

HighPoint NVMe Data RAID Installation Guide (macOS)

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Overview

This guide includes important hardware/software requirements, installation & upgrade procedure s, and troubleshooting tips for using NVMe products with a macOS operating system.

The	following	is a	list of	supported	NVMe	products.
				11		1

Supported AIC	SSD7540
	SSD7505
	SSD7502
	SSD7140A
	SSD7204
	SSD7104
	SSD7104F
	SSD7101A-1
	SSD7105
	SSD7749M
	SSD7749M2
	SSD7749E
	SSD7120
	RocketAIC 7505HM Series
	RocketAIC 7540HM Series
	RocketAIC 7749EM Series
	RocketAIC 7204HM Series
	RocketAIC 7202HM Series
	RocketAIC 7140AM Series
	RocketAIC 7105HM Series
	RocketAIC 7749MM Series
	SSD6540
Supported Enclosure	SSD6540M
	SSD6444

Prerequisites

This section describes the base hardware and software requirements for NVMe products.

Driver Installation

This section covers driver installation, driver upgrade, and driver uninstallation procedures for NVMe products in a macOS environment.

Troubleshooting

Please consult this section if you encounter any difficulties installing or using NVMe products. It includes descriptions and solutions for commonly reported technical issues.

Appendix

This section describes how to collect troubleshooting information for support cases you have submitted via our Online Support Portal.

Prerequisites

To configure a Data-RAID array, you will need the following:

1. An NVMe SSD must be installed. You must have at least one NVMe SSD installed into the NVMe product.

Note: The RocketAIC 7505HM series, RocketAIC 7540HM series, RocketAIC 7749EM series, RocketAIC 7204HM series, RocketAIC 7202HM series, RocketAIC 7140AM series and RocketAIC 7105HM series NVMe drives already include pre-configured SSDs.

2. A PCIe 3.0/4.0/5.0 slot with x8 or x16 lanes.

Note: If you are using the RocketStor 6661A-NVMe or an SSD7000 NVMe RAID controller via the RocketStor 6661A adapter, the RocketStor unit must be plugged into a ThunderboltTM 3 port.

- 3. Make sure any non-HighPoint drivers are uninstalled for any SSDs hosted by the NVMe products. 3rd party software and manufacturer-provided drivers may prevent the NVMe products from functioning properly.
- 4. Operating System Support: macOS 10.13 or later.
- 5. Before installing the driver and RAID Management software, you should log into the system as a System Administrator.
- 6. Identify the system as either T2 or Non-T2 based if the system has a T2 chip, make sure to follow section 1 before attempting to install any software for the HighPoint NVMe device.
- 7. If you're using the **Apple M1 & M2** Platform, make sure to follow <u>section 3</u> before attempting to install any software for the HighPoint NVMe device.

1. Disabling macOS Secure Boot for T2 Systems

Customers working with Mac platforms manufactured in 2018 or later that feature a T2 security chip, will need to disable the **Secure Boot** to load drivers for third-party devices. HighPoint NVMe products are affected by this requirement.

For a list of products with the T2 Security Chipset, please visit the following website: Mac computers that have the Apple T2 Security Chip

Disabling Secure Boot

To use these products with T2 systems, Secure Boot must be disabled. To disable this feature, select "No Security" from the Startup Security Utility interface. You can access this menu by pressing the Command (\mathfrak{H})-R keys after the Apple logo first appears during the boot-up process.

\bullet \circ \circ	Startup Security Utility					
T	irmware password protection is off. urn on a firmware password to prevent this computer from starting up from a ifferent hard disk, CD, or DVD without the password.					
	Turn On Firmware Password					
Secure Bo	ot					
Full Sec	Full Security					
Ensures	Ensures that only your current OS, or signed operating system software currently					
trusted b	trusted by Apple, can run. This mode requires a network connection at software					
installatio	installation time.					
O Medium	Security					
Allows ar	ny version of signed operating system software ever trusted by Apple to run.					
No Secu	urity					
Does not	enforce any requirements on the bootable OS.					
External B	oot					
Disallow	 Disallow booting from external media					
Restricts	Restricts the ability to boot from any devices such as USB and Thunderbolt drives.					
Allow bo	boting from external media					
Does not	restrict the ability to boot from any devices.					

Instructions are available from Apple's website: <u>About Secure Boot</u>

2. Disabling SIP for macOS 10.13x and earlier

macOS 10.13x and earlier may require that **SIP** (System Integrity Protection) be disabled. If enabled, older versions of macOS may prevent the NVMe drivers from loading. HighPoint NVMe products are affected by this requirement.

Check SIP status

While macOS is running, open a terminal window to confirm whether the System Integrity Protection (SIP) status is disabled. Enter the command: **csrutil status**

•	•						les	12511-	00×
Last	login:	Sat	Oct :	12	16:0	2:36	on	ttys000	
test	OtestsM	B2016	1015	~	% cs	ruti.	l st	atus	
Syst	em Inte	grity	Pro	tec	tion	stat	tus:	enabled.	
test	OtestsM	B2016	1015	~	%				

Note: The example screenshot shown above indicates that SIP is enabled.

Disabling SIP

If enabled, you will need to manually disable the setting. Follow the steps below.

1. Restart the computer and hold down the "**Command** + **R**" buttons. Continue to hold these keys until macOS enters System **Recovery** mode.



Note: If you are unable to enter Recovery Mode to disable SIP. Make sure you are using a wired keyboard and mouse for this procedure. Wireless devices may not be recognized or function properly when booting into this mode.



3. Click on Utilities in the upper left corner and select Terminal:



4. Set SIP to disabled in using Terminal. Enter the following command:

csrutil disable



5. Click the **Apple** logo in the upper left-hand corner of the desktop, and select **Restart** to reboot the system.



6. After rebooting, confirm that SIP is disabled. Open the terminal and type the following command:

csrutil status

```
test --- -zsh -- 80×24
Last login: Sat Oct 12 17:18:44 on console
test@testsMB20161015 ~ % csrutil status
System Integrity Protection status: disabled.
test@testsMB20161015 ~ %
```

If the status is now reported as **disabled**, you can install the HighPoint NVMe macOS driver.

3. Reduced Security Policy – For Apple M1 & M2 Platforms

Customers working with Apple M1 & M2 Platforms will need to **reduce the Security Policy** to load drivers for third-party devices. HighPoint NVMe products are affected by this requirement.

Mac computers with Apple M1 & M2 chips, please visit the following website: Mac computers that have the Apple M1 & M2 Chip

Check Security Policy

Check the system's Security Policy settings to determine if they need to be changed. If Secure Boot is set to "Full Security", please change this to "Reduced Security":

		MacBook Pro
V Hardware ATA Apple Pay Audio Bluetooth	Model Identifier: Firmware Version: Boot UUID: Boot Policy: [Secure Boot:	MacBookPro17,1 iBoot-6723.120.36 EB0BF9A4-BD52-4A36-B9F5-701A30C0417 Reduced Security
Camera Card Reader Controller Diagnostics Disc Burning Ethernet Cards Eibro Chappel	System Integrity Protection: Signed System Volume: Kernel CTRR: Boot Arguments Filtering: Allow All Kernel Extensions: User Approved Privileged MDM Operations: DEP Approved Privileged MDM Operations:	Enabled Enabled Enabled Enabled Yes No No

System Information -> Hardware -> Controller -> Boot Policy

Reduced Security Policy

You can access this menu by:

Shut down the system, **pressing and holding the Power Button** until you see **Loading Startup Options**.



Instructions are available from Apple's website:

About Secure Boot for M1 & M2

4. Installing the Device Driver

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

macOS 10.13/10.14/10.15/11.x /12.x/13.x Driver Installation Procedure

1. Locate the download and double-click the **HighPointNVMe.pkg** package to start the installer. Click the **Continue** button.



2. macOS will prompt you to install the driver. Click **Install** to proceed.

•••		
	Standard Install on "Untitled"	
Introduction	This will take 983 KB of space on your computer.	
Destination Select	Click Install to perform a standard installation of this software	
Installation Type	on the disk "Untitled".	
Installation		
Summary		
	Change Install Location	
	Go Back Install	

 You will be prompted that the installer is trying to install new software, enter the *Administrator* Username and Password. Once these have been entered, Click Install Software.

	Install High	Point NVMe RAID Controller rying to install new software.	
Introduc	Enter your pas	sword to allow this.	
Destinat	User Name:	test	oftware
Installat	Password:	•••••	
Installati			
		Cancel Install Software	
	-		

4. If no pop-ups appear, please proceed to the next step of installation. Click Restart.

	W Install HighPoint NVME RAID Controller
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully.
	Click Restart to begin installing the software. Go Back Restart

5. If you receive a popup window prompting you for permission, click **Open Security Preferences**.

E

• • •		ılly.
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by YilghPoint sup must approve it in the Security & Privacy System Preferences.	successful.
	Click Restart to begin insta	Illing the software.

6. Make sure the **App Store and identified developers** is checked, and then click **Allow**.

Q Search	O Screen Recording
Sign in with your Apple ID	Automation >
🛜 Wi-Fi	App Management >
Bluetooth	Developer Tools
S Notifications	Analytics & Improvements
Sound	Apple Advertising
Screen Time	Security
😥 General	security
Appearance	Allow apps downloaded from App Store
Accessibility Control Center	• App Store and identified developers
Siri & Spotlight	System software from developer "HighPoint Technologies, Inc" was blocked from loading.
🥙 Privacy & Security	Allow
Desktop & Dock	
Dicolour	All

7. You will see a popup window, prompting you to restart. Click Restart.



8. If you receive the permission prompt for the second time, click "**Open Security Preferences**" again.

		ally.	
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by "HighPoint Technologies, Inc". To finish the update, you must approve it in the Security & Privacy System Preferences.	successful.	
	OK Open Security Preferences	italieu.	
	Click Restart to begin insta	lling the software.	

9. Make sure the App Store and identified developers is checked, and then click Allow.



10. You will see a popup window, prompting you to restart. Enter the *Administrator* Username and Password and click **Restart**.

the system.

			\bigcirc
Q Search	-		
Sign in	I Apple Advertising		Drivery & Security
with your Apple ID			Privacy & Security needs to authenticate
🕤 Wi-Fi	Security		to continue.
Bluetooth	Allow apps downloaded from		Enter the password for the user "test" to allow this.
Network	Abb otore		Password
Notifications	11		Cancel OK
Sound		se it is not from an	
S Focus	A restart is required before new	Open Anyway	vare was instaned.
Screen Time	system extensions can be used.		1
General	Restart Not Now	oint Technologies, Inc* has	
Appearance		Allow	estart your Mac.
Accessibility			
Control Center	Allow accessories to connect	Ask for new accessories C	
Siri & Spotlight			Go Back Restart
	The installation was	completed successfull	y.
Introduction			
Destination Select		\cap	
		(./)	
 Installation Type 			
Installation		\mathbf{O}	
		\bigcirc	
Summary	The ins	tallation was s	uccessful.
Summary	The ins	tallation was s	uccessful.
 Summary 	The inst	tallation was s	uccessful. ^{Illed.}
• Summary	The inst	tallation was s	uccessful. Illed.
Summary	The ins	tallation was s	uccessful. Illed.
Summary	The ins	tallation was s The software was insta tart to begin installing	uccessful. Illed.
• Summary	The ins	tallation was s	uccessful. Illed.
• Summary	The ins	tallation was s The software was insta tart to begin installing	uccessful. Illed. the software.

12. After the system restarts, the driver's status can be viewed under System Information→ Extensions; The following screenshot shows the HighPointNVMe driver has been loaded:

		Ma	cBook Pro			
NVMExpress	Extension Name	∧ Version	Last Modified	Notarized	Loaded	Obtained from
PCI	HES MacChineseSimp	8.0	2022/7/22.00:15	Unknown	No	Not Signed
Parallel SCSI	HFS MacChineseTrad	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
Power	HFS MacCyrillic	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
Printers	HFS_MacJapanese	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
SAS	HFS MacKorean	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
SATA	HFSEncodings	1.0	2022/7/22, 00:15	Unknown	No	Not Signed
SPI	HighPointIOP	4.4.5	2022/7/22. 00:15	Yes	No	Identified Develop
Storage	HighPointNVMe	1.1.30	2022/7/25, 00:55	Yes	Yes	Identified Develop
Thunderbolt/USB4			0			
USB	HighDointhWMo			*		
~ Network	HighPolitik v Me.					
Firewall	Version: 1.1.30					
Locations	Last Modified: 2022/7/2	25, 00:55				
Volumes	Bundle ID: com.higl	hpoint-tech.kext.HighPointN	VMe			
WWAN	Notarized: Yes					
WI-FI	Loaded: Yes					
✓ Software	Obtained from: Identifie	d Developer				
Accessibility	Architectures: arm64e	x86 64				
Applications	64-Bit (Intel); Yes	100_04				
Developer	Location: /Library/	Extensions/HighPointNVMe.I	kext			
Disabled Software	Kext Version: 1.1.30					
Extensions	Load Address: 1844674	1874802557000				
Fonts	Loadable: Yes					
Frameworks	Dependencies. Incomple	ete				
Installations	Dependency Resolution Fi	ailures:				
Language & Region	Indirect dependencies	can't be resolved:	com.apple.iokit.IOStor	ageFamily, co	m.apple.iokit.	IOPCIFamily
Legacy Software	Signed by: Develop	er ID Application: HighPoint	Technologies, Inc (DX	6G69M9N2), I	Developer ID (Certification
Logs	Authority	y, Apple Root CA				
Managed Client						
Preference Panes						
Printer Software						
Profiles						
Raw Support						
SmartCards						
Startup Items						
Sync Services	test's MacBook Pro > Sof	tware > Extensions > High	PointNVMe			

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.

5. Updating the Device Driver

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

Note 1: before attempting to update the driver entry, ensure that the NVMe products are installed into

the Mac platform.

Note 2: This driver can be installed directly without uninstalling the driver.

Updating the Device Driver for macOS 10.13/10.14/10.15/11.x/12.x/13.x

1. Locate the download and double-click the **HighPointNVMe.pkg** package to start the installer. Click the **Continue** button.

	Welcome to the HighPoint NVMe RAID Controller Installer
Introduction	You will be guided through the steps necessary to install this software.
Destination Select	
Installation Type	
Installation	
	Go Back Continu

2. macOS will prompt you to install the driver. Click **Install** to proceed.

		Standard Install on "Untitled"
•	Introduction Destination Select Installation Summary	This will take 983 KB of space on your computer. Click Install to perform a standard installation of this software on the disk "Untitled". Change Install Location
		Go Pack Install

3. You will be prompted that the installer is trying to install new software, enter the *Administrator* Username and Password. Once these have been entered, Click Install Software.



4. If no pop-ups appear, please proceed to the next step of installation. Click **Restart.**



5. If you receive a popup window prompting you for permission, click **Open Security Preferences**.

		ıliy.
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by "HighPoint Technologies, Inc: To finish the update, you must approve it in the Security & Privacy System Preferences.	successful.
	OK	
	Click Restart to begin insta	lling the software.

6. Make sure the App Store and identified developers is checked, and then click Allow.

Privacy & Security	Apple Advertising
Desktop & Dock	Security
Wallpaper Screen Saver Energy Saver	Allow apps downloaded from App Store App Store and identified developers
Lock Screen Login Password Users & Groups	System software from developer "HighPoint Technologies, Inc" has been updated.
Passwords Internet Accounts	FileVault Secures the data on your disk by encrypting its content automatically.

7. You will receive a popup window, prompting you to restart. Click Restart.

🛜 Wi-Fi	Security	
8 Bluetooth		
🛞 Network		
Notifications		
🚺 Sound	A restart is required before new oint Technol	logies, Inc" has
C Focus	system extensions can be used.	
Screen Time	Restart Not Now	Allow
General	Allow accessories to connect Ask for	new accessories 🗘
O Appearance		
(1) Accessibility	6 FileVault	Turn On
Control Center	FileVault secures the data on your disk by encrypting content automatically.	
💽 Siri & Spotlight		
🖤 Privacy & Security	data. A recovery key is automatically generated as part of th both your password and recovery key, the data will be lost.	

8. After clicking, the following page will appear, wait a moment.



10. After the system restarts, the driver's status can be viewed under **System Information**→ **Extensions**; The following screenshot shows the **HighPointNVMe** driver has been **loaded**:

		IVIA	своок рго			
NVMExpress	Extension Name	∧ Version	Last Modified	Notarized	Loaded	Obtained from
PCI	HES MacChineseSimp	8.0	2022/7/22.00:15	Unknown	No	Not Signed
Parallel SCSI	HFS MacChineseTrad	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
Power	HFS MacCyrillic	8.0	2022/7/22.00:15	Unknown	No	Not Signed
Printers	HFS_MacJapanese	8.0	2022/7/22, 00:15	Unknown	No	Not Signed
SAS	HFS MacKorean	8.0	2022/7/22.00:15	Unknown	No	Not Signed
SATA	HESEncodings	1.0	2022/7/22.00:15	Unknown	No	Not Signed
SPI	HighPointIOP	4.4.5	2022/7/22. 00:15	Yes	No	Identified Develope
Storage	HighPointNVMe	1.1.30	2022/7/25. 00:55	Yes	Yes	Identified Develope
Thunderbolt/USB4			0			
USB				•		
 Vetwork 	HighPointNVMe:			- .		
Firewall	Version 1120					
Locations	Last Modified: 2022/7/25 0	0:55				
Volumes	Bundle ID: com.highpoi	nt-tech.kext.HighPointN	Me			
WWAN	Notarized: Yes	5				
Wi-Fi	Loaded: Yes					
 Software 	Obtained from: Identified De	veloper				
Accessibility	Kind: Universal					
Applications	Architectures: arm64e, x86	_64				
Developer	64-Bit (Intel): Tes	nsions/HighDointhlyMa	ovt			
Disabled Software	Kext Version: 1.1.30	isions/High-olititi vide.	iext.			
Extensions	Load Address: 1844674187	4802557000				
Fonts	Loadable: Yes					
Frameworks	Dependencies: Incomplete					
Installations	Dependency Errors:					
Language & Region	Dependency Resolution Failur	es:				
Legacy Software	Indirect dependencies car	t be resolved:	com.apple.iokit.IOStor	ageFamily, con	m.apple.iokit.l	IOPCIFamily
Logs	Signed by: Developer IL Authority Ar	Application: HighPoint	rechnologies, inc (DA	ogoamaiaz), t	beveloper iD (Jertification
Managed Client	Autionty, A	ple Root CA				
Preference Panes						
Printer Software						
Profiles						
Raw Support						
SmartCarde						
Startun Items						
Sync Services	■ test's MacBook Pro > Softwar	re > Extensions > High	PointNVMe			
		a contanta ona onghi				

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.

6. Uninstalling the Device Driver

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

Uninstalling the Device driver for macOS 10.13 /10.14 /10.15/ 11.x /12.x /13.x

1. Power off the system and remove the NVMe product from the motherboard. *Note 1:* Failing to remove the NVMe product and SSDs when uninstalling the driver may result in data loss.

Note 2: The macOS will load the default NVMe support after the HighPoint driver has been uninstalled – this driver will only recognize the NVMe SSDs as separate disks.

2. To uninstall the NVMe driver, you will need to open the terminal window and enter the f ollowing command:

sudo rm -rf /Library/Extensions/HighPointNVMe.kext

sudo kextcache --i /

test@testsMB01610152 ~ [%] sudo rm -rf /Library/Extensions/HighPointNVMe.kext Password:
test@testsMB01610152 ~ <mark>% sudo kextcache -i /</mark> kextcache -i /
<pre>kextcache -arch x86_64 -local-root -all-loaded -kernel /System/Library/Kernels/k ernel -prelinked-kernel /Library/Apple/System/Library/PrelinkedKernels/prelinked kernel -volume-root / /Library/Extensions /AppleInternal/Library/Extensions /Lib rary/Apple/System/Library/Extensions /System/Library/Extensions KernelCache ID: 91AFAAB6216EDD61055A39A8E77A483C test@testsMB01610152 ~ %</pre>

3. After uninstalling the driver, manually reboot the system.

7. Installing the RAID Management Software

The following section discusses RAID Management Software installation for NVMe products.

Installing the WebGUI for macOS 10.13/10.14/10.15/11.x/12.x/13.x

1. Double-click the package named **HighPointWebGUI.pkg** to start the installer. When the window appears, click the **Continue** button.



2. You will be promoted to click the Install button. Click Install to continue.

🖲 🕘 🛛 🤤 İn	stall HighPoint Web RAID Controller Management
	Standard Install on "1010"
 Introduction Destination Select Installation Type Installation Summary 	This will take 2.7 MB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.
	Go Back Install

3. You will then be prompted to enter the *Administrator* Username and Password. Once these have been entered, click **Install Software** to continue.

Introduction Destination Se Installation T Summary	Standard Install on "1010" Installer is trying to install new software. Type your password to allow this. Username: Password: Cancel Install Software	re be
	Go Back	

4. The WebGUI Management software has been installed. Click **Close** to complete the procedure.

•••	Install HighPoint Web RAID Controller Management
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully.
	Go Back Close

8. Updating the RAID Management Software

The following section discusses RAID Management Software updates for NVMe products.

Updating the WebGUI for macOS 10.13/10.14/10.15/11.x/12.x/13.x

- 1. First, uninstall the current RAID Management Software. Please refer to <u>Uninstalling the</u> <u>RAID Management Software.</u>
- 2. After uninstalling the RAID Management Software, reboot macOS.
- 3. Once the system has rebooted, download the latest version of the RAID Management Software from the appropriate Software Downloads webpage.
- Locate the download and double-click the package named HighPointWebGUI.pkg to start the installer. Please refer to <u>Installing the RAID Management Software</u> for more information.

9. Uninstalling the RAID Management Software

Uninstalling the WebGUI for macOS 10.13/10.14/10.15/11.x/12.x/13.x

To uninstall the RAID Management Software, access Applications, click on HPTWEBGUI, select uninstall, and double-click the uninstall-WEBGUI.command. The uninstall command will automatically open a terminal and uninstall the software:



[Process completed]

10 Trouble shooting

No controller detected

Enter the WebGUI and prompt no controller detected.

Global View	Physical Logical Se	etting Event SHI	Logout Help				
Diagnostic View							
System		Product					
OS: Kernel: CPU: MotherBoard: T2:	macOS 13.0 22A5311f xnu-8792.0.188.141.3~2 Apple M1 Pro MacBookPro18,3 /	Controller: Driver Name: Driver Version:	No controller detected! No driver detected! /				
Disk: Thunderbolt: Secure Boot: SIP:	APPLE SSD AP0512R RocketStor 6661A Reduced Security Enabled						

This error can be triggered by the following issues:

1. The HighPoint NVMe hardware is not recognized by macOS.

Solution:

Verifying the HighPoint NVMe hardware

- 1. Please refer to the <u>Appendix Verifying Product Installation</u> to make sure the HighPoint NVMe device is properly recognized by macOS.
- 2. If the NVMe product is not recognized, try again with a different slot.
- 3. If you are using the RocketStor 6661A-NVMe and the RocketStor 6661A entry is not displayed, this may be related to a connection problem move the RS6661A to another Thunderbolt[™] 3 port or replace the cable and recheck the entry.

If the controller is still not detected, please submit the log to our online service Link.

No driver detected

Enter the WebGUI and prompt no driver detected.

Global View Physical Logical Setting Event SHI Logout Help						
Diagnostic View						
System			Product			
OS:	macOS 13.0 22A5311f		Controller:	HighPoint SSD7540 NVMe RAID Controller		
Kernel:	xnu-8792.0.188.141.3~2		Driver Name:	No driver detected!		
CPU:	Apple M1 Pro		Driver Version:			
MotherBoard:	MacBookPro18,3			7		
T2:	/					
Disk:	APPLE SSD AP0512R					
Thunderbolt: Secure Boot:	RocketStor 6661A Reduced Security					
SIP:	Enabled					

This error can be triggered by one of the following issues:

1. The HighPoint NVMe device driver is not installed or is not loading properly.

- 2. The system's SIP status is incorrect.
- 3. If you are using a T2 system; Secure Boot may not be disabled.
- 4. If you are using the Apple M1 & M2 system, the Security Policy may not be 'Reduced'.

Solutions:

1. Make sure the HighPoint NVMe Driver is loaded

Please refer to the <u>Appendix - Checking the Driver status and Version</u> to make sure the HighPoint NVMe driver is installed properly.

 If the HighPoint NVMe driver is not loading, refer to <u>Appendix-Check the security &</u> <u>privacy status</u>. If HighPoint software is blocked in the permission, you need to click Allow.

2. Check the SIP status

- 1) Please refer to the <u>Appendix Checking the SIP Status</u>.
- 2) If the settings are not correct for your system, please refer to the driver installation manual for each system to reset the SIP status.

3. For T2 Systems: Make sure Secure Boot is disabled

Please refer to the <u>Appendix - Systems with T2 chipsets - Secure Boot status</u>. If the setting is incorrect, you will need to reboot the system to change the setting.

4. For Apple M1 & M2 Platform: Make sure the Security Policy is reduced

Please refer to the <u>Appendix-Reduced Security Policy</u>. If the setting is incorrect, you will need to shut down the system to change the setting.

If the driver is still not detected, please submit the log to our online service Link.

The WebGUI can't connect to a remote system

If you can't connect to a remote system, make sure **raidman-httpsd** is running on the target system, and confirm that you can access the remote system via a TCP/IP connection. If you have a firewall configured, make sure TCP port 7402 is not blocked.

Appendix

Checking the macOS version

1. Click on the Apple logo located near the upper left-hand portion of the Desktop Then the version number of the system will all be displayed.



Check the security & privacy

1. Check if there is HighPoint software blocked in the permission, if it is blocked, you need to click "Allow".



Verifying Product Installation

- 1. Click on the **Apple** logo located near the upper left-hand portion of the Desktop, and select "**About this Mac**".
 - 1) RocketStor 6661A-NVMe (Thunderbolt entry):

		Macbook Pro
▼ Hardware	Thunderbolt Device Tree	
ATA	Thursderhelt Bus 0	
Apple Pay	Thunderbolt Bus 0	
Audio	 Thunderbolt Bus 1 	
Bluetooth	RocketStor 6661A	
Camera		
Card Reader		
Controller		
Diagnostics		
Disc Burning		
Ethornot Cordo		
Ether Observal		
Fibre Grannel		
Firewire Orachiae (Diastan		
Graphics/Displays		
Memory		
NVMExpress		
PCI		
Parallel SCSI		
Power		
Printers		
SAS		
SATA/SATA Express		0
SPI	PocketStor 66614	
Storage		
Thunderbolt	Vendor Name: HighPoint Technol	logies, Inc.
USB	Device Name: RocketStor 6661A	
V Network	Vendor ID: 0x43	
Firewall	Device ID: 0x6661	
Locations	LIID: 0x0043053BE549	3ED00
Volumes	Route String: 1	
MANAAA	Firmware Version: 26.1	
	Port (Upstream):	
WI-FI	Status:	Device connected
▼ Software	Link Status:	UX2
Accessibility	Current Link Width:	0x2
Applications	Cable Firmware Version:	0.9.0
Developer	Link Controller Firmware Version:	0.36.0
Disabled Software	Port:	
Extensions	Status:	No device connected
Fonts	Link Status:	
Frameworks	Speed: Current Link Width:	Up to 40 GD/S X1

2) If you are using NVMe products, check under Hardware, PCI.

Example screenshot: SSD7505

• • •		Ma	ac Pro		
♥ Hardware	Card		^ Туре	Driver Installed	Slot
ATA	AMD Radeon Pro 580X		Display Controller	Yes	Slot-1@7.0.0
Apple Pay	pci144d,a808		NVM Express Controller	Yes	Slot-3@21,0,0
Audio	pci144d,a808		NVM Express Controller	Yes	Slot-3@22,0,0
Gemeen	pci144d,a808		NVM Express Controller	Yes	Slot-3@23,0,0
Carriera Card Dandar	pci144d,a808		NVM Express Controller	Yes	Slot-3@24,0,0
Card Reader	pci1000,c010		Other Mass Storage Controller	No	Slot-3@32,0,0
Disgoostice	pci1002,aaf0		Audio Device	Yes	Slot-1@7,0,1
Disc Burning	pci1103,7505		RAID Controller	No	Slot-3@27,0,0
Ethernet Cards	pci8086,15eb		Thunderbolt Controller	Yes	Thunderbolt@149,0,0
Fibre Channel	XHC4		USB eXtensible Host Controller	Yes	Thunderbolt@148,0,0
FireWire					
Power Printers SAS SATA/SATA Express SPI Storage Thunderbolt USB Network Firewall	Slot: Vendor ID: Device ID: Subsystem Vendor ID: Subsystem ID: Revision ID: Link Width: Link Speed:	Slot-3@27,0,0 0x1103 0x7505 0x1103 0x0001 0x0001 x2 5.0 GT/s			
Volumes WWAN					

Checking the SIP Status

Open a Terminal window and enter the following command:

csrutil status

Please take a screenshot of the output, and attach it to a support case (see example below):



The status will vary depending on which version of macOS you are using.

MacOS Version	SIP Status	Driver Status
10.13.x	Disable	Loaded
10.14.x	Enable	Loaded
10.15.x	Enable	Loaded
11.x	Enable	Loaded
12.x	Enable	Loaded
13.x	Enable	Loaded

Please refer to **Disabling SIP** (for macOS13x and earlier)

Systems with T2 chipsets – Secure Boot status

You will need to reboot the system and enter Recovery Mode to check the Secure Boot status. This setting should remain disabled.

Please refer to **Disabling Secure boot.**

Apple M1 & M2 Platform – Reduced security policy

Check if Secure Boot is Reduced Security.

System Information -> Hardware -> Controller -> Boot Policy

		MacBook Pro
✓ Hardware	Medel Identifier	MapPackDro171
ATA	Firmware Vereien:	MacbookPro17,1
Apple Pav	Firmware version:	IB001-0/23.120.30
Audio	Boot UUID:	EB0BF9A4-BD52-4A36-B9F5-701A30C0417
Bluetooth	Secure Boot:	Paducad Security
Camera	System Integrity Protection:	Enabled
Card Reader	Signed System Volume:	Enabled
Controller	Kernel CTRR:	Enabled
Controller	Boot Arguments Filtering:	Enabled
Diagnostics	Allow All Kernel Extensions:	Vec
Disc Burning	Liser Approved Brivilaged MDM Operations	No
Ethernet Cards	DED Approved Privileged MDM Operations:	No
	DEP Approved Privileged MDM Operations:	NU

Secure Boot must be **reduced Security** to load drivers for third-party devices, if change please refer to: **<u>Reduced Security Policy</u>**

Checking the Driver status and Version

- 1. Click on the **Apple** logo located near the upper left-hand portion of the Desktop, and select "**About this Mac**".
- 2. Click on **Extensions**, and then click on **HighPoint NVMe** entry please take a screenshot and attach it to this support case (see the example below):

• • •			Ma	cBook Pro			
NVMExpress	Extension Name		~ Version	Last Modified	Notarized	Loaded	Obtained from
PCI	HES MacChineseSir	00	8.0	2022/7/22 00:15	Unknown	No	Not Signed
Parallel SCSI	HFS MacChineseTra	d	8.0	2022/7/22.00:15	Unknown	No	Not Signed
Power	HFS MacCyrillic		8.0	2022/7/22.00:15	Unknown	No	Not Signed
Printers	HES MacJapanese		8.0	2022/7/22 00:15	Unknown	No	Not Signed
SAS	HES MacKorean		8.0	2022/7/22 00:15	Unknown	No	Not Signed
SATA	HESEncodings		1.0	2022/7/22 00:15	Unknown	No	Not Signed
SPI	HighPointIOP		445	2022/7/22 00:15	Yes	No	Identified Develop
Storage	HighPointNVMe		1130	2022/7/25 00:55	Yes	Yes	Identified Develop
Thunderbolt/USB4							
USB	HighBointNVMo				*		
Network	right on the						
Firewall	Version:	1.1.30					
Locations	Last Modified:	2022/7/25.00:55					
Volumes	Bundle ID:	com.highpoint-tech.ke	xt.HighPointN\	/Me			
WWAN	Notarized:	Yes					
Wi-Fi	Loaded:	Yes					
Software	Obtained from:	Identified Developer					
Accessibility	Kind:	Universal					
Applications	Architectures:	armo4e, xoo_04					
Developer	Location:	/Library/Extensions/Hit	hPointNVMe k	ext			
Disabled Software	Kext Version:	1.1.30	in onutrino.				
Extensions	Load Address:	184467418748025570	000				
Fonts	Loadable:	Yes					
Frameworks	Dependencies:	Incomplete					
Installations	Dependency Errors						
Language & Region	Dependency Re	solution Failures:		and the later second			00000
Legacy Software	Rigged but	endencies can't be reso	rvea: c	com.appie.iokit.lOStor	ageramily, co	m.appie.iokit.	Certification
Logs	signed by:	Authority Apple Boot	CA Page Point	recrimologies, Inc (DXI	0000m9N2J, I	severoper in (serunsation

System Information→Software→Extensions→HighPointNVMe

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.

How to Collect Diagnostic Logs

We have provided a detailed video on log collection methods: link

 1-Click Self-Diagnostic Solution: Diagnostic View provides a "1-click" information collection system for troubleshooting. It will gather all necessary hardware, software, and storage configuration data and compile it into a single file, which can be transmitted directly to our FAE Team via our Online Support Portal.

Diagnostic View						
System		Product				
OS: Kernel: CPU: MotherBoard: T2: Disk: Thunderbolt: Secure Boot: SIP:	Mac OS X 10.13.6 17G14042 xnu-4570.71.82.8~1 Intel(R) Core(TM) i5-4258U CPU @ 2.40GHz MacBookPro11,1 / APPLE SSD SD0128F / Not Present Disabled	Controller: Driver Name: Driver Version:	No controller detected! No driver detected! /			

2. You can also click 'Help'→ 'Diagnostic' to enter the diagnostic view.

Controller(1): High	Point v			High Point Technologies, Inc.
Global View	Physical	Logical	Setting Event SHI Help	
Controller			Controller Info	
Rescan	Model N Vendor:	lame:	HighPoint NVMe RAID Controller HighPoint Technologies, Inc.	

3. Click the "Save Logs" button to create the diagnostic file. Note, that this process may take several minutes to complete.

•	localhost:7402 says Are you sure to save the diagn	ostic information?		High Point Technologies, Inc.
Global Vie	ew Physi	Cancel	ок	Help
	Diagr	iostic view	L	
System		Product		
OS: Kernel: CPU: MotherBoard: T2: Disk:	Mac OS X 10.13.6 17G14042 xnu-4570.71.82.8~1 Intel(R) Core(TM) i5-4258U CPU @ 2.40GHz MacBookPro11,1 / APPLE SSD SD0128F	Controller: Driver Name: Driver Version:	N /	o controller detected! o driver detected!
Thunderbolt: Secure Boot: SIP:	/ Not Present Disabled			

4. 'Logs Location' will display the location of the saving path.

	Diagnos	stic View	
System		Product	
OS: Kernel: CPU: MotherBoard: T2: Disk: Thunderbolt: Secure Boot: SIP:	Mac OS X 10.13.6 17G14042 xnu-4570.71.82.8~1 Intel(R) Core(TM) I5-4258U CPU @ 2.40GHz MacBookPro11,1 / APPLE SSD SD0128F / Not Present Disabled	Controller: Driver Name: Driver Version:	No controller detected! No driver detected! /
Logs Location	: /Users/Shared/HighPoint_2021.11.	10_16.45.57.zip	Save Logs

Please submit the log file to our Support Department using our online services: (https://www.highpoint-tech.com/support-and-services).