NETSTOR

TurboBox® mini

Quick Installation Guide

External PCIe Box for Laptop

Version 1.0

NA221A

NetStor Technology Co. Ltd.

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NA221A External PCIe Box for Laptop

1. Overview

Thanks for purchasing Netstor's products. TurboBox-mini is designed for attaching any type of PCI Express card to your laptop or desktop computer though our ExpressCard or a PCI Express host card.

2. Package Checklist

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

D Power Adaptor x1

A TurboBox mini x1

E User manual CD x1

B Carry Bag x1   **C** Power Cord x1   **F** Stand x1

Optional combinations

One of the following optional host adaptors must be chosen in order to attach NA221A to your Desktop or Laptop computer.

G Laptop Host Package

ExpressCard 34 Laptop Adaptor

PCI-e 4x cable to Multilane cable, 1M
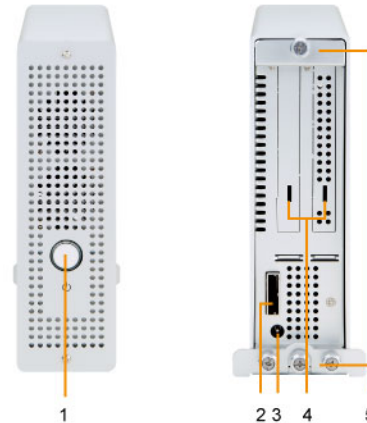
H Desktop Host Package

PCI-Express Desktop Adaptor

PCI-e 4x to PCI-e 4x cable, 1.5M

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

3. Description of Panel Layout

1   2 3   4   5

1. Power ON/OFF Button

Blue – Power On
Note: To Power on/off the TurboBox-mini, press the button for 2 seconds.

2. External PCIe x4 connector for host connection
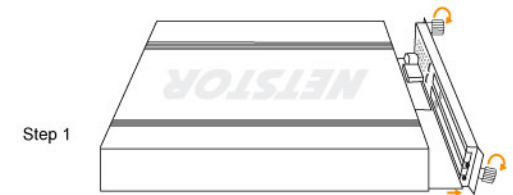### 3. Power Adapter Receptacle
4. PCIe Slot
5. Thumbscrew to loosen/lock the PCIe Slot frame

To Laptop computers, the speed of the Expresscard from Laptop will run at PCIe x1 / x2 (2.5 Gbps / 5 Gbps).
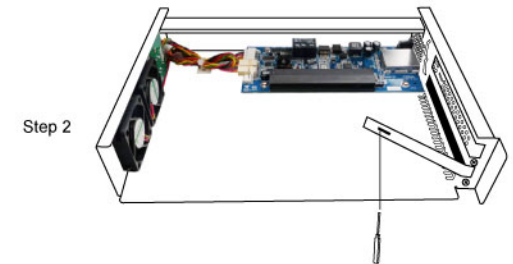To Desktop computers, the speed of the PCIe expansion slots will run at PCIe x4 (10 Gbps).

4. Installation of PCI Express add-on card into NA221A

Before the following installing procedure, disconnect the NA221A from the power source to prevent electric shock or add-on card damage.
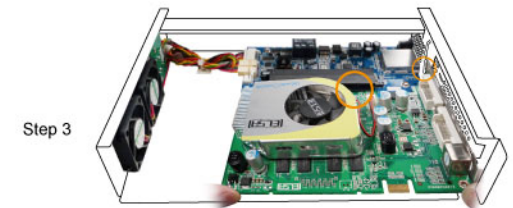
1. First loosen the two thumb screws and draw the PCIe slot frame from NA221A

Step 1

2. Bend the L shape metal bracket on the rear panel of PCIe slot frame for preparation the installation of PCI Express add-on card.(! Here we recommend that using the screwdriver to avoid the injury)
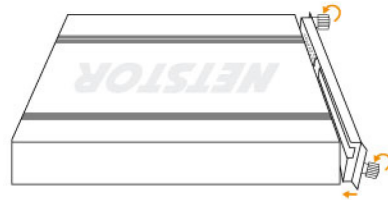
Step 2

3. Insert the PCI Express add-on card into the PCIe x16 connector and screw them well.
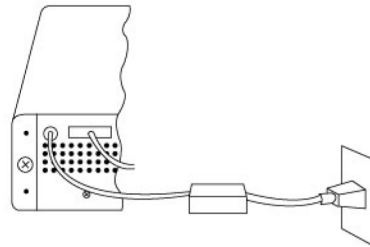
Step 3

4. Find the slide guide from aluminum housing of NA221A, insert the whole PCIe slot frame back to the aluminum housing and lock the two thumb screws well.

Step 4

5. Connect the power adapter and the end of PCIe x4 cable to NA221A then plug the power cord completely into the recessed power socket on the power adapter and plug the other end into a grounded outlet or a grounded power strip.
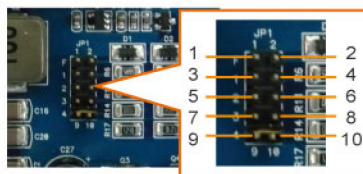
Step 5

Note: The TurboBox-mini can be put on horizontal or vertical. If you want to put the TurboBox-mini on vertical the installation the enclosed star will let NA221A stand well.

5. Fan Speed Adjustment

You are able to adjust the speed of two 40×40×10 mm cooling fans on TurboBox-mini NA221A. To adjust the fan speed, find the five sets of jumpers labeled with F, 1, 2, 3, and 4 respectively from top to bottom on the board of NA221A. The default setting is the jumper being placed over pin 9 and pin 10 for label 4, meaning the slowest speed of fan. If the jumper is placed over pin 1 and pin 2 for label F, the fan will spin at full speed. From label 1 to label 3, the fan speed decreases. If all of the pins are open (meaning no jumper is placed over the pins), the fan will not spin.

6. Host Adaptor Installation and cable connection
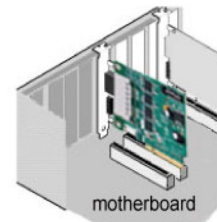
· For Laptop

a. Connect the end of PCI Express cable with screw connector to Netstor Turbo ExpressCard host adaptor

b. Insert the Turbo ExpressCard host adaptor into the ExpressCard slot on your laptop computer

· For Desktop

! Before the following installing procedure, disconnect the Computer from the power source to prevent electric shock or add-on card damage.

a. Install Netstor Turbo PCI-Express host adaptor into an available PCI Express slot x4 (x8/x16 Compatible) in your Desktop computer. Secure with retaining screw.

motherboard

b. Connect the other end of the PCI Express x4 cable to the Turbo PCI Express host adaptor.

7. Power on the TurboBox-mini

Power on the TurboBox-mini by pressing the Power Switch button 2 seconds

8. Power on the Computer

In order to let the Computer BIOS identify and assign resources appropriately. Make sure to power on Netstor TurboBox-mini first and then the Computer.

There is no software required on Netstor TurboBox-mini for proper configuration by Computer OS; however your operating system may prompt for software or drivers required for the PCI Express Card installed in TurboBox-mini.
Please follow the instruction included with your PCI Express add-on card.

9. Remove the TurboBox-mini and Power Off

· For Removing the NA221A from a Laptop:

a. Double click the safely Remove Hardware icon in the bottom right corner of your laptop screen.
b. Power Off the TurboBox-mini

· For Desktop Computer:

a. Power Off the Computer
b. Power Off the Turbobox-mini

10. Verify Installation

· For Windows operating system

When you want to verify a successful installation on Windows operating system, go to **My Computer** and right click the icon of **My Computer**.
Select **Manage** from the menu (see figure 9-1), and click **Device Manager** in the left side of window of Computer Management (see figure 9-2).
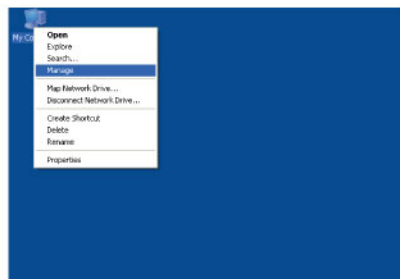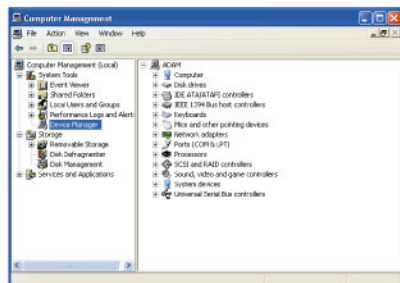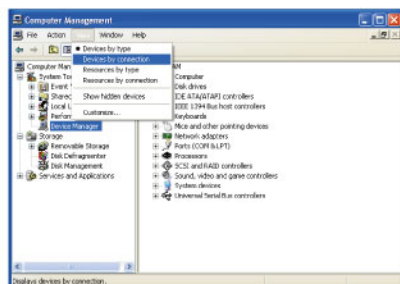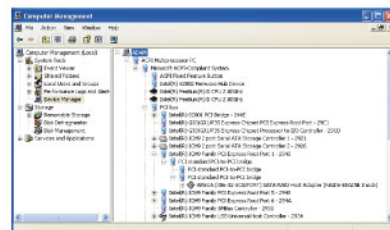
Figure 9-1

Figure 9-2

And then click **View** from the top side of the window, and select **Devices by connection**.
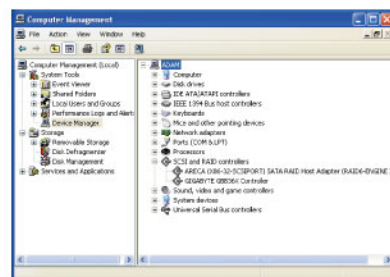

Open ACPI Multiprocessor PC, open Microsoft ACPI-Compliant System, click PCI bus, and click PCI Express Root Port. And then you will find your third party PCIe card under PCI Express Root Port.

Note: You may see PCI Express Root Ports with different ending numbers such as 2940, 2942, and 2944, etc. These different ending numbers indicate different PCIe slots on motherboard.
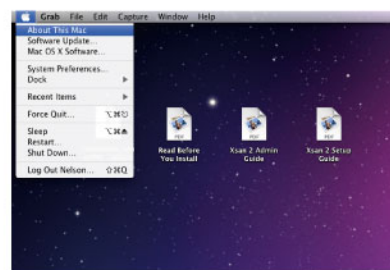

Note: If there is a yellow exclamation mark in front of the third party PCIe card under PCI Express Root Port, it means the third party PCIe card is without the driver, so you have to install its driver on operating system to make it work with the computer.

After the driver is installed on operating system, the third party PCIe card will work properly with the computer via TurboBox-mini, and the name of the third party PCIe card will be shown under PCI Express Root Port; furthermore, the name of the third party PCIe card will also be shown in the list of Device Manager.
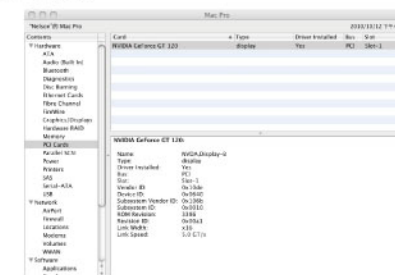

• **For Mac OS X**

To verify a successful installation on Mac OS X, select About This Mac under the Apple icon.
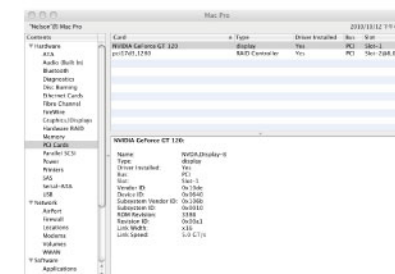

Click **More Info**... from the window.

Click **PCI Cards** from the left side of the window, and when there is no third party PCIe card plugged in TurboBox-mini, the window will not show any of the third party PCIe card.

When a third party PCIe card is plugged in the PCIe slot in TurboBox-mini, the third party PCIe card will be shown in the window.

When the driver of the third party PCIe card is installed on Mac OS X, your computer will begin working with the third party PCIe card in TurboBox-mini.

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