HighPoint Technologies, Inc.

HighPoint NA381TB3

4U 24 bay (3.5" / 2.5") Thunderbolt™ 3 Storage and PCIe Expansion

User Manual

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1. Overview

Based on the latest Thunderbolt 3 technology and PCIe architecture, the creative, innovative design of HighPoint NA381TB3 features RAID level protection and high-performance with PCIe Gen3 expansion ability to Thunderbolt Mac through the blazing-fast Thunderbolt interface. Moreover, the Thunderbolt 3 HighPoint NA381TB3 enclosure accommodates SAS/SATA 6G/3Gbps hard drives and can be installed with professional PCIe cards for application.

2. Package Checklist

Before installing the unit, verify the package contains the following items.

A Enclosure x 1

B HDD Tray x 24 (installed in chassis)

C Thunderbolt 3 cable (2 meters) x 1

D Internal data cable × 6

E Power cord x 2

F HDD mounting screw

G Key for HDD tray x 2

Notify your sales representative if any of the above items is missing or damaged.

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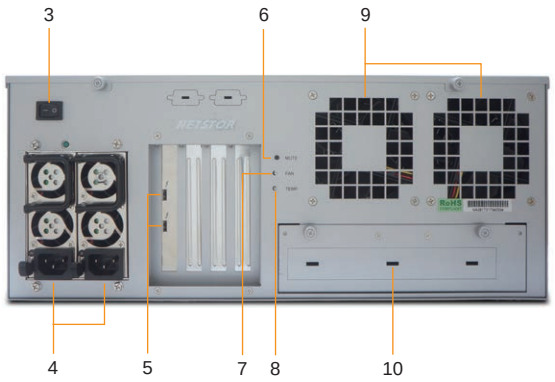
3. Panel Layout

1. HDD Power LED
- White - Power On Indicator

2. HDD Status LED
- Flash Blue - HDD Accessing Indicator, Red - HDD Failure Indicator



3. PSU power button
- “I” for enable, “0” for disable

4. Power cord receptacles

5. Thunderbolt 3 Connectors
- Connecting Thunderbolt 3 cables to host and downstream device

6. Mute Button
- Reset for buzzer beeping

7. Fan Status LED
- Normal – Green
- Failure – Red (too slow RPM or stop)

8. Temperature LED
- Normal – Green
- Over 50°C – Red

9. Cooling fans

10. Swappable integrated plate drawer for Mac mini/Mac mini Server

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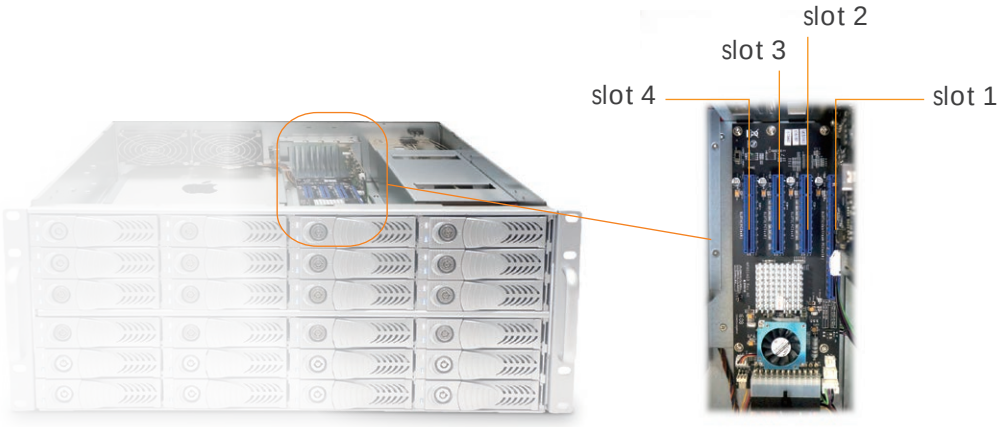
4. Hardware Configuration



Slot 1 : Thunderbolt 3 target card (already fixed in the chassis)

Slot 2 : PCIe x8 slot (open-type; supports PCIe card x16/x8/x4/x1)
RAID card is recommended to be installed in this slot as it's closest to backplane's connectors.

Slot 3 : PCIe x8 slot (closed-type; supports PCIe card x8/x4/x1)

Slot 4 : PCIe x8 slot (open-type; supports PCIe card x16/x8/x4/x1)

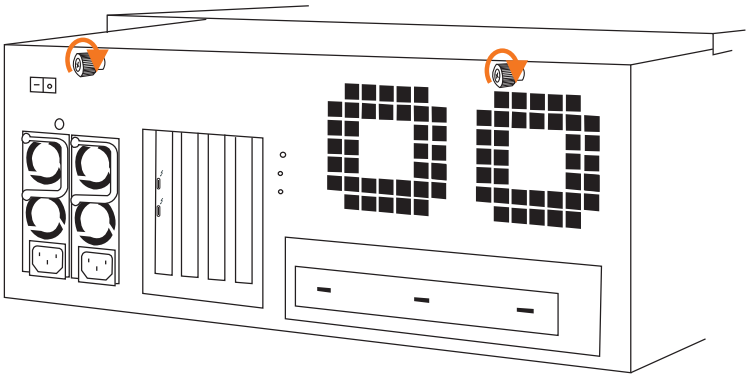
Ideal for HighPoint RAID host bus adapters (Sold Separately):
1. RocketRAID 2782 32-Channel 6Gb/s SAS/SATA RAID HBA
2. RocketRAID 2760A 24-Channel 6Gb/s SAS/SATA RAID HBA

5. Building Up Procedures

5.1 PCIe Card Installation

1. Place HighPoint NA381TB3 chassis on a level surface of a stable table.

2. Open the chassis by removing the top cover.



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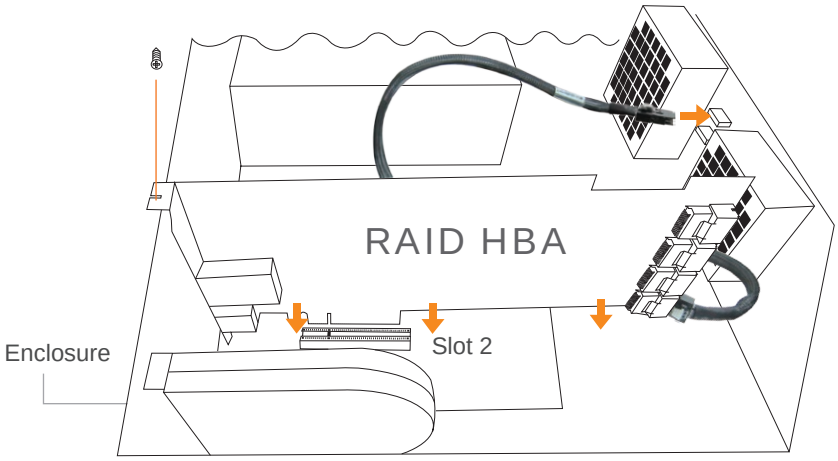
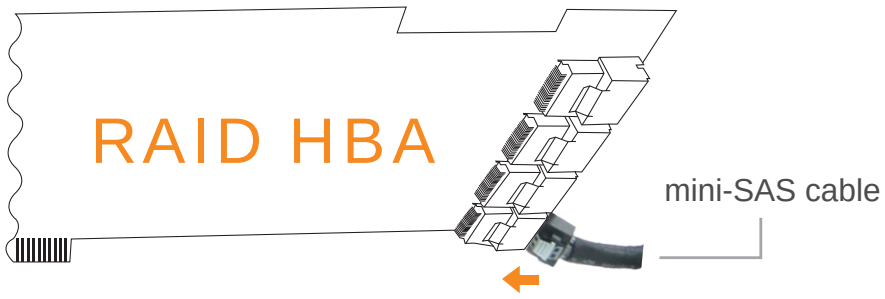
3. Three PCIe slots on rear of HighPoint NA381TB3 are covered by removable L-shape metal brackets. Unscrew the screw of the removable L-shape metal bracket to let the PCIe slots be ready for PCIe cards installation.

4. Install one SAS/SATA RAID card and other PCIe cards into proper PCIe slots of HighPoint NA381TB3, and then tighten them with screws on the brackets of the PCIe cards.



5. Connect the cable between the topmost mini-SAS connector on backplane and the mini-SAS connector Channel 1~4 on RAID card, and then connect the rest cables subsequently to the bottommost one on backplane and Channel 21~24 on RAID card.



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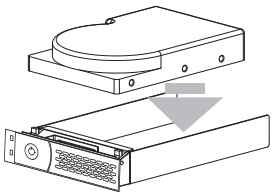
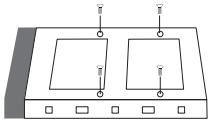
6. Restore the top cover of HighPoint NA381TB3.

5.2 Hard Drive Installation

1. Take out the drive trays.

2. Place the HDDs/SSDs in the trays and fix them with drive mounting screws. If 3.5-inch HDD, use the screws in the packet labeled with 3.5”; if 2.5-inch HDD/SSD, use the screws in the packet labeled with 2.5”.





3. Insert the drive trays with HDDs/SSDs back to NA381TB3.

5.3 Connecting to Host Computer

5.3.1 Thunderbolt 3 Mac host

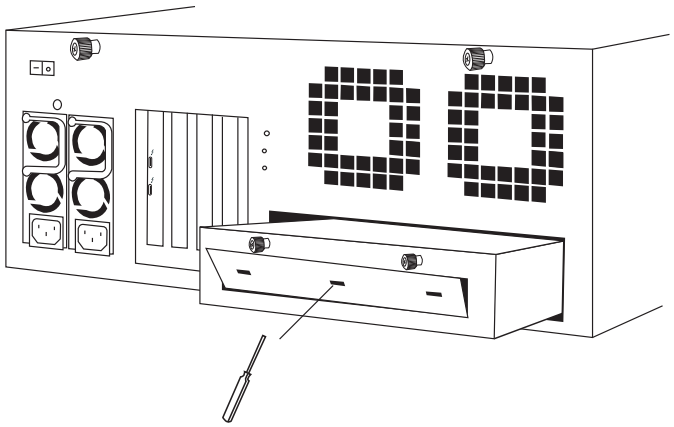
1. Connect HighPoint NA381TB3 to Thunderbolt 3 Mac directly by Thunderbolt 3 cable.

2. Immobilize the chassis on a server rack or proper place.

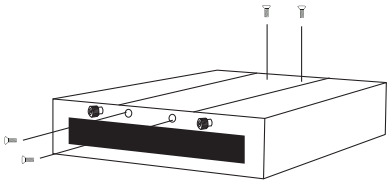
3. Connect HighPoint NA381TB3 with power source.

5.3.2 Mac mini Installation

1. Loosen the two thumbscrews on swappable integrated plate drawer, and pull it out. Use a tool to bend the metal board on plate drawer to separate the metal board from drawer.



2. Unscrew the four screws on L-type bracket on plate drawer, place the Mac mini Server into drawer, and restore the L-type bracket to fasten Mac mini Server with drawer.



3. Connect HighPoint NA381TB3 and Mac mini Server with Thunderbolt 3 cable via Thunderbolt 3 (USB-C) to Thunderbolt 2 Adapter.

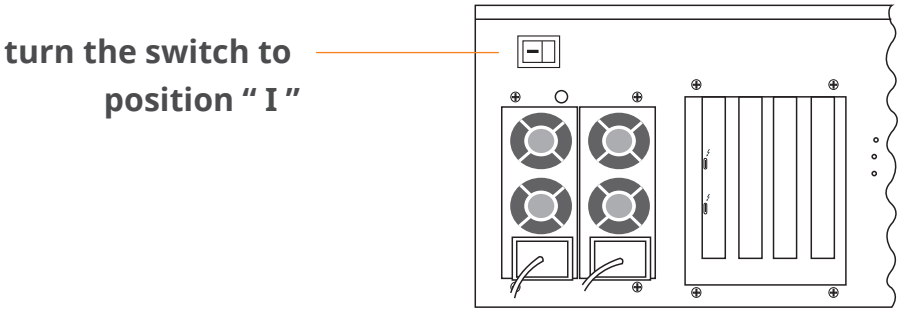
4. Immobilize the chassis on a server rack or proper place.

5. Connect HighPoint NA381TB3 with power source.

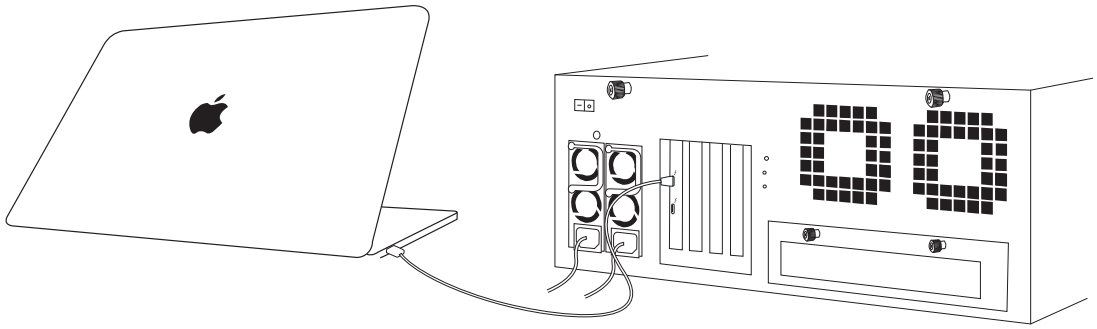
6. Operation and Verification

6.1 Verification steps for Mac

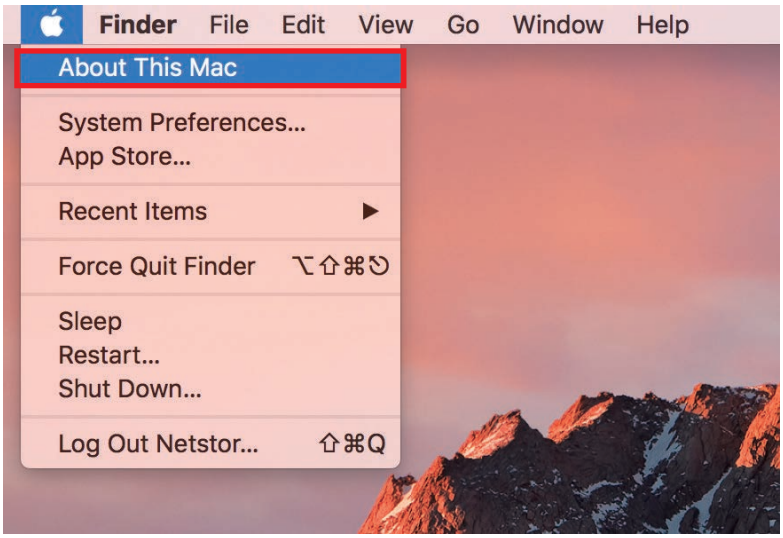
1. When HighPoint NA381TB3 is connected to the power source, turn on the power switch of storage's PSU. (turn the switch to "I" position to enable the power supply unit)

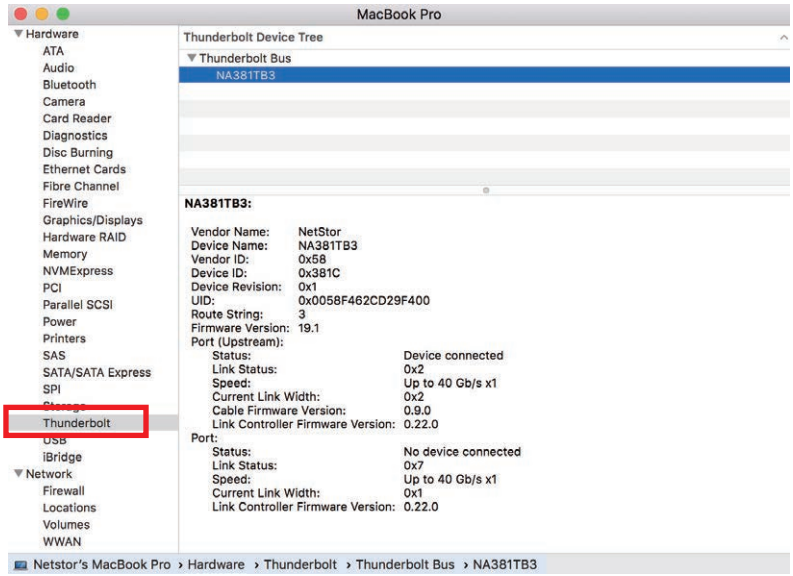


2. The HighPoint NA381TB3 is designed to be powered on/off simultaneously with Thunderbolt Mac when storage is connected to Mac by Thunderbolt cable. Therefore, power on Mac first, and then NA381TB3 will be powered on automatically. (HighPoint NA381TB3 also supports hot-plug and hot-unplug for powering on and off)



3. Verify HighPoint Thunderbolt 3 target card is recognized by Mac. Click the Apple icon on top left of the screen, select **About This Mac**, and click **System Report**, and then System Information pane will pop up. Select **Thunderbolt** at the left side of the pane; if HighPoint NA381TB3 can be selected to see its information, the HighPoint Thunderbolt 3 target card is recognized correctly by Mac.





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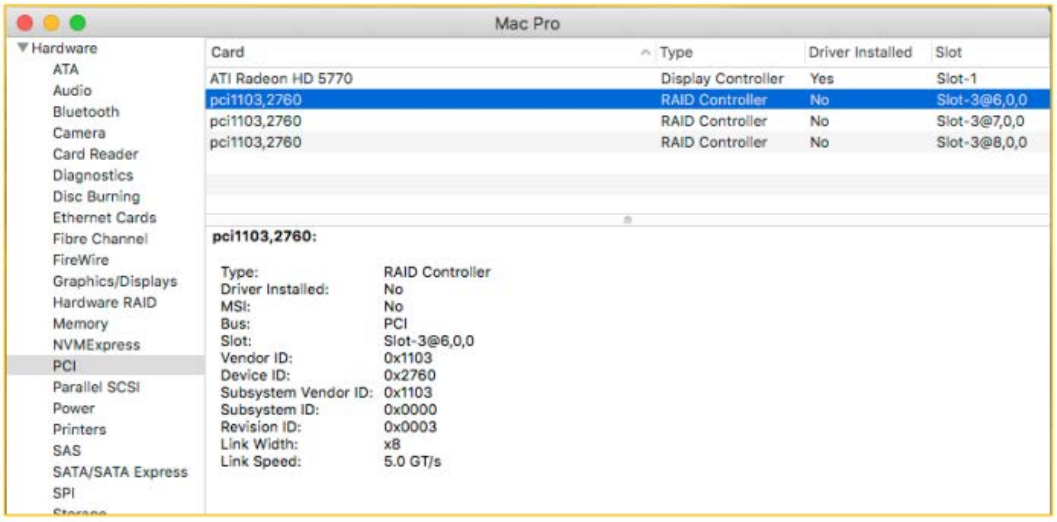
4. Verify the PCIe cards installed in HighPoint NA381TB3. After the verification of HighPoint Thunderbolt 3 target card, click **PCI** at the left side of the pane, and all the PCIe cards installed in HighPoint NA381TB3 will be shown in the information area within the pane. (For RAID card, since starting up, it will take more time for its info to be shown)

5. Verify the drivers of RAID card and PCIe cards are installed on macOS. When seeing all the PCIe cards are listed at the last step, there will be a section **Driver Installed** indicating the status of PCIe cards' drivers. If it shows "No" for the status, find and install the Thunderbolt-aware driver for the PCIe card, and then the status will become "Yes" to mean the driver of the PCIe card is installed properly.



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6. After verifying RAID card's driver is installed, follow the operation procedure instructed by RAID card's manufacturer to set up the RAID volume.

7. While HighPoint NA381TB3 is connected to Mac by Thunderbolt cable, when shutting down Mac, the HighPoint NA381TB3 will be shut down simultaneously as well.

If you have any questions, please contact your regional distributor,
or HighPoint Technologies, Inc.

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