		Revis	sion Log	
Date	Version	Owner	Approve	Remake
5/14/2020	v1.00	QYT	/	Init version
5/15/2020	v1.01	ARM	/	Added in SSD7202 edits
5/28	V1.02	QYT		Update BootRAID screenshot information
5/28	V1.03	СВ		Added page numbers (word format), update page 19 – refer customer to WebGUI installation

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SSD7202、SSD7103 的驱动程序和管理软件安装指南

这个指南包含了重要的硬件/软件要求、安装和升级过程.以及在 Windows 操作系统上使用 SSD7202 或 SSD7103 NVMe RAID 控制器的故障排除提示

要求

这部分介绍了基础的关于 SSD7202 and SSD7103 PCIe 3.0 NVMe RAID 控制器的硬件和软件要求

UEFI BIOS 设置

这部分介绍了怎样配置您的主板 UEFI 设置以一起使用 SSD7202 和 SSD7103 NVMe RAID 控制器

安装驱动

这部分介绍了 SSD7202 / SSD7103 NVMe RAID 控制器的驱动程序安装、升级和卸载过程

安装管理软件

这部分介绍了如何下载和安装适用于 Windows 操作系统的 SSD7202 / SSD7103 RAID 管理软件套件,下载内容包括 Web RAID 管理界面(WebGUI)和 CLI(命令行界面)

故障排除

如果在安装或使用 SSD7202 和 SSD7103 NVMe RAID 控制器时遇到任何困难,请查阅本节。它包括对常见报告的技术问题的描述和解决方案

附录

SSD7202 和 SSD7103 NVMe RAID 控制器的一系列有用信息和 Web 链接

可启动 RAID 配置的要求

SSD7202 和 SSD7103 控制器支持可启动 RAID 阵列。使用 UEFI RAID 工具配置阵列 后,您可以在 NVMe SSD 上安装 Windows 或 Linux 操作系统。为了配置可引导的 NVMe RAID 阵列,您将需要以下内容:

- 1. **必须安装一个 NVMe SSD** 您必须至少在 SSD7202 或 SSD7103 RAID 控制器中安装 一个 NVMe SSD
- 一个 PCIe 3.0 x8 或 x16 必须将 SSD7202 或 SSD7103 安装到具有 x8 或 x16 通道的 PCIe 3.0 插槽中
- 您的主板必须具有 UEFI BIOS,该 BIOS 具有用于第三方设备(例如 SSD7202 / SSD7103,光盘驱动器和 USB 闪存驱动器)的可选 ROM 设置 如果未正确配置, 系统将无法加载 SSD7000 RAID 控制器,请检查 <u>SSD7202</u>和 <u>SSD7103</u>兼容性列表 以获取推荐的主板
- 4. 安全启动必须禁用 SSD7202 / SSD7103 UEFI 功能尚未经过签名和认证,如果安全 启动主板将无法识别 SSD7000 控制器,您将无法继续安装
- 5. 将光盘驱动器安装到系统中 (例如 DVD-ROM, DVD-RW 或 Blu-Ray 驱动器)
- 6. 准备操作系统安装光盘 (Windows 10 及更高版本 / Windows server 2016 及更高版本、对应的 Linux 发行版) 将选择的操作系统的最新 ISO 映像正式副本下载并刻录到 DVD, 启动系统时光盘驱动器应被插入
- 7. 一个 USB 闪存驱动器——UEFI 软件包和驱动器应该被提取到这个 USB 闪存驱动器的根目录
- 8. 在操作系统安装过程中卸下所有其他驱动器 在此过程中,请确保仅将 SSD7000 控制器,USB 闪存驱动器和光盘驱动器安装到系统中。这包括任何其他 USB 硬盘驱动器、USB 闪存驱动器、记忆棒或 SAS / SATA 驱动器,您可以在成功安装操作系统后重新连接这些驱动器
- 9. 确保所有非 HighPoint 驱动程序被卸载以使 SSD7000 系列 RAID 控制器主管所有 SSD 第 三方软件和制造商提供的驱动程序可能会阻止 SSD7000 正常运行
- 10. 对于 Windows 10 用户,请确定禁用快速启动

UEFI BIOS 设置

不同的主板将提供与 UEFI 相关的不同 BIOS 设置,请参阅主板的用户手册以获取更多信息。本部分提供了两种不同类型的主板 BIOS 菜单的示例

- 1. 例一: 更改UEFI设置(SuperMicro X11DAi-N主板)
 - 1. 启动系统,访问主板BIOS菜单
 - 2. 移动到Boot键然后将"Boot Mode Select"设置为"UEFI";



3. 在"Advanced->PCIe/PCI/PnP Configuration->下,将"CPUx Slot x PCI-E OPROM"改为 "EFI". "x"代表插槽分配。这个示例,SSD7103安装在 "CPU Slot 1"中

Aptio Setup Utilit PCIe/PCI/PnP Configuratio	y – Copyright (C) 2017 n	
PCI Bus Driver Version	A5.01.12	▲ Enables or disables PCIe Slot OPROM option.
PCI Devices Common Settings		
Above 46 Decoding	[Disabled]	
SR-IOV Support	[Disabled]	
MMIO High Base	[56T]	
MMIO High Granularity Size	[256G]	
PCI PERR/SERR Support	[Enabled]	
Maximum Read Request	[Auto]	
MMCFG Base	CPU1 Slot 1 PCI-E ×16	OPROM
VGA Priority Di	sabled	
POI Douisso Ontion Dan Catti 55	gacy	
Ophoand NUME 1 OPPON	1	Select Screen
Onboard NVME 2 OPROM		select item
		+/-: Change Ont
		F1: General Help
CPU1 Slot 2 PCI-E x16 OPROM	[EFI]	F2: Previous Values
CPU2 Slot 3 PCI-E x16 OPROM	[EFI]	F3: Optimized Defaults
CPU2 Slot 4 PCI-E x8 OPROM	[EFI]	F4: Save & Exit
CPU2 Slot 5 PCI-E ×16 OPROM	[EFI]	ESC: Exit
CPU2 Slot 6 PCI-E x8 OPROM	[EFI]	

4. 禁用"Secure Boot",将"Attempt Secure Boot"设置为"Disabled"

	Cotup	Secure Boot activated when
system Mode	setup	Flationin Reg(FK) is en offed,
Secure Boot	Not Active	System mode is User/Deployed
/endor Keys	Active	and CSM function is disabled
Attempt Secure Boot	[Disabled]	
Secure Boot Mode	[Custom]	
SM Support	[Enabled]	

2. 例二: 更改UEFI设置 (ASUS PRIME X299 –DELUXE)

- a. 启动系统,进入主板的 BIOS 菜单
- b. 将"Boot from Storage Devices"设置为"UEFI driver first"

My Favorites	Main	Ai Tweaker	Advanced	Monitor	Boot	Tool	Exit	
- Boot\CSM (Comp	stibility Sup	port Module)						
Compatibility Sup	oport Modul	le Configuration						
Launch CSM				[Enabled			•
Boot Device Co	ntrol			[UEFI and Le	gacy OPRO	м	•
Boot from Net	work Device	5		[Legacy only	la.		•
Boot from Stor	age Devices	5		[UEFI driver	first		•
Boot from PCI	-E/PCI Expan	ision Devices		[Legacy only			•

c. 将"Boot Device Control"设置为"UEFI Only"或"UEFI and Legacy OPROM"

2

Compatibility Support Module Configuration		
Launch CSM	Enabled	•
Boot Device Control	UEFI and Legacy OPROM	•
Boot from Network Devices	Legacy only	•
Boot from Storage Devices	UEFI driver first	•
Boot from PCI-E/PCI Expansion Devices	Legacy only	•

d. 将 "OS Type"设置为"Other OS"

My Favorites	Main	Ai Tweaker	Advanced	Monitor	Boot	Tool	Exit	
← Boot/Secure Boot				and the second second				
Secure Boot state Platform Key (PK)	state			E	nabled nloaded			
OS Type				0	Other OS			•
> Clear Secure Book	i Keys							_
> Key Management								

如何在 Windows 安装 SSD7202/SSD7103 RAID 控制器

步骤一——准备 USB 闪存驱动器:

准备 USB 闪存驱动器时,请确保将 USB 分区格式化为 NTFS 或 FAT32。如果使用了另一个文件 系统,则可能无法正确识别 USB 驱动器,并且该 USB 驱动器不会作为选项出现在主板的 UEFI BIOS 菜单下

步骤二——准备 UEFI 软件包

该软件包必须直接解压缩到可启动 USB 闪存驱动器的根目录中(不要将内容提取到新文件夹中), USB 闪存驱动器的根目录中必须存在以下所有项目:

_UEFI_v1.1.4_19_04_29 >
Туре
File folder
ROM File
EFI File
EFI File
Text Document
NSH File
NSH File

注释: 如果以上内容在根目录利不存在,UEFI 启动设备可能无法被辨识,和/或您将无法创建用 于安装 OS 的阵列。

步骤三——创建 RAID 阵列

a. 此过程假定您已将 NVMe SSD 安装到 SSD7103 控制器中(请参阅步骤 1)

注释:请确保您已使用 NTFS 或 FAT32 文件系统格式化 USB 闪存驱动器

- b. 在主板插入可启动USB闪存驱动器, 启动系统
- c. 主板的 BIOS 屏幕应该显示 NVMe SSD 的信息

```
HighPoint SSD71xx NVMe driver version v1.1.4
Found PLX upstream port (bus 1).
Found PLX upstream port (bus 6).
start scanning devices
Adding HPT VDO-0 SCSI Disk Device (SINGLE) Capacity 250GB BlockSize 512 Bytes
Adding HPT VDO-1 SCSI Disk Device (SINGLE) Capacity 2000GB BlockSize 512 Bytes
Adding HPT VDO-2 SCSI Disk Device (SINGLE) Capacity 250GB BlockSize 512 Bytes
Adding HPT VDO-3 SCSI Disk Device (SINGLE) Capacity 250GB BlockSize 512 Bytes
```

d. 进入主板的 BIOS 设置,从菜单中选择 UEFI: "flash drive"



e. 根据提示输入以下命令来更改分辨率: mode 160 53

FS0:\>	mode					o and the second
Availab	le mo	odes	for co	nsole	output	device.
Col	80	Row	25	*		
Col	80	Row	50			
Col	100	Row	31			
Col	127	Row	33			
FS0:\>	mode	127	33_			

f. 接着输入以下命令进入 RAID 创建实用程序: ArrayCreate.efi

g. 使用以下命令创建数组:

create RAID0

这将使用所有固态硬盘创建一个 RAID0 阵列,并配置为最大容量:

			===========	======		====	=====	
wsical devi	ice lis	st (count	t 4):					
isung SSD 97	70 PRO	512GB-5	\$463NF0K40	9599K,	512040MB (MaxF	ree	OMB),	Normal
sung SSD 97	70 PRO	512GB-5	\$463NF0K41	1087N,	512040MB (MaxF	ree	OMB),	Normal
sung SSD 97	O PRO	512GB-5	\$463NF0K51	2590N,	512040MB (MaxF	ree	OMB),	Norma1
isung SSD 97	O PRO	512GB-9	3463NF0K40	9211V,	512040MB(MaxF	ree	0 MB),	Normal
gical devio	e list	t(count	1):					
RAIDO_0000	4167	(RAIDO)	2048162	B (Stri	pe 512KB), No	rmal		
Samsung SS	D 970	PR0 512	GB					
Samsung SS	D 970	PR0 512	GB					
Samsung SS	D 970	PR0 512	GB					
	070	880 E12	000					
	nysical devi nsung SSD 97 nsung SSD 97 nsung SSD 97 nsung SSD 97 ogical devic RAIDO_0000 1 Samsung SS 2 Samsung SS 3 Samsung SS	nysical device li nsung SSD 970 PRO nsung SSD 970 PRO nsung SSD 970 PRO nsung SSD 970 PRO ogical device lis RAIDO_000041A7 1 Samsung SSD 970 2 Samsung SSD 970 3 Samsung SSD 970	nysical device list(count nsung SSD 970 PRO 512GB-5 nsung SSD 970 PRO 512GB-5 nsung SSD 970 PRO 512GB-5 nsung SSD 970 PRO 512GB-5 ogical device list(count RAIDO_000041A7 (RAIDO), 1 Samsung SSD 970 PRO 512 2 Samsung SSD 970 PRO 512 3 Samsung SSD 970 PRO 512	Nysical device list(count 4): nsung SSD 970 PRO 512GB-S463NF0K40 nsung SSD 970 PRO 512GB-S463NF0K41 nsung SSD 970 PRO 512GB-S463NF0K40 pgical device list(count 1): RAIDO_000041A7 (RAIDO), 2048162M 1 Samsung SSD 970 PRO 512GB 2 Samsung SSD 970 PRO 512GB 3 Samsung SSD 970 PRO 512GB	Nysical device list(count 4): nsung SSD 970 PRO 512GB-S463NFOK409599K, nsung SSD 970 PRO 512GB-S463NFOK411087N, nsung SSD 970 PRO 512GB-S463NFOK512590N, nsung SSD 970 PRO 512GB-S463NFOK409211V, ogical device list(count 1): RAIDO_000041A7 (RAIDO), 2048162MB (Stri 1 Samsung SSD 970 PRO 512GB 2 Samsung SSD 970 PRO 512GB 3 Samsung SSD 970 PRO 512GB	Nysical device list(count 4): nsung SSD 970 PRD 512GB-S463NF0K409599K, 512040MB(MaxF nsung SSD 970 PRD 512GB-S463NF0K411087N, 512040MB(MaxF nsung SSD 970 PRD 512GB-S463NF0K409211V, 512040MB(MaxF nsung SSD 970 PRD 512GB-S463NF0K409211V, 512040MB(MaxF ogical device list(count 1): RAIDO_000041A7 (RAIDO), 2048162MB (Stripe 512KB), No 1 Samsung SSD 970 PRD 512GB 2 Samsung SSD 970 PRD 512GB 3 Samsung SSD 970 PRD 512GB	Nysical device list(count 4): nsung SSD 970 PRO 512GB-S463NFOK409599K, 512040MB(MaxFree nsung SSD 970 PRO 512GB-S463NFOK411087N, 512040MB(MaxFree nsung SSD 970 PRO 512GB-S463NFOK512590N, 512040MB(MaxFree nsung SSD 970 PRO 512GB-S463NFOK409211V, 512040MB(MaxFree pgical device list(count 1): RAIDO_000041A7 (RAIDO), 2048162MB (Stripe 512KB), Normal 1 Samsung SSD 970 PRO 512GB 2 Samsung SSD 970 PRO 512GB 3 Samsung SSD 970 PRO 512GB	Nysical device list(count 4): nsung SSD 970 PRO 512GB-S463NF0K409599K, 512040MB(MaxFree 0MB), nsung SSD 970 PRO 512GB-S463NF0K411087N, 512040MB(MaxFree 0MB), nsung SSD 970 PRO 512GB-S463NF0K512590N, 512040MB(MaxFree 0MB), nsung SSD 970 PRO 512GB-S463NF0K409211V, 512040MB(MaxFree 0MB), ogical device list(count 1): RAIDO_000041A7 (RAIDO), 2048162MB (Stripe 512KB), Normal 1 Samsung SSD 970 PRO 512GB 2 Samsung SSD 970 PRO 512GB 3 Samsung SSD 970 PRO 512GB

h. 现在可以退出实用程序,输入下面的命令: Exit

注释: 有关更多其他命令,请参阅本用户指南的附录 A

步骤四——安装 Windows

- a. 将 Windows 安装 DVD 插入光盘驱动器(DVD / Blu-ray 等)中,重新启动系统
- b. 主板 BIOS 屏幕应该显示以下 RAID 信息:



c. 输入启动列表,选择从 UEFI DVD 开始:

Please select boot device: ↑ and ↓ to move selection ENTER to select boot device ESC to boot using defaults	
UEFI: SanDisk, Partition 1 (59520MB) UEFI: ASUS SDRW-08D2S-U A801 (4888MB)	
SanDisk (59520MB) ASUS SDRW-08D2S-U A801 (4888MB) Enter Setup	

d. 安装 Windows, 在"Where do you want to install Windows?"您应该看到几个可用的 Legacy 磁盘(对于已安装到 SSD7202 / SSD7103 控制器中的每个 SSD)

注释:以下屏幕截图显示了已安装到 SSD7103 控制器中的 4 个 SSD

	Name	Total size	Free space	Туре
P	Drive 0 Unallocated Space	465.8 GB	465.8 GB	
P	Drive 1 Unallocated Space	465.8 GB	465.8 GB	
P	Drive 2 Unallocated Space	465.8 GB	465.8 GB	
-	Drive 3 Unallocated Space	465.8 GB	465.8 GB	
to Bef	resh Relete	Format	🔆 Ngw	
e Bef	resh N Delete	Eormat	₩ Ngw	

e. 点击"Load driver",在弹出窗口点击"Cancel"

Select the driver to install
Load driver
d'instail the device driver for your drive, insert the installation media containing the driver files, and then click OK. Note: The installation media can be a CD, DVD, or USB flash drive.
Browse OK Carcel
Brgwise <u>Rescan</u> <u>Next</u>

f. 接下来,将包含 SSD7202 / SSD7103 驱动程序的 USB 闪存插入主板 USB 插槽,然后单击 "Browse"选择驱动程序文件

HighPoint NVMe	Controller (C:\HighPoint_NVM RAID Controller (C:\HighPoint	e_G5_RAID_Windows_StorPort_ NVMe_G5_RAID_Windows_Stor	v1 2 12 0 19 07 01 Port v1 2 12 0 19 1

g. 加载驱动程序之后,返回"Where do you want to install Windows?"界面,之前的 Legacy 磁盘现在奖杯时别为 RAID 阵列

	Name		Total size	Free space	Туре
60	Drive 0 Unallocated Space		1862.8 GB	1862.8 GB	

h. 分区后,继续并完成 Windows 安装过程

禁用休眠

a. 安装 Windows 后, 启动操作系统并禁用休眠模式。当系统安装在 NVMe RAID 阵列上时,休眠失败。该错误将减慢或阻止启动和禁用睡眠模式

如果您不关闭休眠功能,则可能会遇到以下问题:

- a) 关机时间额外延长 3-5 分钟
- b) 无法正常关闭; 需要手动按主板的电源开关按钮以关闭系统电源

请使用 administrator privileges 通过以下命令(命令提示符实用程序)关闭休 眠状态

#powercfg /h off

Administrator: Command Prompt

Microsoft Windows [Version 10.0.17763.194] (c) 2018 Microsoft Corporation. All rights reserved. C:\Windows\system32>powercfg /h off C:\Windows\system32>

驱动安装

安装设备驱动程序

以下部分讨论了针对不可启动的 NVMe 配置的驱动程序安装。注意,您不需要为可启动的 NVMe RAID 阵列安装驱动程序——可启动配置要求在操作系统安装过程中安装驱动程序

1. 验证 Windows 是否辨认控制器

将 SSD7000 控制器安装到主板后,打开计算机电源启动 Windows 操作系统,然后打开 Device Manager

- A. 展开 Disk drives,此处应显示 SSD7202 / SSD7103 控制器中安装的每个 NVMe SSD
- B. 展开 Other Devices,应该看见一个"RAID Controller"条目,该图标 **基**表示尚未安装驱动
- C. 展开 Storage Controllers,应在 SSD7202 / SSD7103 控制器中安装的每个 NVMe SSD 看到 一个"Standard NVM Express Controller"条目

屏幕截图示例 (SSD7103):



2. 下载设备驱动程序

从控制器的"软件下载"页面下载适合的 SSSD7000 驱动程序. SSD7202: <u>http://highpoint-tech.cn/product-detail7202.html</u>

SSD7103: http://highpoint-tech.cn/product-detail7103.html

3. 安装设备驱动程序

- A. 找到下载的驱动程序并打开文件.
- B. 双击 setup.



注释:如果安装没有开始,则可能需要管理员权限手动开启安装程序,右键单击 setup 从 菜单中选择 Run as Administrator,确认弹出窗口以继续

C. 驱动程序安装完成后,单机 Finish 以继续



D. 重启系统

Windows 重新启动后,请打开 Device Manager 以检查驱动程序的状态。展开 Storage controllers 后单击 HighPoint NVMe RAIDController entry 查看属性,然后单击 Driver 选项卡

屏幕截图示例 (SSD7103)

File Action View Help		
Audio inputs and outputs	HighPoint NVMe RAID Controller Properties	
> 🚺 Bluetooth > 💻 Computer	General Driver Details Events Resources	
> 🛖 Disk drives > 🌄 Display adapters > 👼 Human Interface Devices	HighPoint NVMe RAID Controller	
> 📹 IDE ATA/ATAPI controllers > 🥅 Keyboards	Driver Provider: HighPoint Driver Date: 7/1/2019	
 Mice and other pointing devices Monitors Vetwork adapters 	Driver Version: 1.2.12.0 Digital Signer: Microsoft Windows Hardware Compatibility Publisher	
 Print queues Processors 	Driver Details View details about the installed driver files.	
Software components Software devices Sound, video and game controllers	Update Driver Update the driver for this device.	
 Storage controllers HighPoint NVMe Controller 	Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.	
HighPoint NVMe Controller	Disable Device Disable the device.	
Search HighPoint NVMe Controller Search HighPoint NVMe RAID Controller Search Microsoft Storage Spaces Controller	Uninstall Device Uninstall the device from the system (Advanced).	
> System devices	OK Cancel	
Universal Serial Bus controllers		

注释:请参考 <u>附录 A</u> 以确认您的设备管理器条目与您安装的驱动程序版本相对应

更新设备驱动程序

注释:在尝试更新驱动程序条目之前,请确保将 SSD7202 / SSD7103 安装在主板上

1. 打开 Device Manager 检查确认驱动器版本,展开 Storage controllers 然后单击 HighPoint NVMe RAID Controller entry,查看属性并单击 Driver



2. 下载设备驱动程序

从控制器的"软件下载"网页下载最新的驱动程序 SSD7202: <u>http://highpoint-tech.cn/product-detail7202.html</u>

SSD7103: http://highpoint-tech.cn/product-detail7103.html

3. 更新设备驱动程序

A. 找到驱动程序下载并打开文件



注释:如果更新没有开始,则可能必须使用管理员权限手动启动安装程序,右击 setup 从 菜单选择 Run as Administrator,确认弹出窗口以继续



- E. 重启 Windows
- F. Windows 重新启动后,请打开 Device Manager 以检查驱动程序的状态。展开 Storage controllers 后单击 HighPoint NVMe RAIDController entry 查看属性,然后单击 Driver 选项卡



G. 首先,确保已安装 WebGUI(请参阅第 22 页),然后打开 WebGUI 并确保正确识别 SSD

20 10 0 .

Controller(1): NVMe ~

neip	SHI	Even	Setting	Logical	Physical	Iobal View
erties	je Prope	Sto				Properties
Total Capacity: 2048 GB			ontroller	NVMe RAID Co	el: HighPoint	Host Adapter mode
Configured Capacity: 2048 GB	Ĵ,				1	Controller count:
Free Capacity: 0 GB					1	Enclosure count:
					4	Physical Drive:
					4	Legacy Disk:
		1.0			0	RAID Count:

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卸载设备驱动程序

1. 关闭系统电源,然后从主板上卸下 SSD7202 / SSD7103 RAID 控制器

注释: 在卸载过程中未能从主板上卸下 SSD7000 控制器可能会导致数据丢无论何时卸载驱动程序,Windows都会尝试安装默认的 NVMe支持,这可能会破坏 RAID 配置以及 SSD7000 控制器主管的 SSD 上存储的所有数据

- 2. 打开系统电源并启动 Windows
- 3. 访问 Control Panel 然后选择 Programs → Programs and Features, 单击 HighPoint NVMe RAID Controller Driver entry
- 4. 单击 Uninstall/Change



5. 卸载程序完成后,单击 Finish.



- 6. 重新启动 Windows 以完成卸载过程
- 7. Windows 重启完成后,进入 Device Manager Storage Controllers and Control Panel 确定驱动程序被卸载,如果现在没有显示 HighPoint 条目,则说明驱动程序已成功卸载



安装 HighPoint RAID 管理软件(Web GUI 和 CLI)

HighPoint RAID 管理软件(Web GUI 和 CLI 实用程序)用于配置和监视 SSD7202 / SSD7103 RAID 控制器主管的 NVMe SSD。从 HighPoint 网站下载最新的软件包:

SSD7103: http://highpoint-tech.cn/product-detail7103.html

SSD7202:

http://highpoint-tech.cn/product-detail7202.html

- 1. 解压缩软件包并双击 HighPoint RAID Management 程序以安装软件
- 2. 安装后在桌面上找到 Management 图标,然后双击以启动 WebGUI 界面。

屏幕截图示例 (SSD7202)

	Physical Logical Setting	Event SHI Help
Properties		Storage Properties
ost Adapter mode	l: HighPoint NVMe RAID Controller	Total Capacity: 1000 GB
ontroller count:	1	Configured Capacity: 1000 GB
closure count:	1	Free Capacity: 0 GB
ysical Drive:	2	
egacy Disk:	2	
AID Count:	0	Configured 100.0%

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故障排除

注释:对 SSD7202 / SSD7103 NVMe RAID 控制器进行故障排除时,请确保已满足所有先 决条件后再继续

双击桌面图标后,	WebGUI 将无法启动
°	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. 这个问题的常见原因是驱动器丢失或不当安装,打开 Device Manager 然后在 Storage Controllers 下检查

如果是驱动器正确安装,你应该在 SSD7202/SSD7103 控制器中安装的每个 NVMe SSD 看 见一个 HighPoint NVMe Controller,接下来是单个 HighPoint NVMe RAID Controller entry

🔿 📰 🔄 🛛 🖬 🖳 💺 🗙 📀						_
Audio inputs and outputs	— HighPoint	NVMe	RAID Co	ontroller	Properties	×
Bluetooth		Driver		-		
	General	Driver	Details	Events	Resources	-
Disk drives	A	HighPo	int NIVMe	RAID	optroller	
Display adapters		riigin o		I NAID CO	ond oner	
Human Interface Devices						
DE ATA/ATAPI controllers		Driver F	rovider:	HighF	Point	
> Keyboards		Driver [)ate:	7/1/2	2019	
Mice and other pointing devices		Driver \	lersion:	1.2.1	2.0	
> Monitors		Disital	-	Mierre	ant Windows Handware Comentibility	
> 🗇 Network adapters		Digital	signer.	Publis	sher	
> 🛱 Print queues			-			
> Processors	Drive	er Detail	B	View det	tails about the installed driver files.	
> F Software components		_				
> Software devices	Upda	ate Drive	r	Update t	the driver for this device.	
> 🐐 Sound, video and game controllers	The second se			If the de	vice fails after undating the driver roll	
✓ Storage controllers	Roll B	ack Driv	er	back to	the previously installed driver.	
Sa HighPoint NVMe Controller						
Sa HighPoint NVMe Controller	Disab	le Devic	e	Disable t	the device.	
Sa HighPoint NVMe Controller						
Sa HighPoint NVMe Controller	Unins	tall Devi	ce	Uninstall	I the device from the system (Advanced	0
San HighPoint NVMe RAID Controller						
Sa Microsoft Storage Spaces Controller	-					_
> 🏣 System devices					OK Cancel	

2. 您还应该检查以确保 hptsvr 在 Task Management → Services 下运行,如果 hptsvr 进程 为 Stopped,请右键单击该条目从菜单中选择启动

Processes Performance Ap	pp history	Startup Users Details Services			
Name	PID	Description	Status	Group	
hptsvr		HighPoint RAID Management Service	Stopped		
🔍 xbgm		Xbox Game Monitoring	Sto	Start	
WSearch	6668	Windows Search	Run	Stop	
WMPNetworkSvc		Windows Media Player Network Sha	Sto	Restart	
🔍 wmiApSrv		WMI Performance Adapter	Sto		
Q WinDefend	4656	Windows Defender Antivirus Service	Rur	Open Services	
WdNisSvc	7540	Windows Defender Antivirus Networ	Rur	Search online	
a wbengine		Block Level Backup Engine Service	Sto	Go to details	
Q VSS		Volume Shadow Copy	Stopped		-
🔍 vds		Virtual Disk	Stopped		
Q VaultSvc	768	Credential Manager	Running		
UIDetect		Interactive Services Detection	Stopped		
UevAgentService		User Experience Virtualization Service	Stopped		
C. TrustedInstaller		Windows Modules Installer	Stopped		
CarrieringEngineService		Storage Tiers Management	Stopped		
Sppsvc		Software Protection	Stopped		
Spooler	3436	Print Spooler	Running		
a 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		
Gam Ge	768	Security Accounts Manager	Running		- 3

BSOD (死亡蓝屏)

SSD7202 / SSD7103 在三种情况下可能会发生 BSOD

1. 安装 SSD7202 / SSD7103 时 Windows 显示 BSOD
Vour PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you.
S% complete
Fit use starts as a set possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis fors, all the lower index is the set are possis for all the lower index is the set are possis fors, all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possis for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the set are possible for all the lower index is the lower i

如果您运行的是 Windows 10,请确保禁用任何 Quick Shutdown 功能——在将 SSD7202 / SSD7103 安装到主板或从主板上卸下时,这些功能可能会导致 BSOD,可以通过完全关闭系统电源来避免

怎样关闭 Windows 的快速关机

a. 使用管理员特权在系统中输入 cmd



e. 重启系统然后打开 SSD7202/SSD7103 驱动程序下载

- f. 双击 Setup 重新安装驱动程序,如果 提示您卸载程序,则需要跟随提示操作并重 新启动系统;重新启动后,再次双击 setup 以安装程序
- g. 驱动程序完成安装后,关闭计算机,将 NVMe SSD 连接到 SSD7202 / SSD7103, 然后将其插入主板 PCIe 插槽
- h. 开机,启动系统进入 WebGUI,如果 WebGUI 不能连接则需要再次重新启动
- i. 如果第二次启动失败,请访问我们的在线支持门户并提交支持请求

注释:如果您正在运行 Windows 的服务器版本,并且在启动时遇到 BSOD,请汇总以下 信息: Windows 版本和内部版本号 <u>Memory Dump and System event Log</u>

2. 安装驱动程序时遇到 BSOD:

如果在驱动程序安装期间遇到 BSOD,请汇总以下信息: <u>Memory Dump</u>, <u>INF log</u>, <u>Debug</u> Log, <u>System Event log</u>,并通过我们的在线支持门户网站提交新的支持请求

- 3. 如果 Windows 报告驱动程序安装失败:
 - a) 请汇总以下调试信息: <u>INF log</u>, <u>Debug Log</u>, <u>Device Manager/Storage Controller screen</u> shot, System Event log

注释:如果在安装驱动程序时遇到 BSOD 或错误,请确保未启用任何 Quick Shutdown 选项—— 从主板上卸下 SSD7202 / SSD7103 并将其重新插入时,快速关机可能会导致 BSOD 完全关闭系统电源

控制器和驱动器检测问题

- 如果您的主板或 Windows 无法检测到 SSD7202 / 7103 RAID 控制器或 NVMe SSD,请关闭 系统,然后尝试将 SSD7202 / 7103 移至另一个 PCIe 插槽
- 对 SSD7202 / SSD7103 控制器进行故障排除时,请确保从主板上卸下所有不相关的 NVMe 设备

附录

如何汇总视图日志

如果其它故障排除步骤未能解决问题,将怀疑驱动程序和管理软件无法与 SSD7202 / SSD7103 控制器建立连接。我们会为您提供驱动程序的 Debug 版本,以汇总有关您遇到的问题的信息

要安装调试驱动程序,请遵循标准驱动程序安装过程(参阅 SSD7202 / SSD7103 RAID 控制器用 户指南),安装驱动程序后按照以下步骤操作:

- 1. 从 http://highpoint-tech.cn/product-detail7202.html 下载 DebugView 实用程序
- 2. 解压缩,右键单击该图标,然后以管理员权限运行 DebugView,在 Capture toolbar 工具栏 中选择 Capture Win32, Capture Kernel, Enable Verbose Kernel Output, and Pass



如果实用程序显示"access denied"信息,重命名以下文件:
 C:\Windows\System32\drivers\Dbgv.sys例如重新命名为"Dbgv.sys1", ie 更改文件类型



- 4. 保存 DebugView 打印的信息,并将其发送给我们的支持部门
- 5. 如果需要,我们将为 NVMe RAID Manager 界面提供管理软件信息收集工具

如何汇总 INF 日志:

1. 转到驱动器 C→ Windows→ INF, 找到 setuppapi.dev 和 setupapi.setup 日志

File Home	Share View								^	0
n to Quick Copy P	aste	ath Gopy to •	X De	elete 🕶	New folder	Properties	Open • Edit	Sele	ct all ct none rt selection	
Clipt	board	Orga	inize		New	0	pen	S	elect	
> • 🛧 📒	C:\Windows\INF	1	~	Ö	, Search	INF				
Line	Name	^			Date modifie	d	Туре		Size	,
🖈 Quick access	🔊 sen	sorsservicedriver			3/19/2019 12	:43 PM	Setup Infor	mation	61	KB
Desktop	* 📄 setu	papi.dev.20200429_1701	23		4/29/2020 5:01 PM Text Doc		Text Docur	nent	4,138 1	(B
🕹 Downloads	🖈 📄 setu	ipapi.dev			4/29/2020 5:12 PM Text Docu			ument 243 k		КB
Documents	🖈 📄 setu	papi.offline.20190318_2	15229		3/19/2019 12:52 PM Text Docu			ument 5,667 k		KB
Pictures	💉 📄 seta	ipapi.setup			4/27/2020 9:2	29 PM	Text Docur	nent	91 H	(B
Bandicam	isisr.	aid2			3/19/2019 12	:43 PM	Setup Infor	mation	51	KB
FormatFactor	sisr.	aid4			3/19/2019 12	:43 PM	Setup Infor	mation	41	KB
ronnatractory	📓 Sm	artSAMD			3/19/2019 12	:43 PM	Setup Infor	mation	91	KΒ
J Music	គ្នា smi	disk			3/19/2019 12	:43 PM	Setup Infor	mation	21	CB

INF 日志可用于检查 Windows 系统中已经安装了哪种软件

2. 请访问 Device Manager, Storage Controllers,并检查 HighPoint 条目的属性,单击 Driver Details 并截取屏幕快照——请将该屏幕快照与您为支持案例提交的日志文件一起提交



如何汇总系统日志:

除了 DebugView 日志外,还有系统日志可以帮助我们的支持部门诊断并解决您提交的支持问题。 系统日志通常记录错误、设备故障以及与软件或驱动程序有关的事件,这些信息可以帮助我们的 工程师缩小范围,甚至确定您遇到的问题的根源

系统日志

- 1. 单击桌面左下角的 Windows 按钮, 然后单击搜索
- 2. 输入 Event Viewer, 然后单击图标, 如下所示:



3. 展开 Windows 日志文件夹,然后选择系统

🗢 🄿 🙍 📰 🖬								
Event Viewer (Local)	System Number	er of events: 17,138					Act	ions
Vindows Logs	Level	Date and Time	Source	Event ID	Task C	^	Sys	tem
tindows cogs	(i) Information	7/9/2018 11:06:41 AM	Service	7040	None		6	Open Saved Log
Security	(i) Information	7/9/2018 10:06:37 AM	Kernel	16	None		-	Create Custom View
	(i) 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
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	~	7	Filter Current Log
Subscriptions								Properties
	Event /040, Servio	ce Control Manager				~	00	Find
	General Detai	ls						Saus All Events As
							164	Save All Events As
	The start type	of the Background Intellig	ent Transfer S	ervice servi	ce was changed from der	mand start to		Attach a Task To this L
	auto start.							View

4. 选择 Save All Events as... 保存.evtx 文件一个容易找到的位置

🛃 Event Viewer								_	٥	\times
File Action View Help										
🗢 🔿 🙍 📰 🚺 🗊										
Event Viewer (Local)	System Numbe	er of events: 17,138					Acti	ons		
Custom Views Windows Logs	Level	Date and Time	Source	Event ID	Task C	^	Syst	em		•
Application	(i) Information	7/9/2018 11:06:41 AM	Service	7040	None		6	Open Saved I	Log	
Security	(i) Information	7/9/2018 10:06:37 AM	Kernel	16	None		-	Create Custo	m View	
Setup	(1) Information	7/9/2018 10:06:25 AM	Kernel	11	None		· ·	Import Custo	m View	
💽 System	(i) Information	7/9/2018 10:06:25 AM	Kernel	11	None			import custo		
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	~	7	Filter Current	Log	
Subscriptions							1	Properties		
	Event 7040, Servio	ce Control Manager				×	000			
	General Details							Save All Even	its As	
	The start type auto start.	of the Background Intellig	ent Transfer S	ervice servi	ce was changed from den	nand start to		View		•

汇总 Windows Dump 文件

Windows Dump 文件是快照,显示事件或失败时正在运行的进程。如果可能,找到以下文件并将其上传到您的支持案例中:

- Memory.dmp
- Minidump.dmp

要找到 dump 文件, 请检查 C:\Windows directory and search for Memory.dmp and Minidump.dmp:

