

Quick Start Guide

SharkTapUSB 10/100/1G



Connect the NETWORK ports of the SharkTap to the link to be monitored, shown as A <-> B below. Plug the USB TAP cable into a USB 3 port on your PC (USB 3 jacks typically have a blue insert). The USB connection provides both power and a virtual Ethernet port for network sniffing.

You may be able to work with a USB 2 port, with the following caveats:

- 1) The SharkTap draws up to 750mA, which exceeds the USB 2 limit of 500mA. Many USB 2 ports will handle this easily, but if the SharkTap port lights are flashing on and off, you probably don't have enough power.
- 2) USB 2 will only provide 300-400Mbps throughput. This is ok for 10/100 sniffing, but not for a gigabit link.



Device Driver:

The SharkTap will show up on your PC as a new Network Adaptor. On Windows 7 or later, Windows Update will automatically install a driver the first time the SharkTap is plugged in. The SharkTap uses the industry standard ASIX AX88179 Gigabit Ethernet Adapter chip, which has mainstream support.

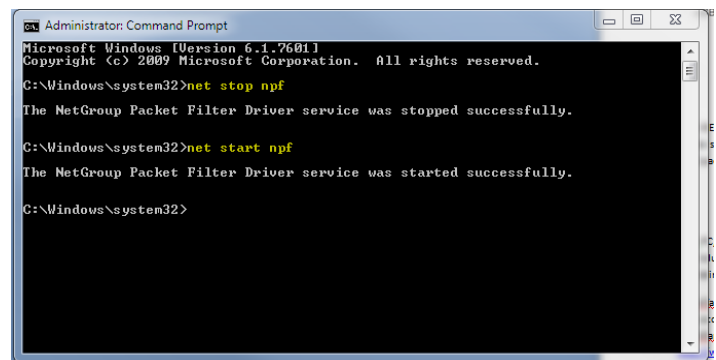
Once the driver is installed, configuring the SharkTap is identical to configuring a built-in Ethernet port. You don't need to assign an IP address or other network configuration, unless you want to use the SharkTap as a Network Interface (see next page). The midbittech.com/usb website includes expert information for setting up your network adapter for the cleanest WireShark experience, but you don't *need* to do any of that. Wireshark or other capture software will set the network port to capture all packets, so settings are largely irrelevant.

For recent **Linux** distributions, the SharkTap will "just work" and show up as `usbx`, or `enx70b3d5ebxxxx` if you have 'predictable interface naming'. You do not need to configure an IP address, and probably don't want to. AX88179 support has been part of the official tree since 2.6

(Note: Any packets generated by your PC will not actually be routed to the NETWORK ports).

For older Windows or Linux machines, or other OS's, ASIX provides driver support at <http://www.asix.com.tw/download.php?sub=driverdetail&PitemID=131>

WinPCap Driver: Wireshark, on Windows, includes a software driver called WinPCap that may not recognize the SharkTap until it is restarted. You can restart your Windows PC, or you can open a Command Prompt with supervisor privileges (right click on the command prompt icon, select 'Run as Administrator'), and type 'net stop npf' <enter> then 'net start npf' You should only need to do this the first time the SharkTap is plugged into your PC.



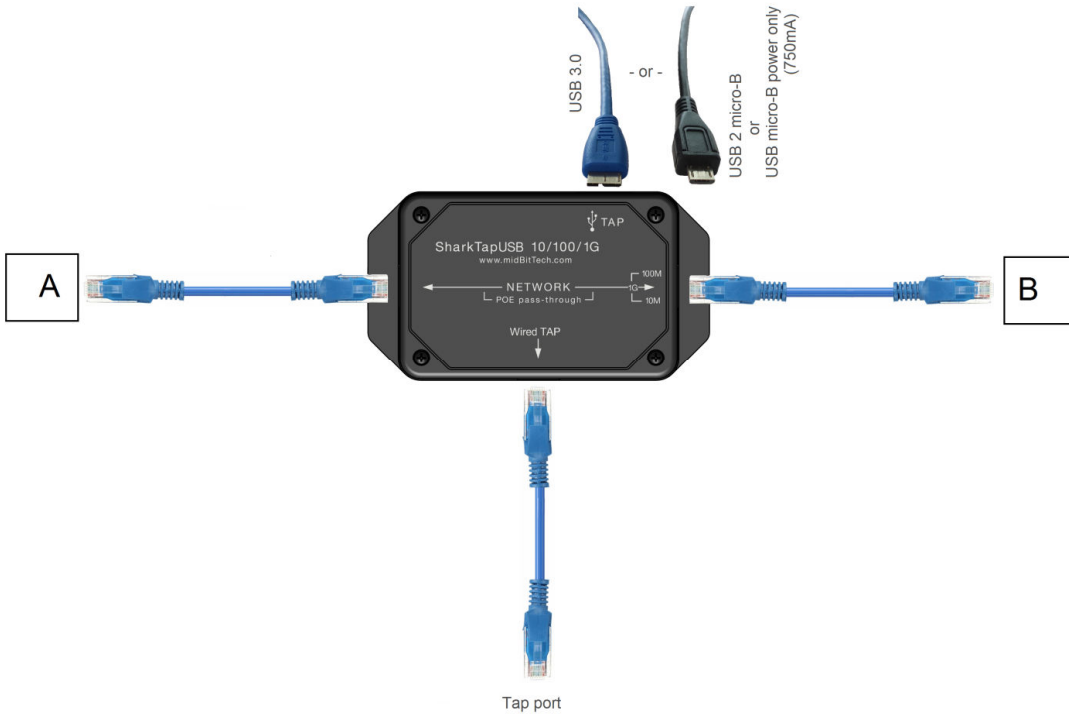
```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>net stop npf
The NetGroup Packet Filter Driver service was stopped successfully.

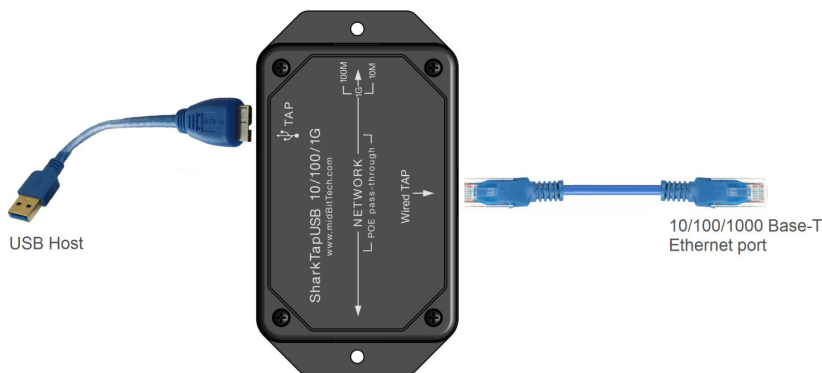
C:\Windows\system32>net start npf
The NetGroup Packet Filter Driver service was started successfully.

C:\Windows\system32>
```

Wired TAP mode: If you plug a cable into the 'Wired TAP' port (and the SharkTap establishes a link), the Wired TAP port will become the mirroring port. In this mode a USB host is not needed – the USB port only requires power.



Ethernet Adapter mode: The SharkTap can also be used as a network adapter. Both NETWORK ports must be left unconnected in this mode. Functionally, the only difference in this mode is that the SharkTap will route packets *from* the USB Host. In TAP mode, the SharkTap will only send packets *to* the USB Host.

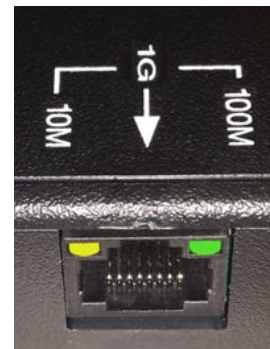


Indicators:

The Red LED glows when power is applied. The SharkTap uses the standard 5V power from a USB port, and draws 750mA or less current.



Each port jack has two LEDs. At least one LED is on when there is a valid link connection. (Note that the SharkTap has a feature called MDIX, meaning that it will automatically crossover Tx and Rx pairs, so no crossover cable is ever needed.) The Yellow LED (only) is on if the link is 10Base-T. The Green LED (only) is on if the link is 100Base-T. Both LEDs are on if the connection is 1000Base-T. The LED(s) will blink when there are packets sent or received on that port.



Power Over Ethernet: If there is DC power on the NETWORK ports (a VOIP phone system, for instance), it will be passed through. There are no settings, power is just passed through.

Speed Matching: The two Network ports may autoconfigure at different speeds, which may or may not be desirable for your purposes. You can force the higher speed Network port to run at the speed of the lower speed link. Just plug the low speed link in first and wait for its LED(s) to illuminate. The second port plugged into the tap is then limited to the first port's speed. The same thing can be accomplished by removing the higher speed port and then re-connecting it. If you want a port to remain at its higher speed, connect it first, then connect the slower port. Disconnecting both Network cables will reset the speed matching logic.

The Wired-TAP port will always connect at the maximum speed.

Questions? Send us an email at support@midbittech.com

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