



• NA333TB



3U 16 Bay Thunderbolt Storage with PCIe Expansion



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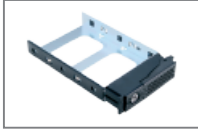
NA333TB 3U 16 Bay Thunderbolt Storage with PCIe Expansion

1. Overview

Based on the latest Thunderbolt technology and PCIe architecture, the creative, innovative design of storage allows the NA333TB enclosure to be capacity expandable with RAID performance / protection and PCIe slot expandable to Thunderbolt-equipped computers through the lightning-fast 10Gbps Thunderbolt interface. Furthermore, the Thunderbolt NA333TB enclosure is compatible with both SAS and SATA hard drives for applications in various fields.

2. Package Checklist

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



- A** Enclosure x 1 **B** HDD Tray x 16 (installed in chassis)



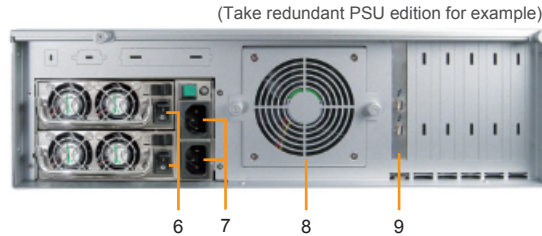
- C** Thunderbolt cable (2 meters) x 1 **D** Internal mini-SAS (SFF-8087) to mini-SAS (SFF-8087) 30 cm x 4 **E** Power cord x 1 (Single PSU) Power cord x 2 (Redundant PSU)



- F** HDD mounting screw x 64 **G** Key for HDD tray x 2

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

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. Mute Button

- Reset for Buzzer Beeping

4. Fan Status LED

- Normal - Green, Failure - Red (too slow rpm or stop)

5. Temperature LED

- Normal - Green; Over 50°C - Red

6. Power switches

7. Power cord receptacles

- 90 X 90 mm

8. How-swappable cooling fan

- 90 X 90 mm

9. Thunderbolt connectors

- Connecting Thunderbolt cables to Host and downstream device

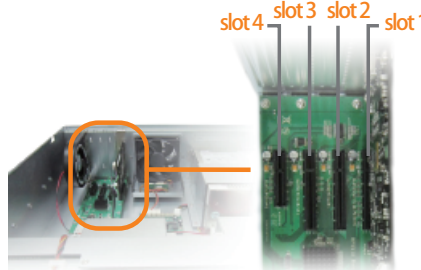
4. Hardware Configuration

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

Slot 2 : PCIe x8 slot (RAID controller card is recommended to be installed in this slot because it is closest to the connectors of backplane)

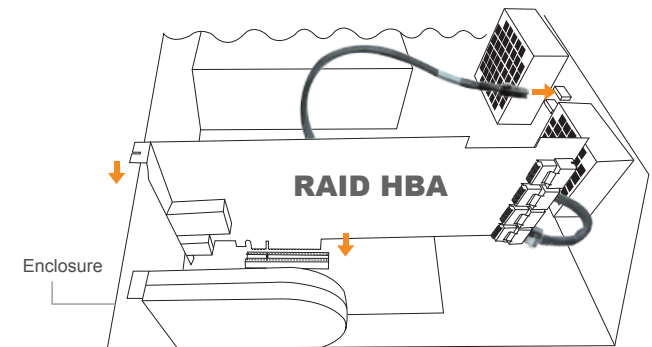
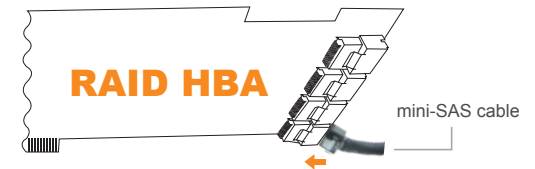
Slot 3 : PCIe x8 slot (Supports PCIe card x1/x4/x8)

Slot 4 : PCIe x4 slot (Supports PCIe card x1/x4)



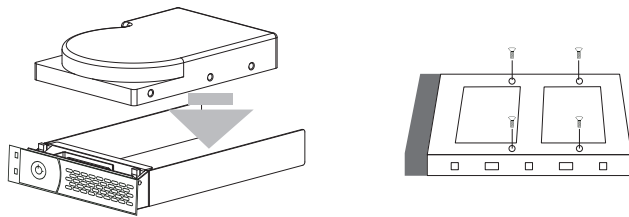
5. Build Up Procedures

1. Place the NA333TB chassis on a level surface on a stable table.
2. Open the chassis by removing the cover.
3. Three PCIe slots on rear panel of NA333TB are covered by removable L-shape metal brackets. Loosen the screw of the removable L-shape metal bracket, and then it will be ready for the installation of the PCIe card.
4. Place one PCIe SAS/SATA RAID controller card (HBA) and other PCIe cards into proper PCIe slots of NA333TB and tighten them with screws on the brackets of the PCIe cards.
5. Connect all mini-SAS to mini-SAS cables between RAID HBA and backplane. Connect the first (topmost) mini-SAS connector on backplane to Channel 1~4 mini-SAS connector on RAID HBA, the second to Channel 5~8 mini-SAS connector on HBA, the third to Channel 9~12 mini-SAS connector on HBA, and the fourth to Channel 13~16 mini-SAS connector on HBA.



6. Close the chassis and immobilize it on the server rack or other proper place.
7. Connect the chassis and the HOST with Thunderbolt cable, and then connect the chassis with power source.
8. Take out all the HDD trays.
9. Place all HDDs in the trays and fix them with Hard Drive mounting screws. Put them back to NA333TB.

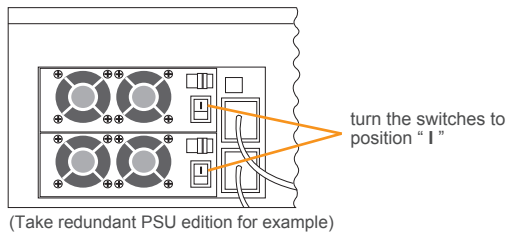
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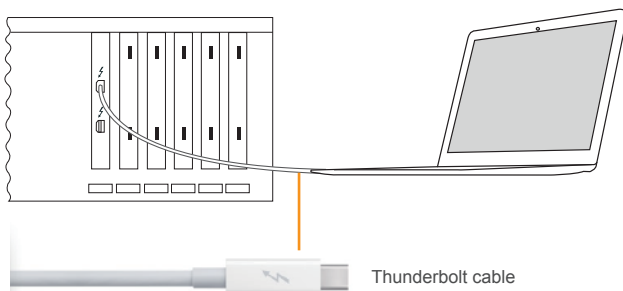
6. Operation and Verification

The following verification steps are for Mac OS only. When verification steps for Windows operating system become ready, they will be added.

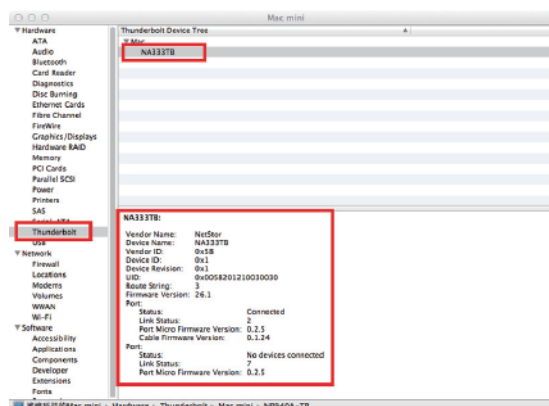
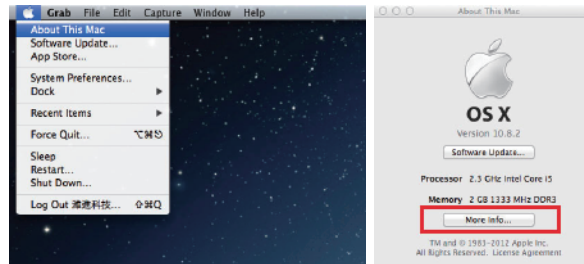
1. When NA333TB is connected to the power source with two power cords connected to the PSU of NA333TB, turn on the two power switches on the PSU. (namely, turn the switches to position "I" for enable on power supply)



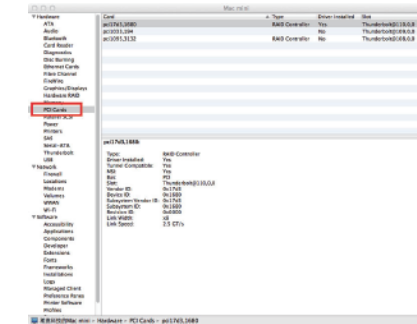
2. The NA333TB is designed to be powered on and be powered off simultaneously with the HOST when NA333TB chassis is connected to HOST by Thunderbolt cable. Therefore, power on the HOST first, and then the NA333TB will be powered on automatically. (NA333TB supports hot-plug and hot-unplug for powering-on and powering-off)



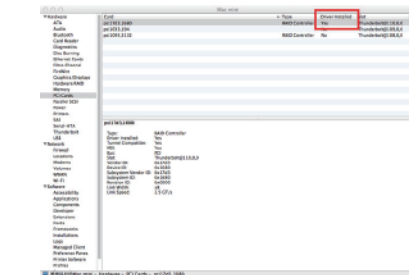
3. Verify Netstor Thunderbolt target card is recognized by HOST. Click the Apple icon on top left of the screen, and select **About This Mac**, and then select **More Info**. Next, select **System Report**, and select **Thunderbolt** on left side of the pane of System Information. Select **NA333TB** to see information about Netstor Thunderbolt target card.



4. Verify the PCIe cards installed inside NA333TB. After seeing information on Netstor Thunderbolt target card, click **PCI Cards** on left side of the pane of System Information, and then you will see all the PCIe cards listed. (For RAID controller card, from starting up, it will take more time for its info to be shown)



5. Verify the drivers of RAID controller card and PCIe cards are installed. When you see all the PCIe cards listed on the last step, there will be a column **Driver Installed** indicating the status of the drivers of the PCIe cards. If the status shows "No", please find and install the Thunderbolt-aware driver of the PCIe card, and then the status will show "Yes".



6. After verifying that the driver of the RAID controller card is installed, please follow the operation procedure indicated by the RAID HBA.
7. While the NA333TB chassis is connected to HOST by Thunderbolt cable, when shutting down the HOST, the NA333TB will be shut down simultaneously as well.

Notice: The NA333TB chassis supports SGPIO. When any HDD fails, the red LED indicator on that tray will light. The SGPIO function will be effective when the SAS/SATA RAID HBA supports SGPIO function. (For instance, Areca's RAID controller card)

If you have any questions, please contact your regional distributor, or Netstor Technology, Taiwan.

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