

NA211A-G3

External PCIe 3.0 expansion chassis 3-slots with built-in 300W power supply



User Manual

Third edition, Nov. 2020

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1. Overview

Based on the latest PCIe Gen3 technology and architecture, the revolutionary design of NA211A-G3 allows different combinations of high-performance PCIe add-on cards to work with any host computer with PCIe slot to meet professionals' requirements for any demanding configuration at work. This user's manual will help you set up the Netstor NA211A-G3 enclosure.

2. Package Checklist

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

- A** Enclosure x 1
- B** PCIe 3.0 x4 host card x 1
- C** External PCIe 3.0 x4 data cable (1.5-meter) x 1
- D** Power cord x 1

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

3. Panel Layout

1. Power-on LED button

- Press and hold the LED button for three seconds until it shows blue light for powering on the NA211A-G3. As the unit is at the powered on status, press and hold the LED button for three seconds until it shows no light for powering off the Netstor unit.



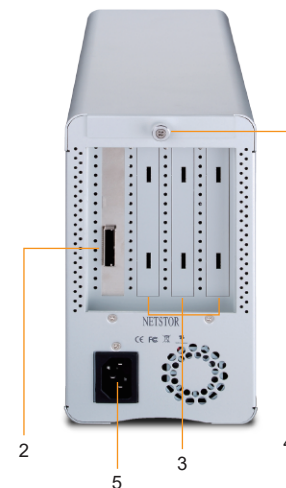
2. External PCIe 3.0 ×4 Port

- For connecting to the host computer

3. PCIe Expansion

4. Thumbscrew for loosening/tightening the top cover

5. Power cord receptacle

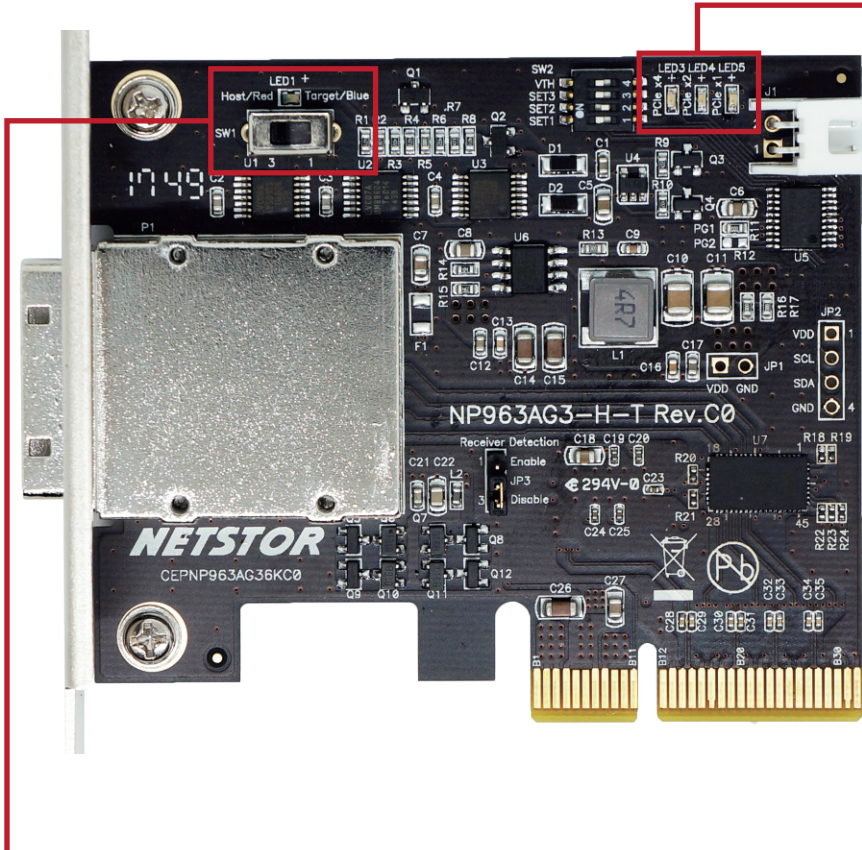


4. LED Status on Host card and Target card



LED3 ~ LED5 show solid green light: PCIe x4 connection between computer and NA211A-G3 is linked

LED3 ~ LED5 no light: PCIe connection between computer and NA211A-G3 is NOT linked



SW1 switch:



When SW1 switch is turned to the left position, the NP963AG3 card will be set as the host card. The LED1 will show red light to indicate the NP963AG3 card is configured as the host card.



As SW1 switch is turned to the right position, the NP963AG3 card will be set as the target card. The LED1 will show blue light to indicate the NP963AG3 card is configured as the target card.

5. PCIe Card Hardware Configuration



Slot 1 : PCIe 3.0 ×4 target card

(This is the upstream slot. Note the target card cannot be moved)

Slot 2 : PCIe x8 slot (open-type; supports PCIe card x16/x8/x4/x1)

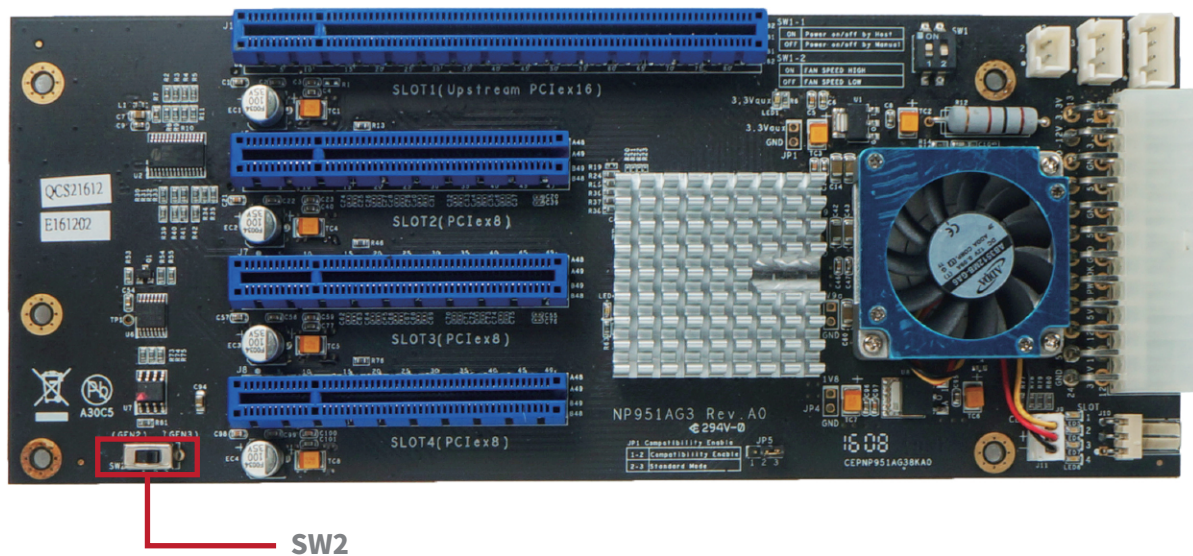
Slot 3 : PCIe x8 slot (closed-type; supports PCIe card x8/x4/x1)

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

6. Installation of PCIe Add-on Cards in NA211A-G3

Before card installation in NA211A-G3, read through the following notice and instructions.

Computer's PCIe slot to be linked with NA211A-G3 must be identified first for the correct connection between host computer and NA211A-G3.



Two conditions A and B for connection are listed below:

- A. If computer's PCIe slot to be linked with NA211A-G3 is PCIe 3.0 ×4, then you don't need to make any change to the switch setting on NA211A-G3 slot board because NA211A-G3 is already set to work with computer's PCIe 3.0 ×4 slot by default.
- B. If computer's PCIe slot to be linked with NA211A-G3 is PCIe 2.0 ×4, then you will need to set NA211A-G3's slot board to PCIe Gen2 to let Netstor unit be compatible with tower Mac Pro or host computer.

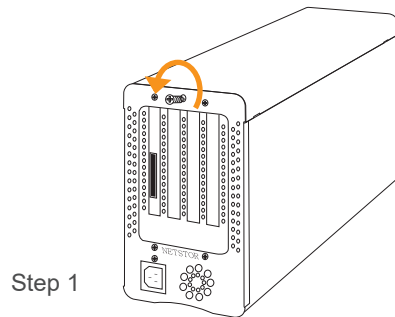
To set NA211A-G3 as Gen3 mode, turn SW2 switch to right position. (default)

To set NA211A-G3 as Gen2 mode, turn SW2 switch to left position.

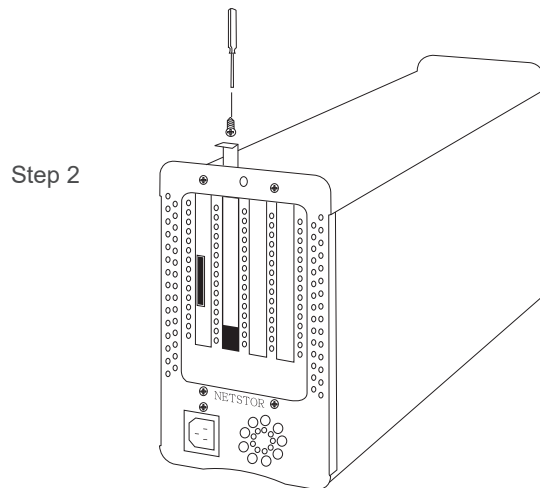
※ PCIe expansion slot board LEDs Status

Before proceeding to card installation procedure, disconnect NA211A-G3 from power source for prevention of electric shock or damage to PCIe add-on card.

1. Loosen the thumbscrew and remove the top cover of the enclosure.

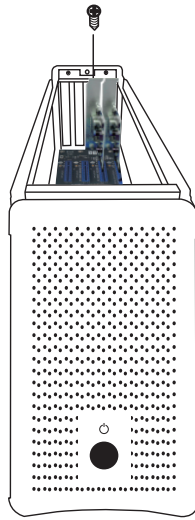


2. Three PCIe slots at rear panel of NA211A-G3 are pre-covered by removable L-shape metal brackets. Loosen the screw of the removable L-shape metal bracket for the PCIe add-on cards installation.



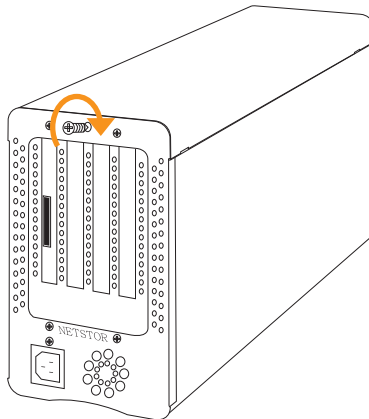
3. Insert PCIe add-on cards in the proper PCIe slots within the enclosure and tighten them with screws on PCIe add-on cards' brackets.

Step 3



4. Put the top cover back to enclosure and tighten and thumbscrew.

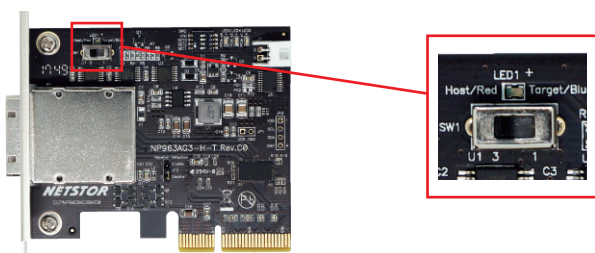
Step 4



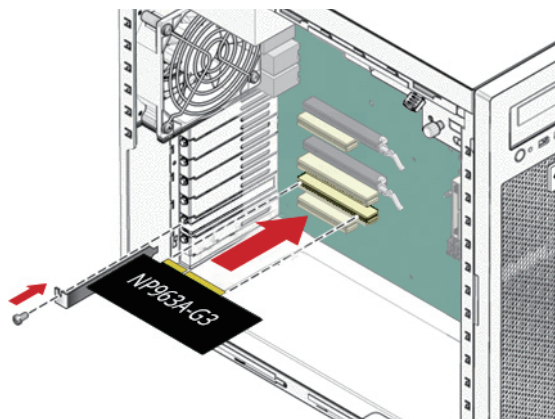
7. Installation of Netstor PCIe 3.0 ×4 Host Card in Computer

Before the installation of Netstor host card in host computer, make sure the computer is at the powered off status.

1. Open the cover of computer chassis.
2. Locate one available PCIe 3.0/2.0 ×4/x8/x16 slot on the motherboard within the computer.
3. By default, Netstor host card's SW1 switch is set to the left position for being a host card. Double check whether host card's SW1 switch is still as default as the left position. Note after powering on, the LED1 on host card will show red light to mean it's the correct configuration.



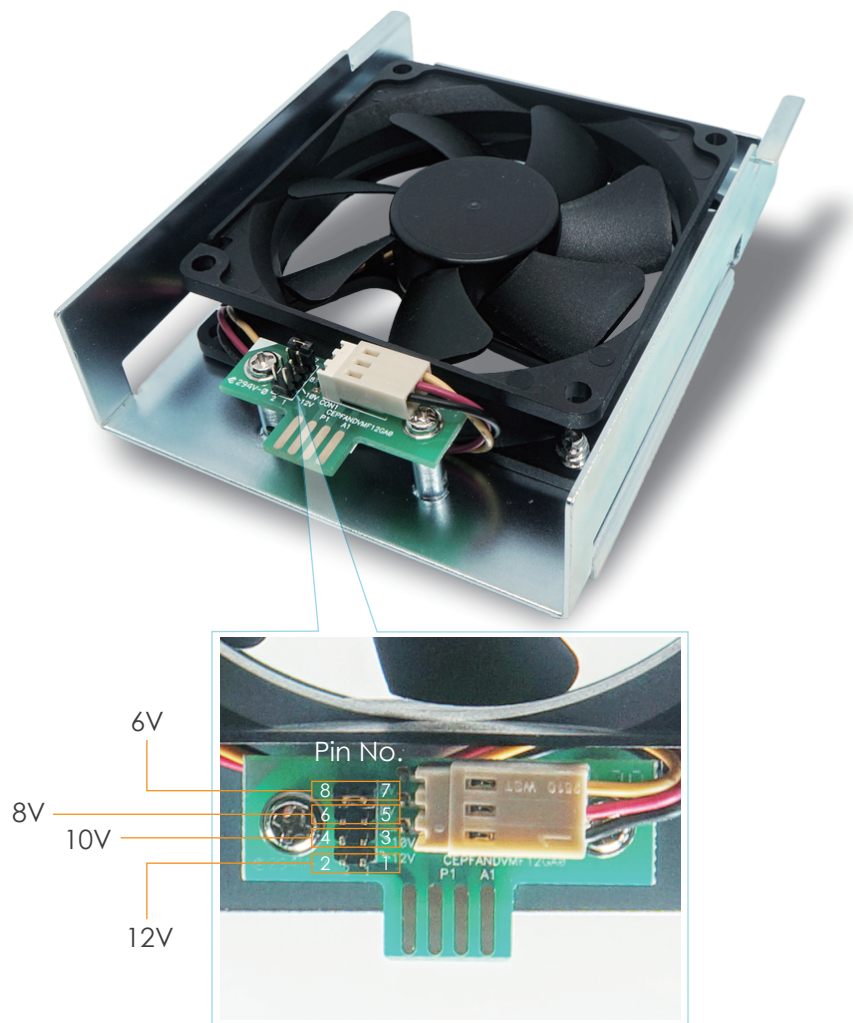
4. Install Netstor PCIe 3.0 ×4 host card in the available PCIe 3.0/2.0 ×4/x8/x16 slot in computer. Use the screwdriver to tighten the screw to host card's bracket in order to have the host card fastened to the computer chassis.



5. Restore computer chassis' cover.

8. Fan Speed Adjustment

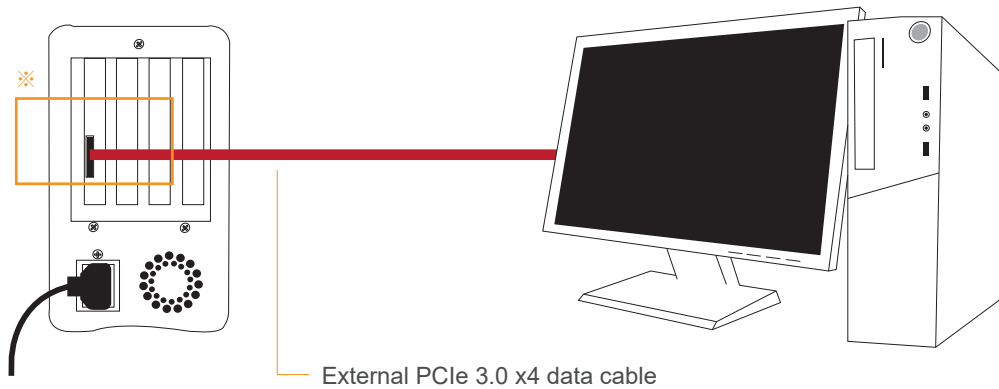
To adjust the fan speed of 8x8 cm cooler on NA211A-G3, pull the fan cooler module out. Above cooler's connector, there are four sets of jumpers labeled 6V, 8V, 10V, 12V from top to bottom. The default setting is jumper being placed over pin 7 and pin 8 for 6V for medium fan speed. The fan speed increases from 6V to 12V (12V: full speed). If all pins are open (no jumper placed over pins), the fan will not spin.



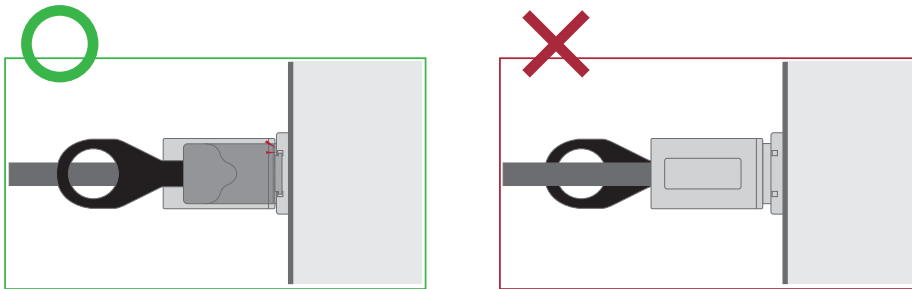
9. Operation and Verification

9.1 Windows Operating System

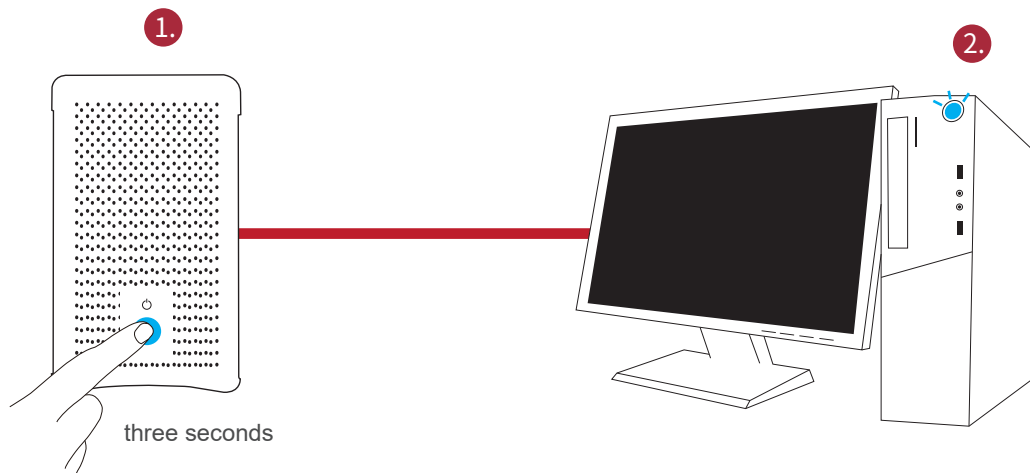
1. Connect NA211A-G3 chassis with power source, and then connect Netstor chassis and host computer with the included external PCIe 3.0 ×4 data cable.



※ Note the ring-pull of the external PCIe ×4 data cable connector must be at the same side as Nestor host card and target card's obverse side when cable is connected to the host/target card.



2. Firstly press and hold Netstor chassis' front LED button for three seconds until it shows blue light for powering on the NA211A-G3, and then power on the host computer.



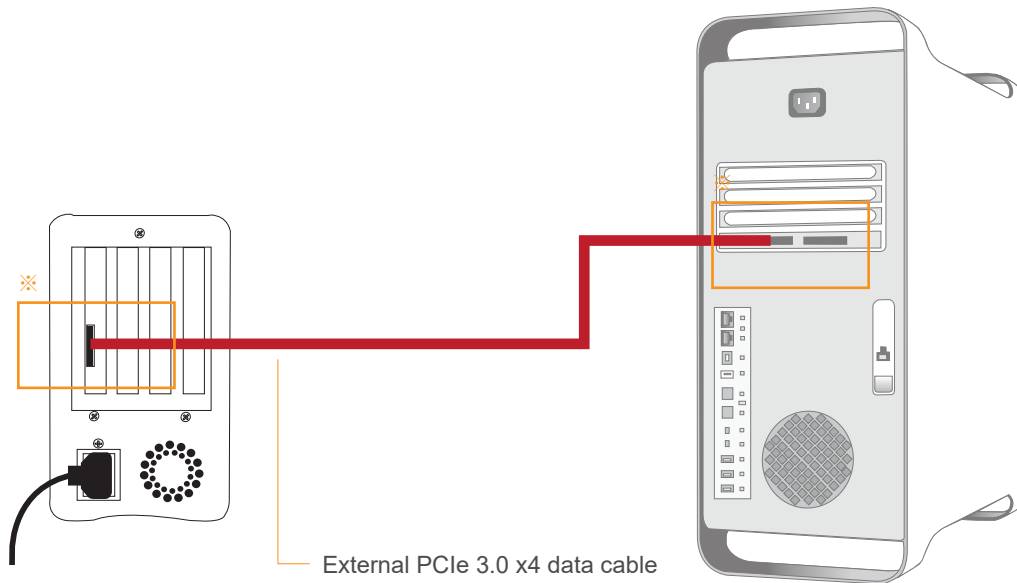
3. Verify the third-party PCIe cards installed in NA211A-G3. At Windows' desktop, right click **This PC**, and select **Manage**. As window of Computer Management pops up, click **Device Manager** in the left column, click **View** at the top menu bar, and select **Devices by connection**.
4. Click **ACPI x64-based PC**, select **Microsoft ACPI-Compliant System**, and click **PCI Express Root Complex**. Open the PCI Express Root Port, and the third-party PCIe cards installed in NA211A-G3 will be shown, meaning that the PCIe cards within the Netstor chassis are recognized correctly by the host computer.
5. After the Windows drivers for the third-party PCIe cards within NA211A-G3 are installed on the Windows operating system, the PCIe cards in Netstor unit will work properly with the host computer.

Follow the procedure below to turn off the system:

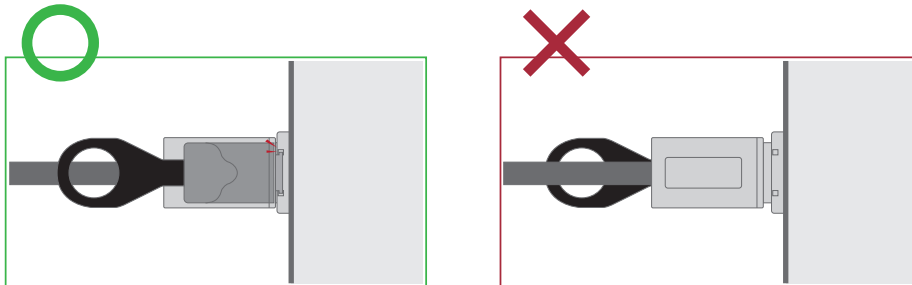
Firstly shut down the computer; after the computer is powered off, press and hold Netstor chassis' front LED button for three seconds until it shows no light for powering off the NA211A-G3.

9.2 macOS

1. Connect NA211A-G3 chassis with power source, and then connect Netstor chassis and tower Mac Pro with the included external PCIe 3.0 ×4 data cable.



※ Note the ring-pull of the external PCIe ×4 data cable connector must be at the same side as Nestor host card and target card's obverse side when cable is connected to the host/target card.



2. Firstly press and hold Netstor chassis' front LED button for three seconds until it shows blue light for powering on the NA211A-G3, and then power on the tower Mac Pro.

3. Verify the third-party PCIe cards installed in NA211A-G3. At macOS's desktop, click the Apple icon on top left of the screen, select **About This Mac**, click **System Report**, and the System Information pane will pop up.
4. At System Information pane, click **PCI** in the left column, and all the third-party PCIe cards installed in the NA211A-G3 chassis will be shown in the information area.
5. Verify the drivers for the third-party PCIe cards in Netstor unit are installed on macOS. As seeing all the PCIe cards are listed in PCI section 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.
6. After the Windows drivers for the third-party PCIe cards within NA211A-G3 are installed on the Windows operating system, the PCIe cards in Netstor unit will work properly with the host computer.

Follow the procedure below to turn off the system:

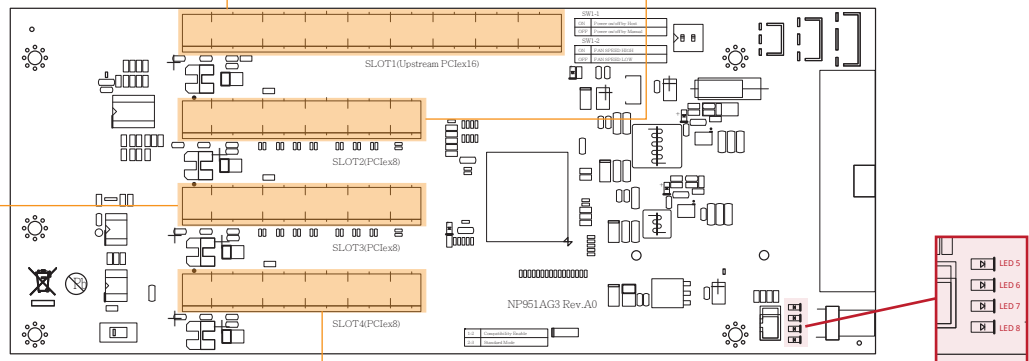
Firstly shut down the computer; after the computer is powered off, press and hold Netstor chassis' front LED button for three seconds until it shows no light for powering off the NA211A-G3.

Slot 1: Target card

- (already fixed in the chassis)

Slot 2: PCIe ×8 slot

- (open-type; supports PCIe card ×16/×8/×4/×1)
- RAID card is recommended to be installed in this slot as it's closest to backplane's connectors.



Slot 3: PCIe ×8 slot

- (closed-type; supports PCIe card ×8/×4/×1)

Slot 4: PCIe ×8 slot

- (open-type; supports PCIe card ×16/×8/×4/×1)

NOTE:

The host computer should have at least one PCIe ×8 or ×16 slot. There may be PCIe slot which is ×8 or ×16 physically but ×4 electrically within the host; please always install the host card in PCIe slot ×8/×16 electrically in the host computer. Check motherboard's user manual to identify the specification.

LED5 for SLOT1

As LED5 illuminates solid blue light, it indicates PCIe target card in SLOT#1 is in Gen3 mode. As LED5 blinking blue light, PCIe target card in SLOT#1 is in Gen2 mode.

LED6 for SLOT2

As LED6 illuminates solid blue light, it indicates the PCIe card in SLOT#2 is in Gen3 mode. As LED6 blinking blue light, PCIe card in SLOT#2 is in Gen2 mode.

LED7 for SLOT3

As LED7 illuminates solid blue light, it indicates the PCIe card in SLOT#3 is in Gen3 mode. As LED7 blinking blue light, PCIe card in SLOT#3 is in Gen2 mode.

LED8 for SLOT4

As LED8 illuminates solid blue light, it indicates the PCIe card in SLOT#4 is in Gen3 mode. As LED8 blinking blue light, PCIe card in SLOT#4 is in Gen2 mode.

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



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