Open ▼ Edit History		ct none rt selection	
Clip	board		Orga	nize		New	0	pen	S	elect	
🛧 🚺	C:\Win	dows\INF		~	Ö	, Search	INF				
Lim		Name	^			Date modifie	d	Туре		Size	
🖈 Quick access		sensorsservi	cedriver			3/19/2019 12:	43 PM	Setup Infor	mation	6	KB
Desktop	A	setupapi.dev	v.20200429_17012	23		4/29/2020 5:01 PM		Text Docum	nent	4,138	КВ
🕹 Downloads	1	📄 setupapi.dev	v			4/29/2020 5:12 PM Text Docu		Text Docum	nent	243	KB
Documents	*	setupapi.off	line.20190318_21	5229		3/19/2019 12:52 PM Text Docu		Text Docun	ument 5,667		KB
Pictures	*	setupapi.set	up			4/27/2020 9:2	9 PM	Text Docum	nent	91	KB
Bandicam		isisraid2				3/19/2019 12:	:43 PM	Setup Infor	mation	5	KB
FormatFactor		sisraid4				3/19/2019 12:	43 PM	Setup Infor	mation	4	KB
	у	SmartSAMD				3/19/2019 12:	43 PM	Setup Infor	mation	9	KB
Music		smrdisk				3/19/2019 12:	43 PM	Setup Infor	mation	2	KB

INF logs can be used to check what kind of software has been installed into the Windows systems.

2. Please access Device Manager, Storage Controllers, and check the properties for the HighPoint entry. Click on Driver Details and take a screenshot – include this with the log files you submit for your support case.

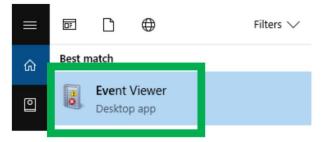


How to Collect System Logs:

In addition to DebugView logs, System Logs can aid our Support department diagnose and resolve the support issues you have submitted. The System Log typically records errors, device failures, and software or driver related incidents. This information can help our engineers narrow down or even identify the source of the problem you are experiencing.

System Log

- 1. Click the **Windows** button towards the bottom left-hand corner of your desktop, and click on the Search field.
- 2. Type Event Viewer and click the icon as shown below:



3. Expand the Windows Log folder and select System:

e 🔶 🙇 💽 👔 🖬	System Numbe	er of events: 17,138					Actions
Windows Logs	Level	Date and Time	Source	Event ID	Task C	^	System
Security	(i) Information	7/9/2018 11:06:41 AM	Service	7040	40 None 16 None		👩 Open Saved Log
	(i) Information 7/9	7/9/2018 10:06:37 AM	Kernel	16			Treate Custom View
	(i) Information	7/9/2018 10:06:25 AM	Kernel	11	None		Import Custom View
F System	(i) Information	7/9/2018 10:06:25 AM	Kernel	11	None		
vents	(i) Information	7/9/2018 10:05:51 AM	Ntfs (98	None		Clear Log
Applications and Services Lo	(i) Information	7/9/2018 10:04:43 AM	Service	7040	None	~	Filter Current Log
Subscriptions	Event 7040 Service	ce Control Manager				×	Properties
	Evene roto, servi	ce control manager					Find
	General Detai	ls					Save All Events As

4. Select Save All Events as... and save the .evtx file in an easy to find location.

Event Viewer (Local)	System Numbe	Actions					
Custom Views Windows Logs	Level	Date and Time	Source	Event ID	Task C	^	System
Application	(i) Information	7/9/2018 11:06:41 AM	Service	7040	None		👩 Open Saved Log
Security	(1) Information	7/9/2018 10:06:37 AM	Kernel	16	None		Treate Custom View
Setup	(1) Information	7/9/2018 10:06:25 AM	Kernel	11	None		Import Custom View
System	(i) Information	7/9/2018 10:06:25 AM	Kernel	11	None		import Custom view
Forwarded Events	(i) Information	7/9/2018 10:05:51 AM	Ntfs (98	None		Clear Log
Applications and Services Lo	(i) Information	7/9/2018 10:04:43 AM	Service	7040	None	~	Filter Current Log
Subscriptions	Event 7040 Servie	ce Control Manager				×	Properties

Collecting Windows Dump Files

Windows Dump files are snap shots that show which processes were running at the time of the event or failure. If possible, locate and upload the following files to your support case:

- Memory.dmp
- Minidump.dmp

To locate the dump files, check the C:\Windows directory and search for Memory.dmp and Minidump.dmp:

