How to install the Taiko Audio Extreme Network Card – Windows

You can use Windows or MacOS and there are separate guides describing each procedure. This guide details the steps for Windows.

Extreme Switch and Extreme Network Card work only with 1Gb connections

Please note that SFP modules and -ports are designed for a single. The SFP modules and ports that we use in our Taiko Audio products are specified to work only at 1Gb. For this reason, the Extreme Switch and Extreme Network Card work only with 1Gb connections. They are incompatible with 100mb connections.

Please scroll down to the bottom of this document for instructions on how to determine your network connection speed.

The basic steps

1. Install the Taiko Audio Extreme Network Card in the Extreme

The physical installation works just as with any other PCI-card. Just make sure to power off the Extreme first via the Front panel button, and then via the rear panel rocker switch. Leave the power cable connected and ground yourself by touching an outside copper part the Extreme's chassis. Try not to walk around too much while handling PCI cards. The Extreme Network Card is preferably installed in Slot 2, in place of the old SFP card. Please note that PCIe cards such as the Extreme Network Card have a very narrow slot connector and as such do not use the PCI slot latching clip, as full-size PCI cards do. Power to the card is provided by a split DC cable that substitutes the single cable that powered the USB cable and will then power both the USB card and network card. After replacing the Extreme's lid, the rear rocker power switch can be set back to the ON position.

2. Download the installation script from the Taiko Audio Website

On a PC that is on the same (WiFi-) Network as the Extreme, go to the Downloads page, and download the installation script (networkcard.zip) to a known location, for instance, the desktop. The card must first be installed, prior to running the script. The script applies settings to improve the sound quality for the network card / switch combination. Functionally, the card will operate without running the script, just not at the maximum attainable SQ. This applies to any and all Extreme installations.

URL: https://taikoaudio.com/taiko-2020/taiko-audio-downloads
Zipped file name: networkcard.zip
Embedded file name: networkcard.ps1
Detailed instructions be found below.

3. Unzip the installation script

Double-click the downloaded Zip file and drag the networkcard.ps1 out of it onto the desktop. This is the installation script file that will need to be copied to the Extreme. Detailed instructions can be found below.

4. Copy the file to the Extreme's Music directory

Open a File Explorer Window and navigate to the Extreme's Music Drive share, which is usually the D: drive. Detailed instructions can be found below.

5. Connect to the Extreme via VNC

Use VNC on your PC to connect to the Extreme's desktop.
Detailed instructions can be found below.

6. Copy the installer file to the Extreme's Desktop

After having connected to the Extreme via VNC, you can simply drag and drop it from the Music Folder to the Extreme Desktop which will make a copy. When copied, you may delete it from the music folder. Detailed instructions can be found below.

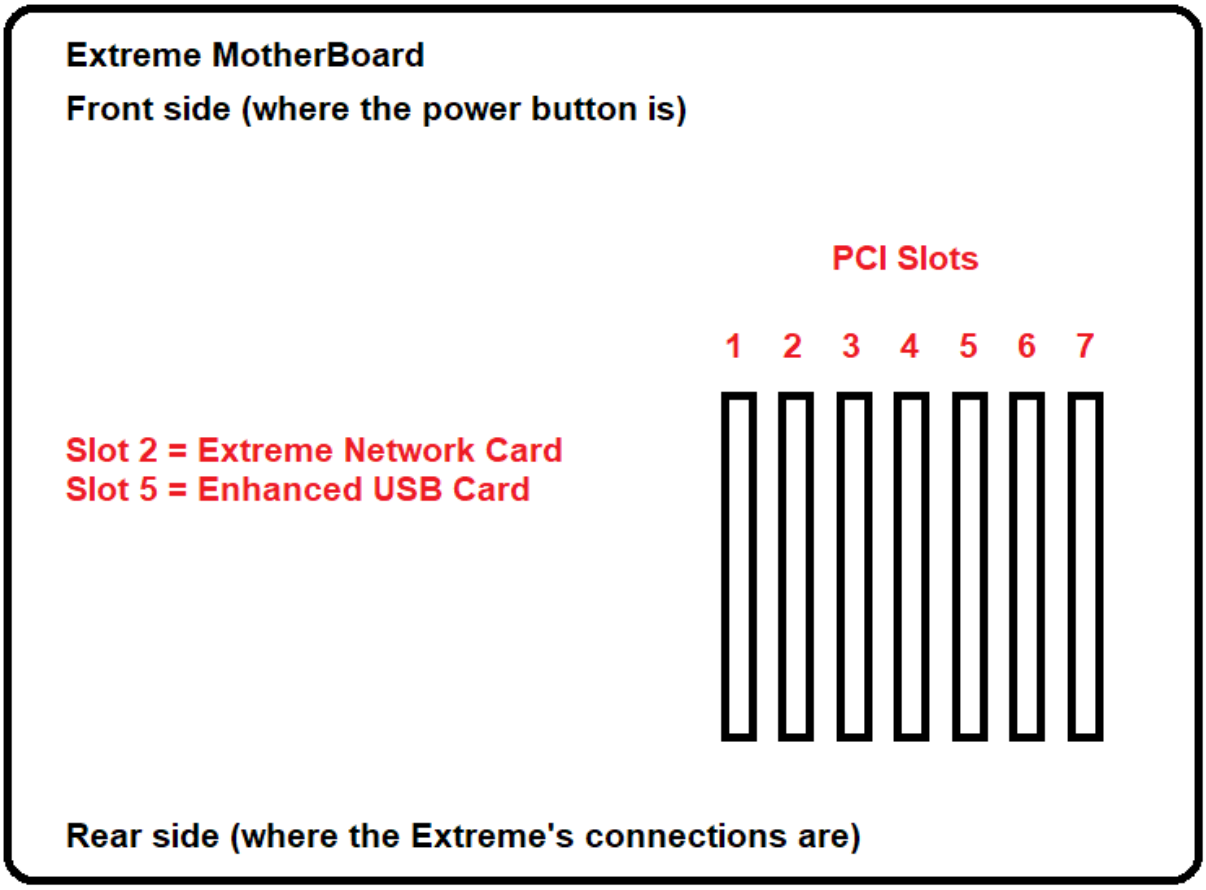
7. Run the file

Right-click it and select "Run with PowerShell". The script will run and the Extreme will automatically restart. After this, your new Taiko Audio Extreme Network Card is installed. The file will not affect the old network card. Detailed instructions can be found below.

Installation

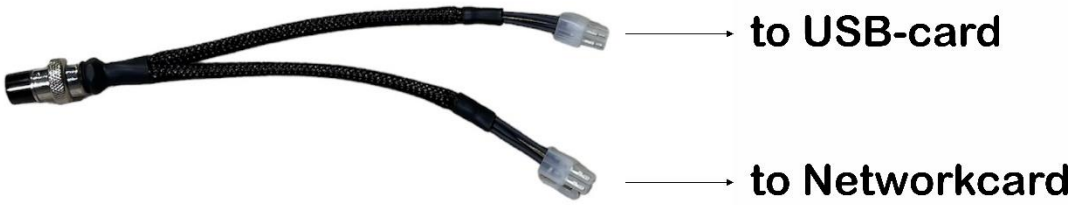
The Extreme Network Card goes into Slot 2.

Please refer to the below diagram of the Extreme's motherboard.

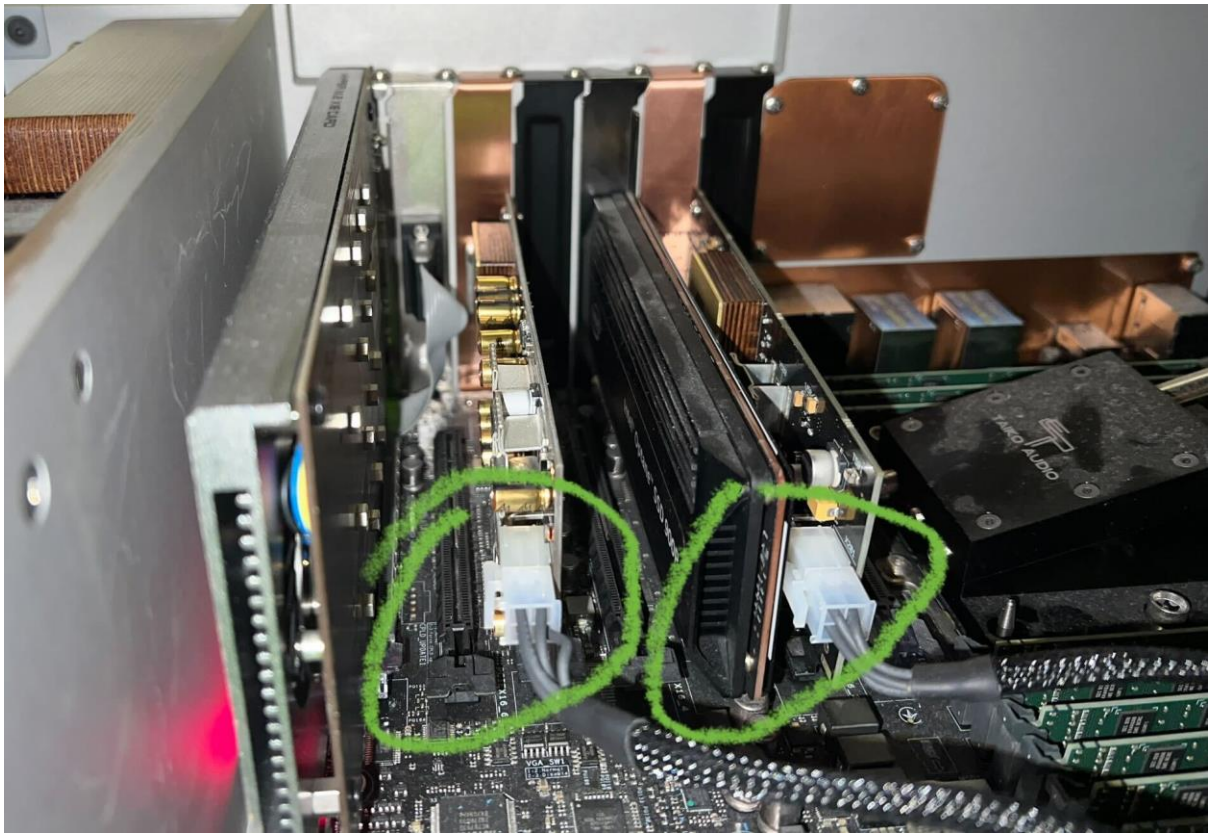


Please note that PCIe cards have a very narrow slot connector and as such do not use the PCI slot latching clip, as full-size PCI cards do.

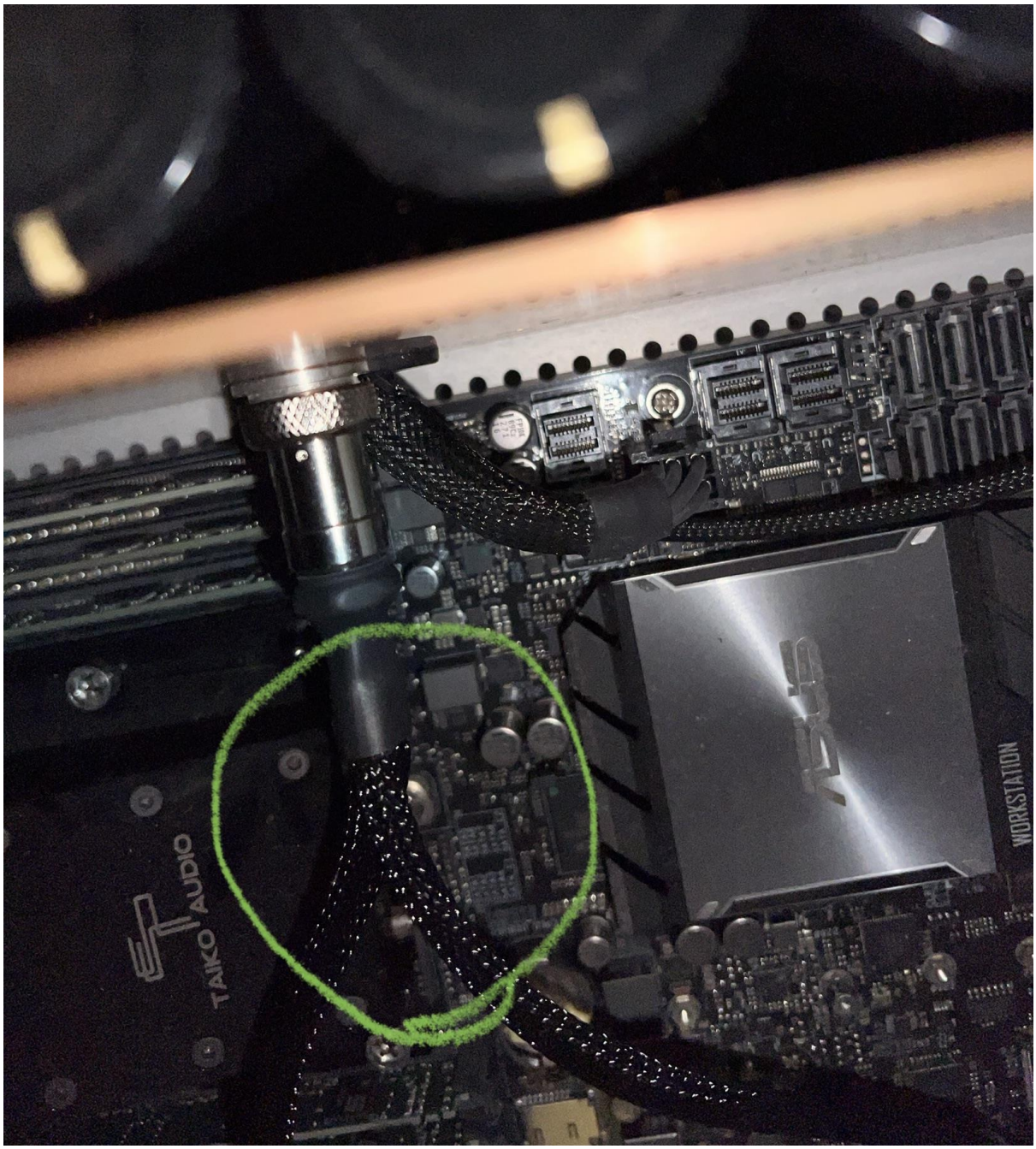
If you have a Taiko Enhanced USB Card installed, remove the power cable. Use the new splitter cable to power both the USB card and the network card (Fig 1.)



On the left is the Enhanced USB Card, on the right is the Extreme Ethernet Card. Circled in green are the DC Power connectors from the splitter cable.

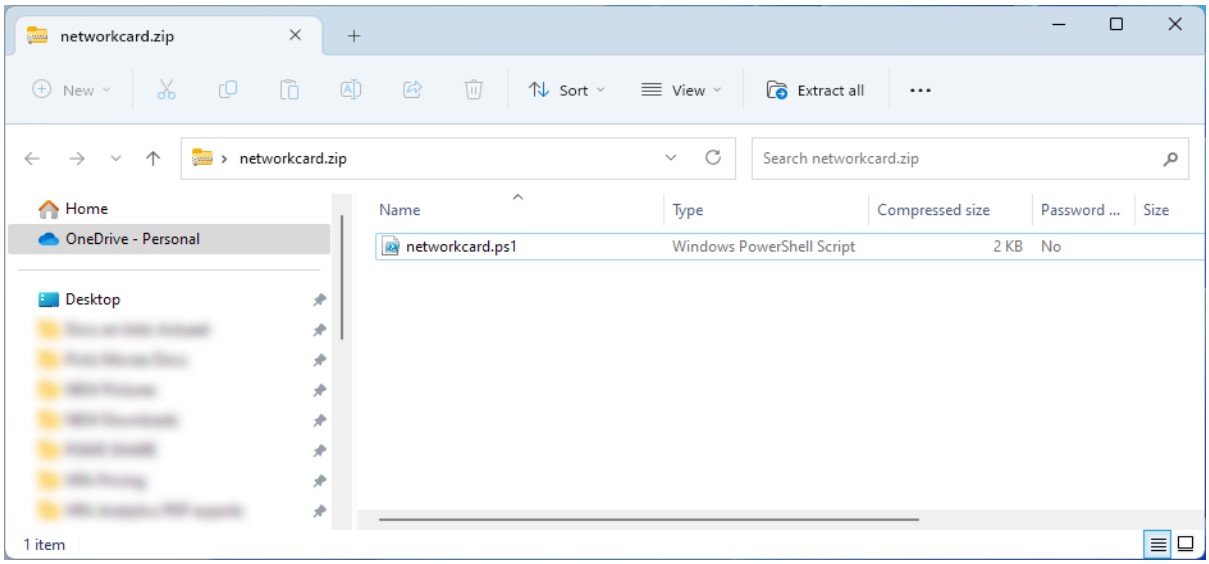


Here you can see the splitter cable connected to the DC output in the copper wall.



Unzipping the downloaded file

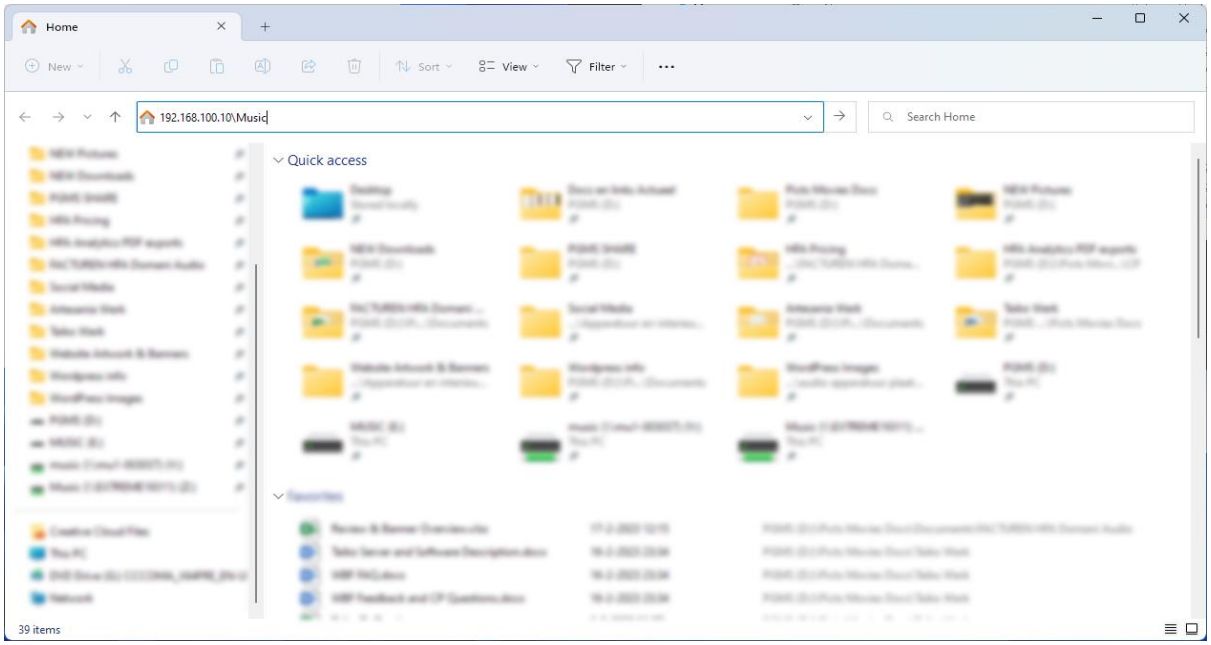
Double-click the downloaded Zip file to see the contents in a new window



Drag the networkcard.ps1 file out of the window onto the desktop to unzip it. The networkcard.ps1 file (highlighted) will need to be copied to the Extreme.

Access Extreme Music Drive

On Windows, you can access the Extreme's Music Drive via Windows File Explorer (Windows-E) by typing the Extreme's local IP Address in the File Explorer address bar window, followed by "\Music". For instance: \\192.168.1.10\Music



If you don't know the server's IP address, you can find it by looking in the Roon app.

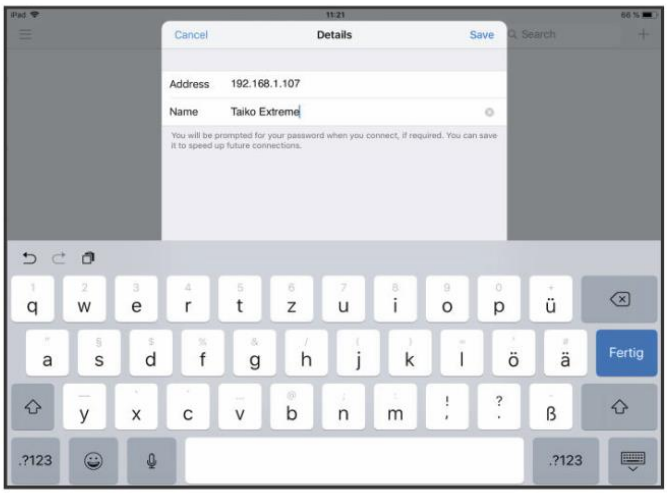
Alternatively, you can obtain the Extreme's IP Address using the "Fing" iPad application.

Accessing the Extreme desktop via VNC

For some functions you need to access the desktop of the server. To access the desktop, do the following:

Tip If you have accessed the desktop of the server before, and the IP address of the server has not changed, you can start at step 4.

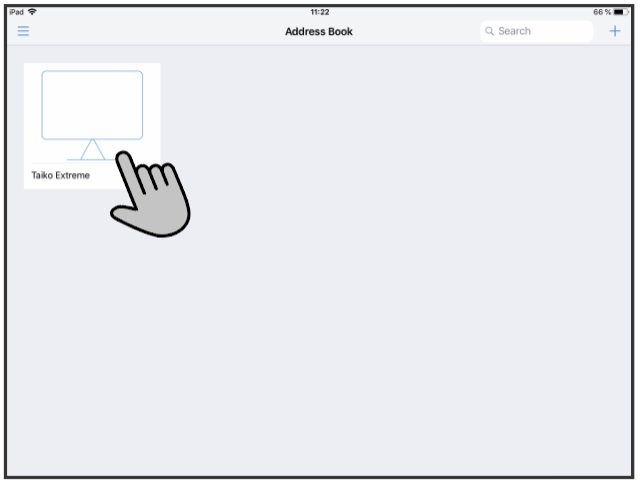
1. Download realVNC on a device connected to the same (WiFi-) Network as the server. You can find the app here: https://www.realvnc.com/en/connect/download/viewer/
2. Run the VNC app. (setting up a RealVNC account is not required)
3. Click on the + symbol in the top right corner.



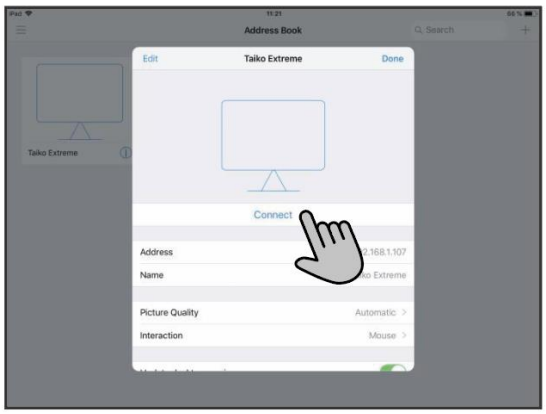
Tip You can find the IP address of the server in the Roon app.

4. Enter the IP address of the server and choose any name.
5. Click *Save*.

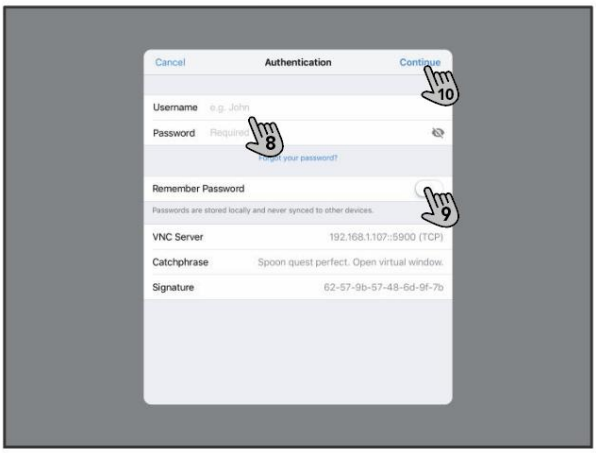
You have now created a connection profile.



6. Click the connection profile with the name you entered in step 3.

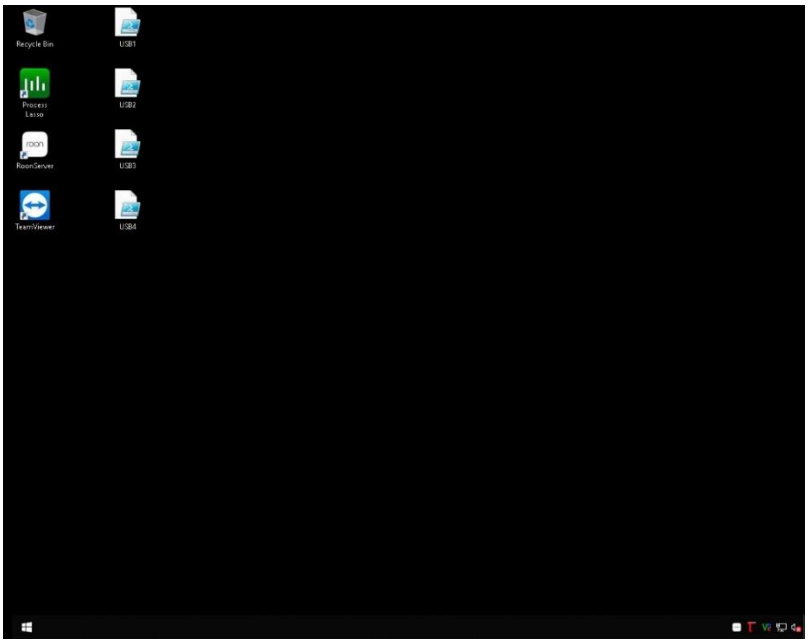


7. Click on *Connect*.



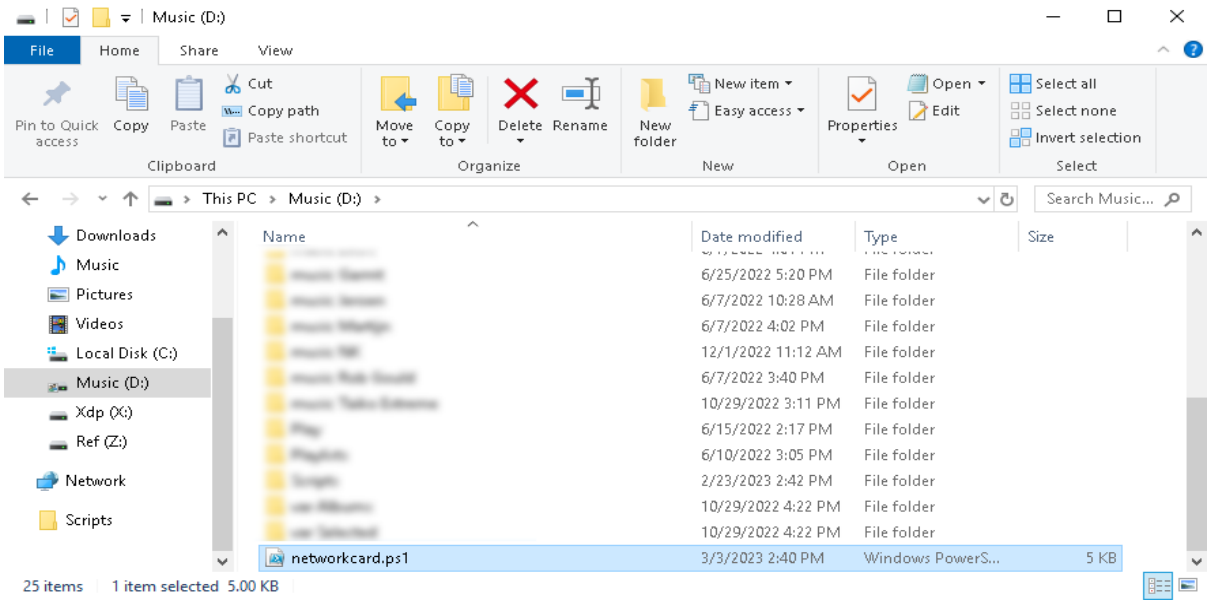
Tip If you don't know the VNC name and password of the server, contact your supplier.

8. Enter the VNC name and password of the server (Administrator - SoundTest).
9. Select *Remember password*.
10. Click *Continue*

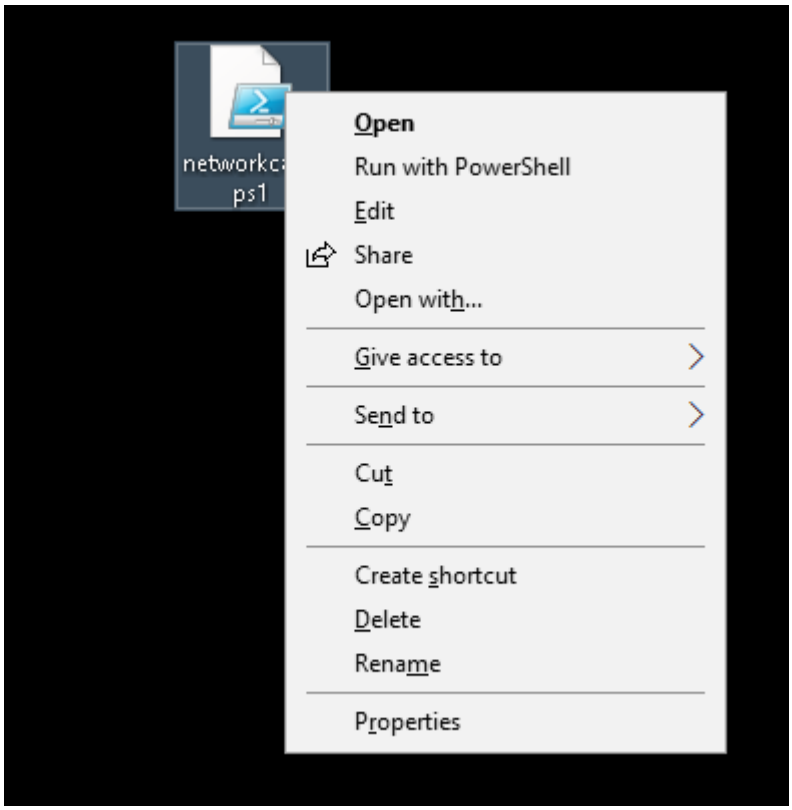


The desktop of the server is shown and can now be controlled.

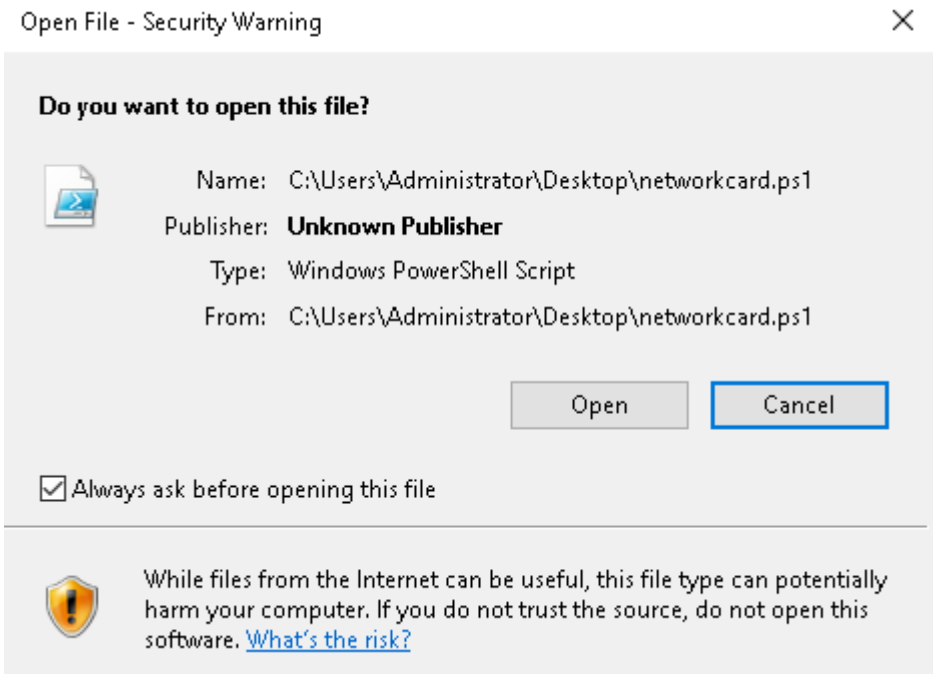
On the Extreme Desktop, open an Explorer window (Windows-E) and navigate to the Music (D:) drive. Then, simply drag the installer file that you downloaded earlier from the Music drive window onto the Extreme desktop.



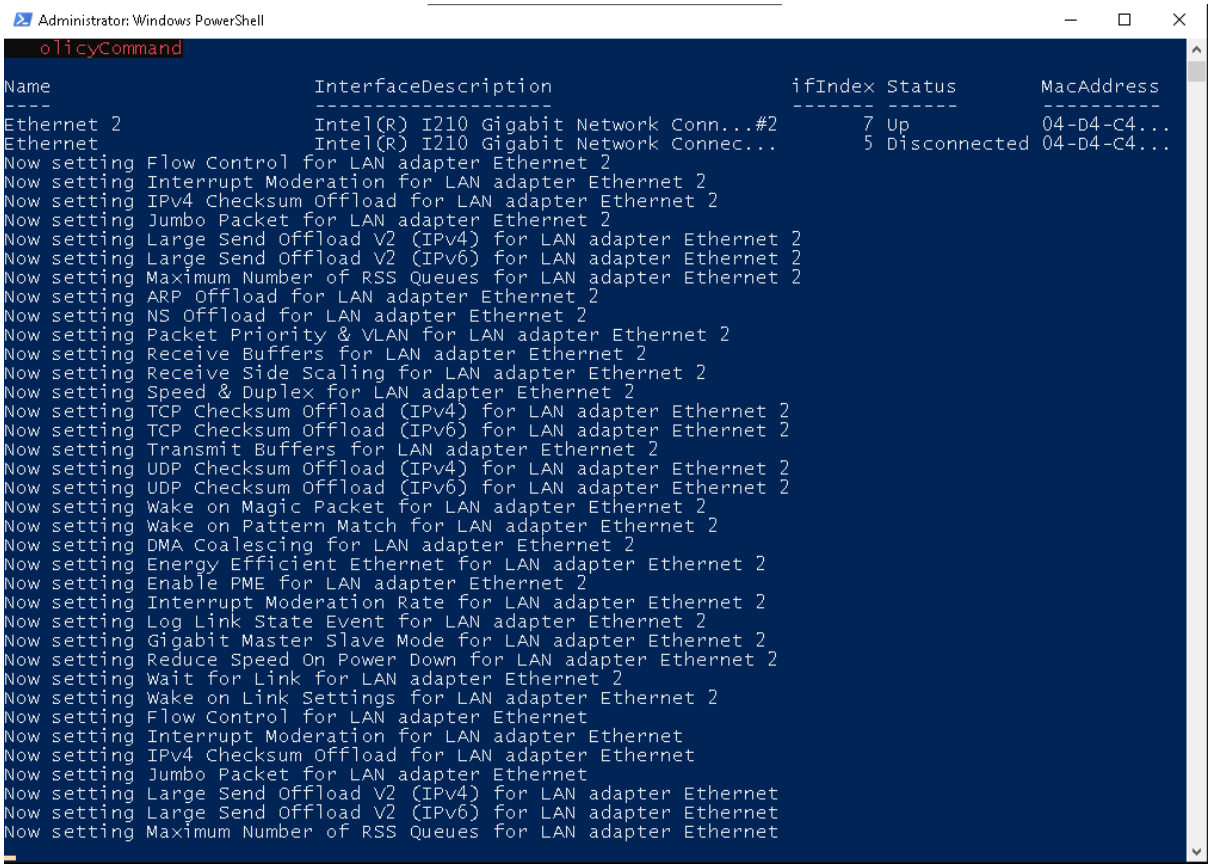
From the Extreme Desktop, right-click the installer file that you just copied and select “Run with PowerShell”.



In the security prompt, click Open.



The PowerShell script will run and soon thereafter, the Extreme will automatically restart.



After this, you're done, and your new Taiko Audio Extreme Network Card is installed. The file only addresses the Extreme Network Card and it will not affect the old network card.

Switching between the old Network port and the Extreme Network Card

Contrary to any other network cards that may previously have been installed and which should be removed, the Extreme's standard LAN 1 and LAN 2 network ports (which are a native part of the motherboard) remain active and can be used for comparative purposes by swapping the network cable from one to the other. However, as the new network card has a different Mac address associated with its hardware, and thus gets assigned a different IP Address by your router, you will need to restart the Extreme to register the new address.

Caution - Dynamic versus Static IP Address

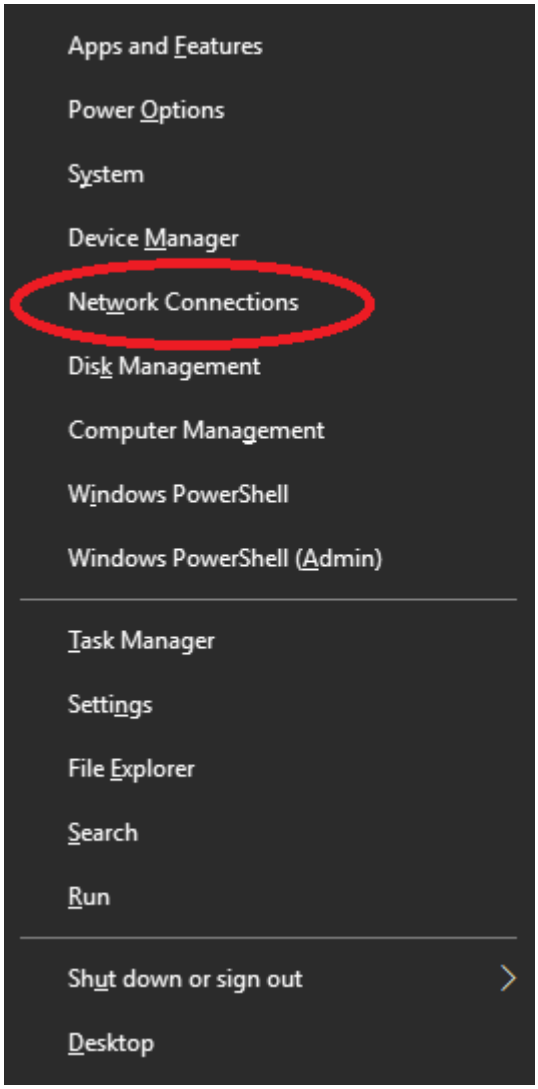
The Extreme is normally set to use DHCP and thus be assigned an IP address dynamically by your router, and you would never have to worry about this. After fitting the new Extreme Network Card, installing the script, and having restarted the Extreme (automatically prompted by the script), your router will register the Extreme Ethernet Card and simply issue a new IP address for the new hardware.

Some users like to use a Static IP Address. Please be mindful that the new network card has a different Mac address associated with its hardware, and thus gets assigned a different IP Address by the router (if set to DHCP) or will need to get assigned a different IP Address manually in the same place where you set it to fixed prior. This could be in the Router or in the Extreme's Windows settings for the old Network card.

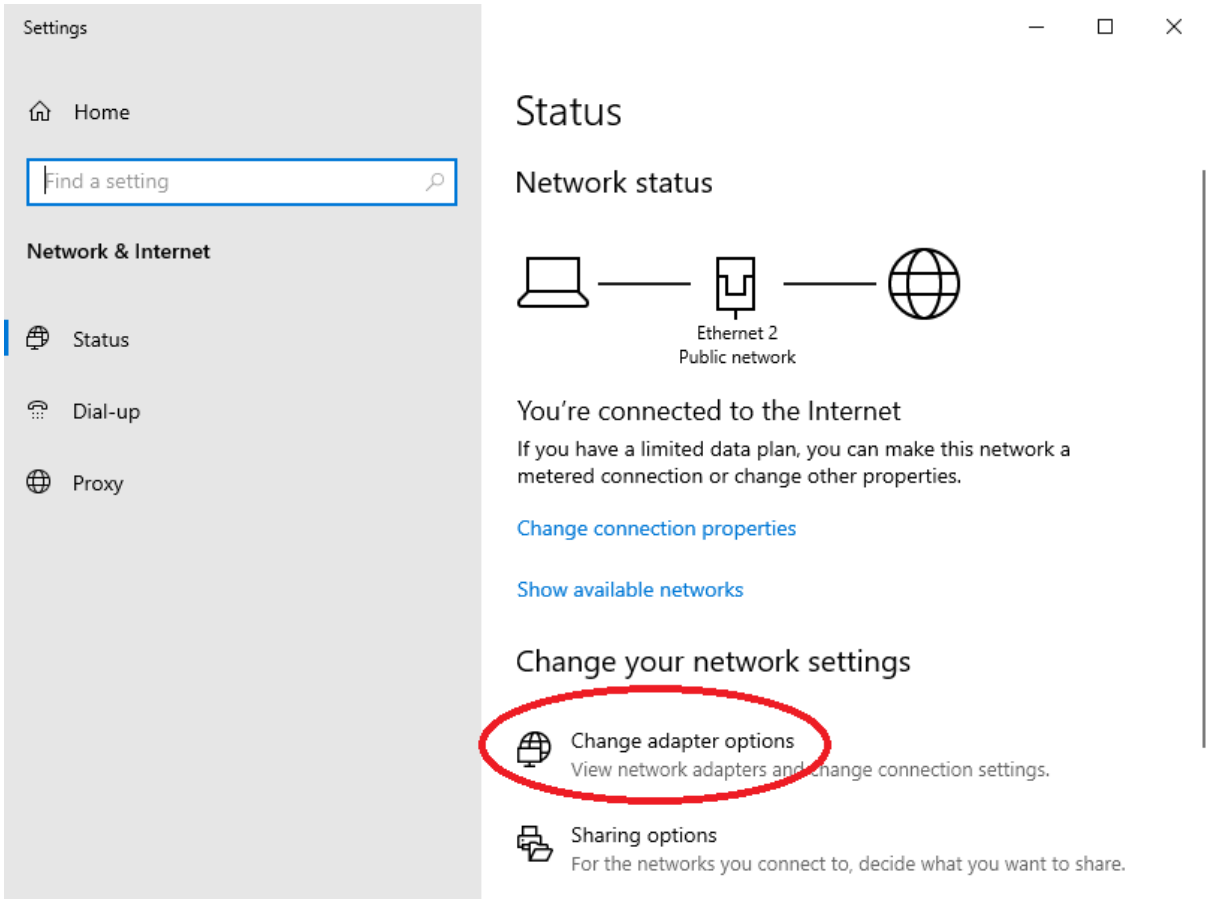
How to the network connection speed

You can see the uplink speed in the Extreme Music Server's network adapter properties.

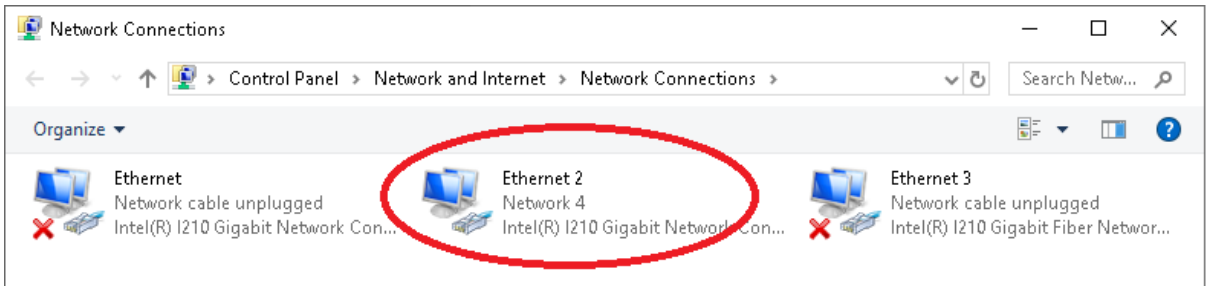
VNC to the Extreme, locate the start menu and right-click the windows icon. Mac users can either double-tap the Trackpad or use Control-Click. In the menu that pops up (which is different from the normal start menu), select Network Connections.



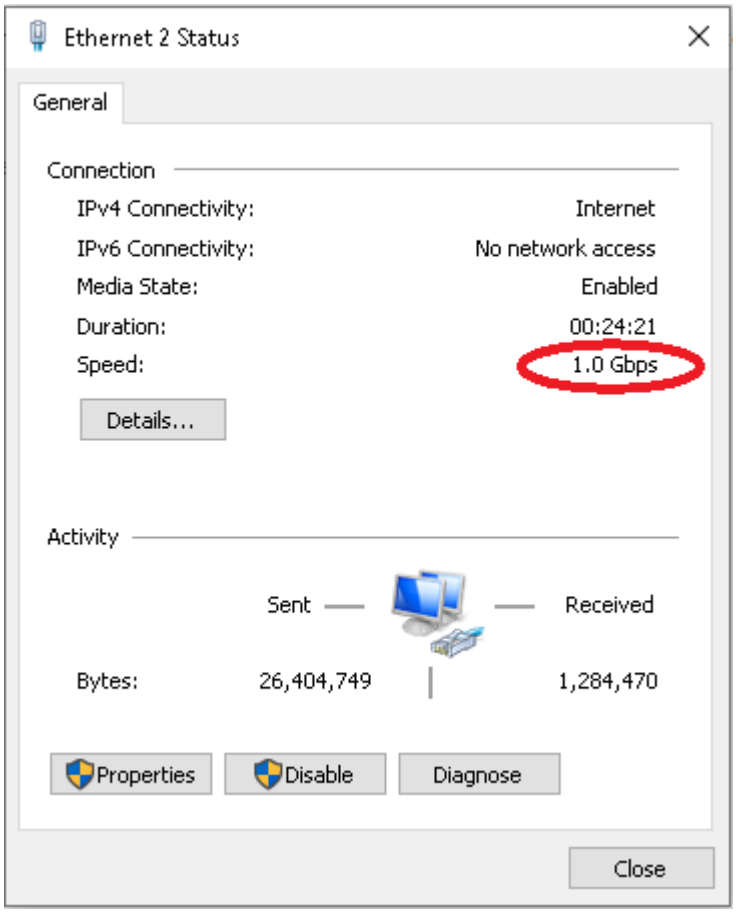
In the Network Connections popup, click "Change Adapter options".



In the next popup, double-click the functioning Ethernet Connection (the one that does not have a cross), in this case Ethernet 2



The next popup shows the speed under the Connection header



When done, simply click away all open windows with the top-right X.