



SSD7000 系列 UEFI ROM 更新指南 (PC)

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概述

本指南介绍如何使用PC平台更新SSD7000系列NVMe阵列卡的UEFI ROM。

前提条件

本节介绍了SSD7000系列NVMe阵列卡的基本硬件和软件要求。

更新 UEFI ROM

本节介绍如何使用PC来更新UEFI ROM。

Troubleshooting故障排除

如果您在刷新SSD7000系列NVMe阵列卡UEFI ROM时遇到任何困难，请参阅本节。其中包括常见技术问题的说明和解决方案。

附录

本节介绍如何为您通过我们的在线支持门户提交的支持案例收集故障排除信息。

前提条件

1. **必须删除NVMe驱动器。** 为避免数据丢失，请从SSD7000系列NVMe阵列卡中删除所有NVMe驱动器。
2. **带x8或x6通道的PCIe 3.0/4.0插槽。** SSD 7202、SSD 7502、SSD 7105、SSD 7505、SSD 7540、SSD 7580A或SSD 7580B必须安装到具有x8或x16通道的PCIe 3.0/4.0插槽中。
3. **主板需要引导到UEFI模式。** 确认主板在UEFI模式下启动。
4. **USB闪存盘：FAT32格式。** 确保USB盘的文件系统是FAT32格式的。

更新 UEFI ROM

步骤 1 准备UEFI ROM 包

1. 将SSD7000系列NVMe阵列卡UEFI包解压缩到USB闪存驱动器(如FAT32)的根目录 (/)，并将USB闪存驱动器插入主板；

请在官方网站上下载UEFI软件。

产品型号	下载链接
SSD7105	http://www.highpoint-tech.cn/product-detail7105.html
SSD7202	http://www.highpoint-tech.cn/product-detail7202.html
SSD7505	http://www.highpoint-tech.cn/product-detail7505.html
SSD7502	http://www.highpoint-tech.cn/product-detail7502.html
SSD7540	http://www.highpoint-tech.cn/product-detail7540.html
SSD7580A	http://www.highpoint-tech.cn/product-detail7580.html
SSD7580B	http://www.highpoint-tech.cn/product-detail7580b.html

SSD7105:

- efi
- 7105uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

SSD7202:

- efi
- 7202uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

SSD7505:

- efi
- 7505uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

SSD7502:

- efi
- 7502uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

SSD7540:

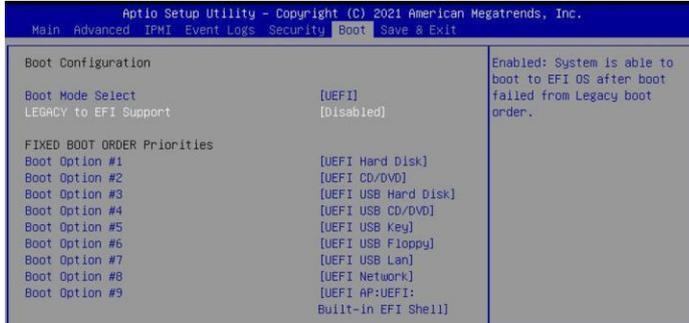
- efi
- 7505uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

SSD7580:

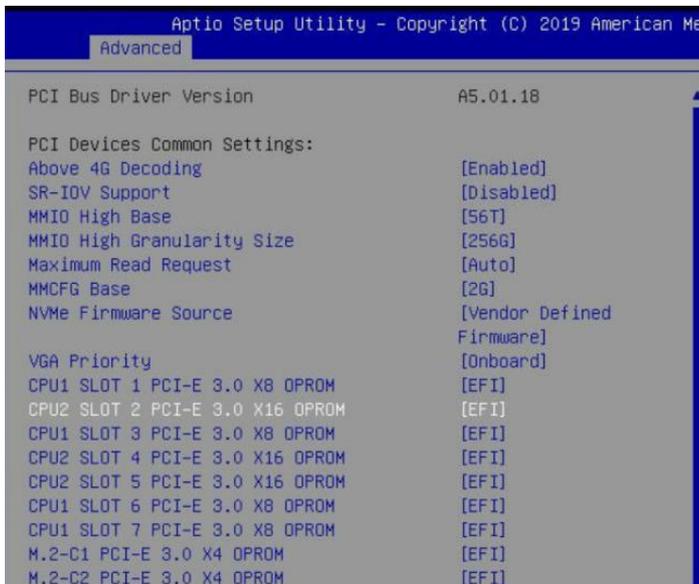
- efi
- 7580uefi.rom
- ArrayCreate.efi
- go.nsh
- load.efi
- README
- startup.nsh

步骤 2 检查系统 EFI 设置

1. 将SSD7000 系列NVMe阵列卡插入主板，接通系统，并进入 BIOS。
2. 更改 UEFI 设置(例如: SuperMicro X11DPi-NT 主板):
 - a. 设置‘启动模式选择’为‘UEFI’:



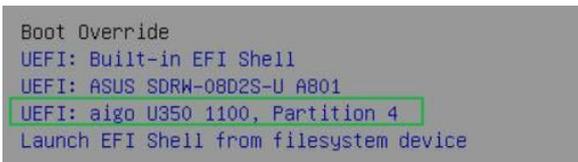
- b. 将SSD7000系列NVMe阵列卡所在的插槽设置为“EFI”。



3. 保存更改并重启。

步骤 3 闪存 UEFI ROM

1. 从UEFI U盘启动，进入UEFI界面;



2. 输入以下命令将UEFI ROM闪存到SSD7000 NVMe阵列卡:
go.nsh

当出现消息“已通过”时，闪存成功。

SSD7105:

```
FS0:\> go.nsh
FS0:\> load.efi 7105uefi.rom
Load Utility for Flash EPROM v1.1.0
(built at Jan 5 2021 13:30:42)

Set flash size to 65K
Found adapter 0x71051103 at PCI 199:0:0
Flash size 0x10400, File size 0x10200
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
FS0:\> _
```

SSD7202:

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS1:\> go.nsh
FS1:\> load.efi 7202uefi.rom
Load Utility for Flash EPROM v1.0.9
(built at Sep 8 2020 10:52:09)

Found adapter 0x72021103 at PCI 28:0:0
Flash size 0x10000, File size 0xe800
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
```

SSD7502:

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS1:\> go.nsh
FS1:\> load.efi 7502uefi.rom
Load Utility for Flash EPROM v1.0.9
(built at Sep 8 2020 10:52:09)

Found adapter 0x75051103 at PCI 69:0:0
Flash size 0x10000, File size 0xe800
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
```

SSD7505:

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS1:\> go.nsh
FS1:\> load.efi 7505uefi.rom
Load Utility for Flash EPROM v1.0.9
(built at Sep  8 2020 10:52:09)

Found adapter 0x75051103 at PCI 69:0:0
Flash size 0x10000, File size 0xe800
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
```

SSD7540:

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS1:\> go.nsh
FS1:\> load.efi 7540uefi.rom
Load Utility for Flash EPROM v1.0.9
(built at Sep  8 2020 10:52:09)

Found adapter 0x75401103 at PCI 75:0:0
Flash size 0x10000, File size 0xe800
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
```

SSD7580:

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS0:\> go.nsh
FS0:\> load.efi 7580uefi.rom
Load Utility for Flash EPROM v1.1.0
(built at Jan  5 2021 13:30:42)

Found adapter 0x75801103 at PCI 145:0:0
Flash size 0x10000, File size 0xe800
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing .....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
FS0:\> _
```

3. 重启以完成更新过程。

故障排除

找不到任何支持的主机适配器

当使用“go.nsh”命令时，该过程没有启动，并显示“没有找到支持的主机适配器”的消息：

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS1:\> go.nsh
FS1:\> load.efi 7103uefi.rom
Load Utility for Flash EPROM v1.0.9
(built at Sep 8 2020 10:52:09)
No supporting host adapter is found.
FS1:\> _
```

解决方案：

关闭系统，将SSD7000移到另一个PCIe插槽，并重复闪存过程。如果问题仍然发生，请参考附录进行收集。

UEFI实用程序报告没有检测到受支持的控制器

1. 从UEFI设备启动时，驱动器会在旧的启动后加载UEFI BIOS。输入

ArrayCreate.efi以创建RIAD。UEFI实用程序报告没有检测到受支持的控制器。

```
Shell> echo -off
Enter go.nsh to flash the UEFI rom.
FS0:\> load.efi 7505uefi.rom
Load Utility for Flash EPROM v1.1.0
(built at Jan 5 2021 13:30:42)

Found adapter 0x75051103 at PCI 139:0:0
Flash size 0x10000, File size 0xee00
Offset address 0x20000
EPROM Vendor: WINBOND W25X40BV
Erasing ....Succeeded
Flashing ....

Flashing Success (total retry 0)

Verifying ....

Passed !
FS0:\> ArrayCreate.efi
Highpoint RAID utility for UEFI (version: 20200306)
No supported controller detected.
```

注意：如果不能成功加载，则我们的UEFI rom与当前的UEFI环境不兼容。

2. 然后在UEFI中输入加载程序xxx.rom。根据这个命令的输出，我们可以确定我们的UEFI驱动程序是否与您的主板兼容，如果可以手动加载，这意味着BIOS设置不允许加载第三方ROM文件。

```
No supported controller detected.
FS0:\> loadpcirom 750Suefi.rom
Image load result: Success
HighPoint NVMe RAID driver version v1.1.13
[81 00 ] SSD7505 found(0).
[ 00] device found (PCI address 85:00:00).
[ 01] device found (PCI address 86:00:00).
[ 02] device found (PCI address 87:00:00).
[ 03] device found (PCI address 88:00:00).
Adding HPT VD0-0 SCSI Disk Device (RAID0) Capacity 8001GB BlockSize 512 Bytes
FS0:\> ArrayCreate.efi
Highpoint RAID utility for UEFI (version: 20200306)
==== Controller information:
      Vendor: HighPoint Technologies, Inc.
      Product: SSD7505 (7505)

==== Physical device list(count 4):
1/1 Samsung SSD 980 PRO 2TB-S69ENGONC00191X, 2000313MB(MaxFree 0MB), Normal
1/2 Samsung SSD 980 PRO 2TB-S69ENGONC00197M, 2000313MB(MaxFree 0MB), Normal
1/3 Samsung SSD 980 PRO 2TB-S69ENGONC00194K, 2000313MB(MaxFree 0MB), Normal
1/4 Samsung SSD 980 PRO 2TB-S69ENGONC00149T, 2000313MB(MaxFree 0MB), Normal

==== Logical device list(count 1):
1 [VD0] RAID_0_1 (RAID0), 8001255MB (Stripe 512KB), Normal
  1/1 Samsung SSD 980 PRO 2TB
  1/2 Samsung SSD 980 PRO 2TB
  1/3 Samsung SSD 980 PRO 2TB
  1/4 Samsung SSD 980 PRO 2TB
-----
>>> Please specify command to execute:
<<<
_
```

附录

正在收集SSD7000系列UEFI信息

1. 将SSD7000系列NVMe阵列卡UEFI包解压缩到USB闪存盘的根目录 (/)，并将USB闪存盘插入PC。
2. 确保SSD7000 系列安装在一个具有 PCIe 3.0/4.0 x8 或x16 插槽中;
3. 从UEFI U盘驱动器启动，并进入UEFI界面;
4. 在命令提示符下，键入以下命令并按Enter键:

drivers

```
FS0:\> drivers
```

此时将显示以下信息:

```
141 0000000A 0 N N 1 0 FAT File System Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(361576FE-B6B7-44C3-AF35-6BC705C02B1F)
142 0000000A 0 N N 2 0 ISCSI Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(66C0DF93-4972-4597-8AF9-A35AE403725F)
143 0000000A 0 N N 2 0 ISCSI Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(0167C0C4-00F7-4F21-A3EF-9E64B7C0CE8B)
146 0000000A 7 N N 0 0 Scsi Disk Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(0466E322-3740-40CE-A062-R01720E09A95)
148 0000000B 7 N N 0 0 Intel(R) VROC with VMD Technology 6 Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(117828F1-0A7D-4BC1-8B58-9A954FED5121)
148 00000001 7 N Y 0 0 Volume Management Device Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(217828C1-0A75-5BC1-7B58-91954FED0101)
14C 0001007F 7 N Y 0 0 Intel(R) DCPMM 1.0.0.3455 Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(5038F34E-0774-47A0-A5EF-4B94F1A430A)
14D 0001007F 7 N Y 0 0 Intel(R) DCPMM 1.0.0.3455 HII Drive Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(5038E34E-0774-47A0-A5EF-4B94F1A430A)
1B4 00000010 7 N N 0 0 AMI CSM Block I/O Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(25ACF158-0061-4E64-9A49-55851E9A26C7)
1B5 00000024 7 N N 0 0 BIOS [INT10] Video Driver Fv(SD60F367-A505-419A-859E-2A4FF6C6A6
E5)/FvFile(29DF55F8-B675-4F5D-8F2F-B07A83CFD063)
1B5 00000010 7 N N 0 0 null string
1FA 00009803 8 N N 1 1 nSPeED Graphics Driver PciRoot(0x0)/Pci(0x1C,0x5)/Pci(0x0,0x0)
/pci(0x0,0x0)/MemoryMapped(0x3,0x64272018,0x6427CA98)
354 02040500 8 N Y 1 1 Intel(R) 40GB 2.4.05 PciRoot(0x1)/Pci(0x0,0x0)/Pci(0x0,0x0)
/Pci(0x3,0x0)/Pci(0x0,0x0)/Offset(0x11038,0x341FF)
355 02040500 8 N Y 1 1 Intel(R) 40GB 2.4.05 PciRoot(0x1)/Pci(0x0,0x0)/Pci(0x0,0x0)
/Pci(0x3,0x0)/Pci(0x0,0x1)/Offset(0x11038,0x341FF)
355 0000FFFF 7 N N 0 0 HighPoint SSD7kxx Name driver PciRoot(0x9)/Pci(0x0,0x0)/Pci(0x0,0x0)
/Pci(0x11,0x0)/Pci(0x0,0x0)/Pci(0x3,0x0)/Pci(0x0,0x0)/Offset(0x98,0xF0FF)
FS0:\>
```

5. 使用以下命令保存在屏幕上显示的驱动程序信息:

drivers > drivers.txt

```
FS0:\> drivers > drivers.txt
```

它将把驱动程序的日志保存到USB驱动器，作为文件“**drivers.txt**”。

6. 在命令提示符下，键入以下命令并按Enter键:

pci

```
FS0:\> pci
```

此时将显示以下信息：

```
00 07 05 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2095 Prog Interface 0
00 07 05 04 ==> Base System Peripherals - PIC
Vendor 8086 Device 2096 Prog Interface 0
00 07 0E 00 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2098 Prog Interface 0
00 07 0E 01 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2099 Prog Interface 0
00 07 0E 00 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2098 Prog Interface 0
00 07 0E 01 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2099 Prog Interface 0
00 07 12 00 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 204C Prog Interface 0
00 07 12 01 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 204D Prog Interface 0
00 07 12 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 204E Prog Interface 0
00 07 15 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2088 Prog Interface 0
00 07 15 01 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2088 Prog Interface 0
00 07 16 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2010 Prog Interface 0
00 07 16 01 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2088 Prog Interface 0
00 07 16 04 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2010 Prog Interface 0
00 07 16 05 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2088 Prog Interface 0
```

7. 使用以下命令保存屏幕上的pci信息：

pci > pci.txt

```
FS0:\> pci > pci.txt
```

这将把pci的日志保存到USB引导驱动器中，作为文件“**pci.txt**”。

8. 您现在可以检查保存到USB闪存盘中的drivers.txt和pci.txt的内容。下面文件中以绿色突出显示的项目表明SSD7000系列已被识别，驱动程序已正常加载：

SSD7105:

drivers.txt

```
1A3 0000000A ? - - - MTFTP6 Network Service Driver Mtfoot6Dxe
1A6 0000000A D - - 2 - FAT File System Driver Fat
1A7 0000000A ? - - - SCSI Bus Driver ScsiBus
1A8 0000000A ? - - - Scsi Disk Driver ScsiDisk
1A9 0000000A ? - - - TcpsDxe TcpsDxe
1AA 00000001 D - - 1 - SMCI Redfish HI USB CDC-RNDIS Drive SmcRedfishHiUsbCdcRndisDriver
1AB 00000001 B - - 1 1 SMCI USB UNDI Driver SmcUsbUndiDriver
1B7 00000010 ? - - - AMI CSM Block I/O Driver CsmBlockIo
1B8 00000024 B - - 1 1 BIOS[INT10] Video Driver CsmVideo
1B9 00000010 ? - - - <null string>
22D 00000011 D - - 4 - HighPoint NVMe RAID driver v1.1.13 Offset(0x98,0x101FF)
```

pci.txt

```
00 C5 00 00 ==> Mass Storage Controller - Non-volatile memory subsystem
Vendor 1179 Device 0116 Prog Interface 2
00 C6 00 00 ==> Mass Storage Controller - Non-volatile memory subsystem
Vendor 1179 Device 0116 Prog Interface 2
00 C7 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7105 Prog Interface 0
00 C8 00 00 ==> Non-Essential Instrumentation - Non-Essential Instrumentation Function
Vendor 1022 Device 148A Prog Interface 0
00 C8 00 02 ==> Encryption/Decryption Controllers - Other Encrypt/Decrypt
```

SSD7202:

drivers.txt:

```

112 00000000 ? N N 0 0 IP4 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(9F81A1F3-3871-4324-B39A-745CB8015FFF)
113 00000000 ? N N 0 0 MFTFP4 Network Service Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(DC3641B8-2FAB-4ED3-BC1F-F962A034548)
114 00000000 ? N N 0 0 UDP Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(6D6963AB-9060-4A65-A7CA-BD40E5D6AF2B)
115 00000000 ? N N 0 0 IP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5BEDB5CC-D830-4EB2-8742-2D4CC9B54F2C)
116 00000000 ? N N 0 0 UDP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(D912C78C-F098-4367-92BA-E911083780E)
117 00000000 ? N N 0 0 DHCP6 Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(95E3669D-34BE-4775-A651-7E4A1B69D89E)
118 00000000 ? N N 0 0 MFTFP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(99F03899-9808-4900-ABD3-3219D0FF41E)
11B 0000000A D N N 2 0 FAT File System Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(961578FE-B687-44C3-AF35-68C705CD281F)
11C 00000000 ? N N 0 0 iSCSI Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(86CDDF93-4872-4597-8AF9-A35AE4D3725F)
11D 00000000 ? N N 0 0 iSCSI Driver
11F 00000000 ? N N 0 0 SCSI Bus Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0167CC4A-D0F7-4F21-A3EF-9E6487CDE8B)
120 00000000 ? N N 0 0 Scsi Disk Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0A66E322-3740-4CCE-A062-BD172CECA35)
124 00010092 ? N Y 0 0 Intel(R) DCMM 1.0.0.3474 Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038E34E-0774-47A0-A5EF-4B94AF1A43DA)
125 00010092 ? N Y 0 0 Intel(R) DCMM 1.0.0.3474 HII Drive Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038E34E-0774-47A0-A5EF-4B94AF1A43DA)
182 00000010 ? N N 0 0 AMI CSM Block I/O Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(25ACF158-D061-4E64-9A49-55851E9A26C7)
183 00000024 B N N 1 1 BIOS[INT10] Video Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(29CF55F8-B675-4F5D-8F2F-B87A3EFC0D63)
184 00000010 ? N N 0 0 <null string>
2E7 00000011 ? N N 0 0 HighPoint NVMe RAID driver v1.1.11 PciRoot(0x1)/Pci(0x0,0x0)/Pci(0x0,0x0)/Pci(0x10,0x0)/Pci(0x0,0x0)/Offset(0x98,0xE7FF)
    
```

pci.txt:

```

Vendor 10B5 Device 8747 Prog Interface 0
00 19 08 00 ==> Bridge Device - PCI/PCI bridge
Vendor 10B5 Device 8747 Prog Interface 0
00 19 09 00 ==> Bridge Device - PCI/PCI bridge
Vendor 10B5 Device 8747 Prog Interface 0
00 19 10 00 ==> Bridge Device - PCI/PCI bridge
Vendor 10B5 Device 8747 Prog Interface 0
00 19 11 00 ==> Bridge Device - PCI/PCI bridge
Vendor 10B5 Device 8747 Prog Interface 0
00 1C 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7202 Prog Interface 0
00 1D 00 00 ==> Mass Storage Controller - Non-volatile memory subsystem
Vendor 1B81 Device 5016 Prog Interface 2
00 3A 05 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2034 Prog Interface 0
00 3A 05 02 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2035 Prog Interface 0
00 3A 05 04 ==> Base System Peripherals - PIC
Vendor 8086 Device 2036 Prog Interface 20
    
```

SSD7502:

drivers.txt:

```

110 00000000 ? N N 0 0 DNS Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(94734718-98BC-47F8-96A5-EF7A5AE6A2AD)
111 00000000 ? N N 0 0 DHCP Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(9F81A1F3-3871-4324-B39A-745CB8015FFF)
112 00000000 ? N N 0 0 IP4 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(DC3641B8-2FAB-4ED3-BC1F-F962A034548)
113 00000000 ? N N 0 0 MFTFP4 Network Service Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(6D6963AB-9060-4A65-A7CA-BD40E5D6AF2B)
114 00000000 ? N N 0 0 UDP Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5BEDB5CC-D830-4EB2-8742-2D4CC9B54F2C)
115 00000000 ? N N 0 0 IP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(D912C78C-F098-4367-92BA-E911083780E)
116 00000000 ? N N 0 0 UDP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(95E3669D-34BE-4775-A651-7E4A1B69D89E)
117 00000000 ? N N 0 0 DHCP6 Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(99F03899-9808-4900-ABD3-3219D0FF41E)
118 00000000 ? N N 0 0 MFTFP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(961578FE-B687-44C3-AF35-68C705CD281F)
11C 00000000 ? N N 0 0 iSCSI Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(86CDDF93-4872-4597-8AF9-A35AE4D3725F)
11D 00000000 ? N N 0 0 iSCSI Driver
11F 00000000 ? N N 0 0 SCSI Bus Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0167CC4A-D0F7-4F21-A3EF-9E6487CDE8B)
120 00000000 ? N N 0 0 Scsi Disk Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0A66E322-3740-4CCE-A062-BD172CECA35)
124 00010092 ? N Y 0 0 Intel(R) DCMM 1.0.0.3474 Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038E34E-0774-47A0-A5EF-4B94AF1A43DA)
125 00010092 ? N Y 0 0 Intel(R) DCMM 1.0.0.3474 HII Drive Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038E34E-0774-47A0-A5EF-4B94AF1A43DA)
182 00000010 ? N N 0 0 AMI CSM Block I/O Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(25ACF158-D061-4E64-9A49-55851E9A26C7)
183 00000024 B N N 1 1 BIOS[INT10] Video Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(29CF55F8-B675-4F5D-8F2F-B87A3EFC0D63)
184 00000010 ? N N 0 0 <null string>
2EE 00000011 B N N 1 0 HighPoint NVMe RAID driver v1.1.12 PciRoot(0x2)/Pci(0x0,0x0)/Pci(0x0,0x0)/Pci(0x0,0x0)/Pci(0x0,0x0)/Pci(0x14,0x0)/Pci(0x0,0x0)/Offset(0x98,0xE7FF)
    
```

pci.txt:

```

00 40 00 00 ==> Mass Storage Controller - Non-volatile memory subsystem
Vendor 1B81 Device 5016 Prog Interface 2
00 43 00 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 44 14 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 44 15 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 45 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7505 Prog Interface 0
00 5D 02 00 ==> Bridge Device - PCI/PCI bridge
Vendor 8086 Device 2032 Prog Interface 0
00 5D 05 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2034 Prog Interface 0
00 5D 05 02 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2035 Prog Interface 0
00 5D 05 04 ==> Base System Peripherals - PIC
Vendor 8086 Device 2036 Prog Interface 20
00 5D 0E 00 ==> Data Acquisition & Signal Processing Controllers - Performance Counters
Vendor 8086 Device 2058 Prog Interface 0
    
```

SSD7505:

drivers.txt:

```

110 00000000 ? N N 0 0 DNS Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(94734718-08BC-47F8-96A5-EE7A5AE6A2AD)
111 0000000A ? N N 0 0 DHCP Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(9FB1A1F3-3B71-4324-B39A-745CB0015FFF)
112 0000000A ? N N 0 0 IP4 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(DC3641B8-2FAB-4ED3-BC1F-F9962A03454B)
113 0000000A ? N N 0 0 HTTP4 Network Service Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(606963A8-906D-4A65-A7CA-8D40E5D6AF2B)
114 0000000A ? N N 0 0 UDP Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(58ED95CC-0830-4EB2-8742-2D4CC3954F2C)
115 0000000A ? N N 0 0 IP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0912C7BC-F098-4367-92BA-E911083780E)
116 0000000A ? N N 0 0 UDP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(95E3669D-34BE-4775-A651-7EA41869D89E)
117 0000000A ? N N 0 0 DHCP6 Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(99F03899-98D8-49DD-A8D3-3219D0FF41E)
118 0000000A ? N N 0 0 MTFTP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(961578FE-B687-44C3-AF35-68C705CD2B1F)
118 0000000A D N N 2 0 FAT File System Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(86CDD9F93-4872-4597-8AF9-A35AE403725F)
11D 0000000A ? N N 0 0 SCSI Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0167CCCA-D0F7-4F21-A3EF-9E6487CDE88)
11F 0000000A ? N N 0 0 SCSI Bus Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(0A66E322-3740-4CCE-AD62-8D172CECCA35)
120 0000000A ? N N 0 0 Scsi Disk Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038F34E-0774-47A0-A5EF-4B94AF1A43DA)
124 00010D92 ? N Y 0 0 Intel(R) DCPMM 1.0.0.3474 Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038F34E-0774-47A0-A5EF-4B94AF1A43DA)
125 00010D92 ? N Y 0 0 Intel(R) DCPMM 1.0.0.3474 HII Drive Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(5038F34E-0774-47A0-A5EF-4B94AF1A43DA)
182 00000010 ? N N 0 0 AMI CSM Block I/O Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(25ACF158-DD61-4E64-9A49-58581E9A26C7)
183 00000024 B N N 1 1 BIOS[INT10] Video Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FES)/FvFile(29CF55F8-B675-4F5D-8F2F-B87A3EFD063)
184 00000010 ? N N 0 0 <null string>
2EF 00000011 B N N 1 2 HighPoint NVMe RAID driver v1.1.11 PciRoot(0x2)/Pci(0x0,0x0)/Pci(0x0,0x0)/Pci(0xC,0x0)/Pci(0x0,0x0)/Pci(0x14,0x0)
/Pci(0x0,0x0)/Offset(0x98,0xE7FF)
    
```

pci.txt:

```

Vendor 1000 Device C010 Prog Interface 0
00 44 14 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 44 15 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 45 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7505 Prog Interface 0
00 47 00 00 ==> Mass Storage Controller - Other mass storage controller
Vendor 1000 Device C010 Prog Interface 0
00 5D 02 00 ==> Bridge Device - PCI/PCI bridge
Vendor 8086 Device 2032 Prog Interface 0
00 5D 05 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2034 Prog Interface 0
00 5D 05 02 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2035 Prog Interface 0
00 5D 05 04 ==> Base System Peripherals - PIC
Vendor 8086 Device 2036 Prog Interface 20
    
```

SSD7540:

drivers:

```

115 0000000A ? - - - IP6 Network Service Driver Ip6Dxe
116 0000000A ? - - - UDP6 Network Service Driver Udp6Dxe
117 0000000A ? - - - DHCP6 Protocol Driver Dhcp6Dxe
118 0000000A ? - - - MTFTP6 Network Service Driver Mtfp6Dxe
118 0000000A D - - 2 - FAT File System Driver Fat
11C 0000000A ? - - - SCSI Driver IScsiDxe
11D 0000000A ? - - - SCSI Driver IScsiDxe
11F 0000000A ? - - - SCSI Bus Driver ScsiBus
120 0000000A ? - - - Scsi Disk Driver ScsiDisk
124 00010D92 ? - X - Intel(R) DCPMM 1.0.0.3474 Driver Fvfile(5038F34E-0774-47A0-A5EF-4B94AF1A43DA)
125 00010D92 ? - X - Intel(R) DCPMM 1.0.0.3474 HII Drive Fvfile(5038F34E-0774-47A0-A5EF-4B94AF1A43DA)
182 00000010 ? - - - AMI CSM Block I/O Driver CsmBlockIo
183 00000024 B - 1 1 BIOS[INT10] Video Driver CsmVideo
184 00000010 ? - - - <null string>
2FB 00000011 D - - 8 - HighPoint NVMe RAID driver v1.1.11 Offset(0x98,0xE7FF)
    
```

pci.txt:

```

00 44 08 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 44 0C 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 49 00 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 4A 14 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 4A 15 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 4B 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7540 Prog Interface 0
00 4D 00 00 ==> Mass Storage Controller - Other mass storage controller
Vendor 1000 Device C010 Prog Interface 0
00 5D 02 00 ==> Bridge Device - PCI/PCI bridge
Vendor 8086 Device 2032 Prog Interface 0
00 5D 05 00 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2034 Prog Interface 0
00 5D 05 02 ==> Base System Peripherals - Other system peripheral
Vendor 8086 Device 2035 Prog Interface 0
00 5D 05 04 ==> Base System Peripherals - PIC
Vendor 8086 Device 2036 Prog Interface 20
    
```

SSD7580A:

drivers:

```

197 0000000A D N N 2 0 HttpDxe
198 00000000 D N N 3 0 DNS Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(B219E140-DFFC-11E3-B956-0022681E6906)
199 00000000 D N N 2 0 DNS Network Service Driver
19C 0000000A D N N 3 0 DHCP Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(94734718-0B8C-47FB-96A5-EE7A5AE6A2AD)
19D 0000000A B N N 7 34 IP4 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(9FB1A1F3-3B71-4324-B39A-745CBB015FF6)
19E 0000000A B N N 4 4 MTFTP4 Network Service Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(DC3641B8-2FA8-4ED3-BC1F-F9962A034548)
19F 0000000A B N N 20 34 UDP Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(6D6963AB-906D-4A65-A7CA-BD40E5D6AF2B)
1A0 0000000A B N N 4 24 IP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(5BEDB5CC-D830-4EB2-8742-2D4CC9B54F2C)
1A1 0000000A B N N 14 24 UDP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(D912C7BC-F098-4367-92BA-E911083C7B0E)
1A2 0000000A B N N 2 2 DHCP6 Protocol Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(95E3669D-34BE-4775-A651-7EA41B69D89E)
1A3 0000000A B N N 2 2 MTFTP6 Network Service Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(99F03B99-98D8-49DD-ABD3-3219D0FFE41E)
1A6 0000000A D N N 2 0 FAT File System Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(961578FE-B687-44C3-AF35-68C705CD2B1F)
1A7 0000000A D N N 2 0 iSCSI Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(86CDDF93-4872-4597-8AF9-A35AE4D3725F)
1A8 0000000A D N N 2 0 iSCSI Driver
1AA 0000000A ? N N 0 0 SCSI Bus Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(0167CCC4-D0F7-4F21-A3EF-9E64B7CDCE8B)
1AB 0000000A ? N N 0 0 Scsi Disk Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(0A66E322-3740-4CCE-AD62-BD172CECCA35)
1AC 0000000A D N N 1 0 TcpsDxe Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(9FE6C519-86DA-49DC-8725-C2594628AD46)
1AE 00000001 D N N 1 0 SMCI Redfish HI USB CDC-RNDIS Drive Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(E7104484-0BD7-4448-9133-BB323D5BE85B)
1AF 00000001 B N N 1 1 SMCI USB UNDI Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(C0C2A885-93D8-44C5-84CB-28862A52E197)
1B9 00000010 ? N N 0 0 AMI CSM Block I/O Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(25ACF158-DD61-4E64-9A49-55851E9A26C7)
1BA 00000024 ? N N 0 0 BIOS[INT10] Video Driver Fv(5C60F367-A505-419A-859E-2A4FF6CA6FE5)/FvFile(29CF55F8-B675-4F5D-8F2F-B87A3ECD063)
1BB 00000010 ? N N 0 0 <null string>
1E2 00011001 B N N 1 1 ASPEED Graphics Driver PciRoot(0x1)/Pci(0x3,0x4)/Pci(0x0,0x0)/Pci(0x0,0x0)/Offset(0x80E0,0x113FF)
235 00140E1B B Y Y 1 1 Broadcom Gigabit Ethernet Driver PciRoot(0x1)/Pci(0x3,0x6)/Pci(0x0,0x0)/Offset(0xF834,0x287FF)
236 00140E1B B Y Y 1 1 Broadcom Gigabit Ethernet Driver PciRoot(0x1)/Pci(0x3,0x6)/Pci(0x0,0x1)/Offset(0xF834,0x287FF)
237 00000011 ? N N 0 0 HighPoint NVMe RAID driver v1.1.11 PciRoot(0x2)/Pci(0x3,0x1)/Pci(0x0,0x0)/Pci(0xC,0x0)/Pci(0x0,0x0)/Pci(0x14,0x0)/Pci(0x0,0x0)/Offset(0x98,0xE7FF)
    
```

pci.txt:

```

00 8A 0C 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 8F 00 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 90 14 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 90 15 00 ==> Bridge Device - PCI/PCI bridge
Vendor 1000 Device C010 Prog Interface 0
00 91 00 00 ==> Mass Storage Controller - RAID controller
Vendor 1103 Device 7580 Prog Interface 0
00 93 00 00 ==> Mass Storage Controller - Other mass storage controller
Vendor 1000 Device C010 Prog Interface 0
00 94 00 00 ==> Non-Essential Instrumentation - Non-Essential Instrumentation Function
Vendor 1022 Device 148A Prog Interface 0
00 94 00 02 ==> Encryption/Decryption Controllers - Other Encrypt/Decrypt
Vendor 1022 Device 1498 Prog Interface 0
00 95 00 00 ==> Non-Essential Instrumentation - Non-Essential Instrumentation Function
Vendor 1022 Device 1485 Prog Interface 0
00 95 00 02 ==> Encryption/Decryption Controllers - Other Encrypt/Decrypt
Vendor 1022 Device 1498 Prog Interface 0
    
```

如果未能更新SSD7000 系列 UEFI ROM, 请使用我们的在线支持门户提交问题

<http://highpoint.mikecrm.com/vr1DAsz>, 并上传 **driver.txt** & **pci.txt** 信息。