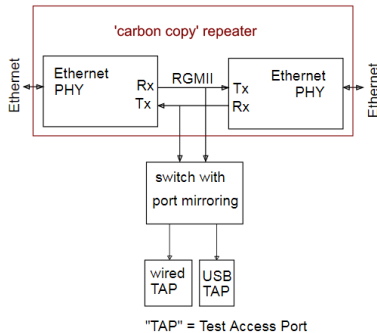


Quick Start Guide

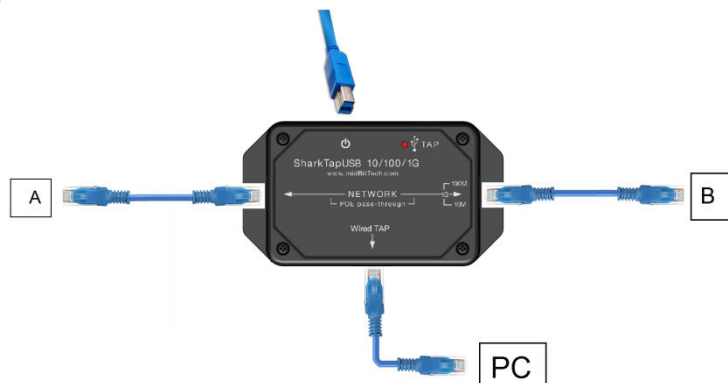
SharkTapUSB 10/100/1G



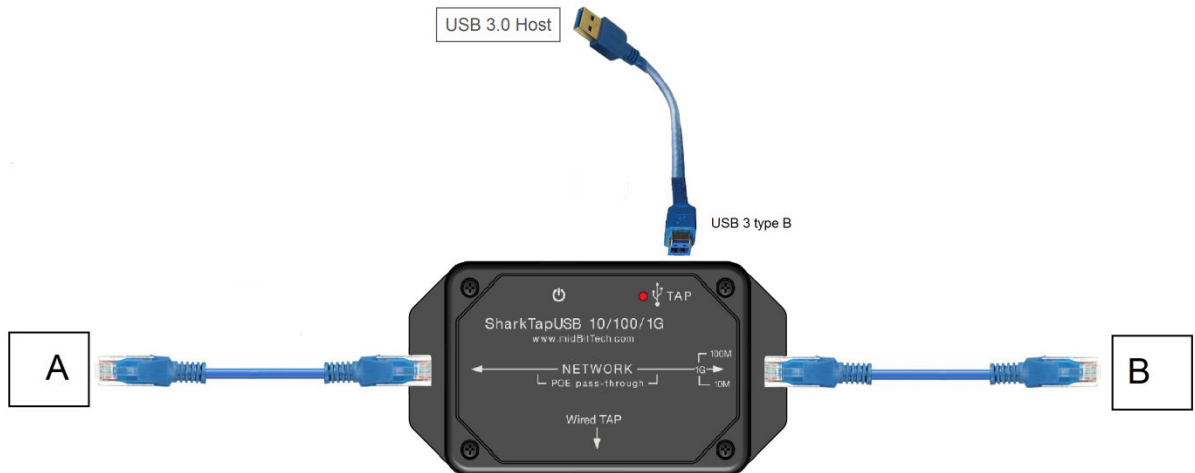
The SharkTapUSB uses a copper repeater technology between the two NETWORK ports. So these ports get bit-accurate copies of each other. The two ports are also connected in parallel to a switch chip, which makes copies of all packets and transmits them to one or both Test Access Port (TAP) connections. You can use the “Wired TAP” port to deliver these packet copies to a standard ethernet port, or they can be delivered to a virtual ethernet port via USB.

To use the Wired TAP port:

- 1) Connect the NETWORK ports of the SharkTap to the link to be monitored, shown as A <-> B below. Connect the existing network cable to A or B, then complete the network connection using a patch cable from the opposite port.
- 2) Connect an RJ45 from the Wired-TAP to your PC ethernet port, or other capture device.
- 3) Connect the supplied USB cable to the black-insert USB jack. You can connect the other end to any USB port on your PC. The SharkTap only uses power from this connection, not the USB signals. You can also use a cell phone charger or other ‘wall wart’ that accepts a USB type A connection. The current draw depends on the speed of the links, but the worst case is less than 500mA (worst case is three 1000Base-T links, no EEE)
- 4) Your PC ethernet port does not need an IP address, nor any protocol configuration. There is no communication to the SharkTap, just copies of Network packets duplicated on the Wired TAP port. Programs like Wireshark will set your PC port to “promiscuous mode” where it simply passes along all packets received.



To use the SharkTap in USB mode:

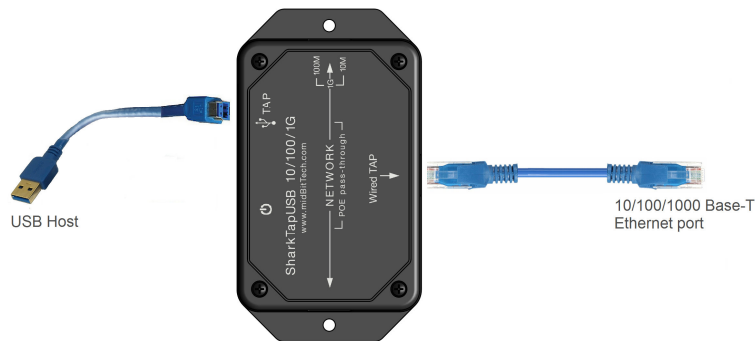


- 1) Connect the NETWORK ports of the SharkTap to the link to be monitored, shown as A <-> B below. Connect the existing network cable to A or B, then complete the network connection using a patch cable from the opposite port.
- 2) Connect the USB Tap port to a USB 3 host port with the blue USB provided (or equivalent). You can use a USB 2 port, but USB 2 will only provide 300-400Mbps throughput. This is adequate for 10/100 sniffing, but you may lose mirrored packets on a gigabit network, depending on the amount of traffic. (Packets will never be dropped on NETWORK ports, only on the USB Tap port)
- 3) You can connect a cable to the black-insert USB jack as well to provide backup power. In a permanent installation you might maintain power with this cord and only insert the USB3 (blue) cable when you want to view packets.
- 4) See "USB Device Driver" section below for the configuration of your USB connection.

You may want to use the USB port even if you have a wired ethernet port: You can leave your wired port configured for networking and configure the virtual USB adapter for cleanest data capture.

Ethernet Adapter mode:

As a convenience, the SharkTap can also be used as a network adapter. Both NETWORK ports must be left unconnected in this mode. The USB port will not report the status of the 'Wired TAP' port, but will otherwise work like a USB-ethernet adapter.



General Notes:

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: Unlike some of our other models, the SharkTapUSB must have both Network ports running at the same speed. A higher speed port will automatically re-negotiate down to match the speed of the lower speed port. Disconnecting both Network cables will reset the speed matching logic.

The TAP port will always connect at the maximum speed.

USB Device Driver:

When connected to the blue-insert USB jack (with the USB logo), 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 an industry standard Realtek Gigabit Ethernet Adapter chip, which has mainstream support.

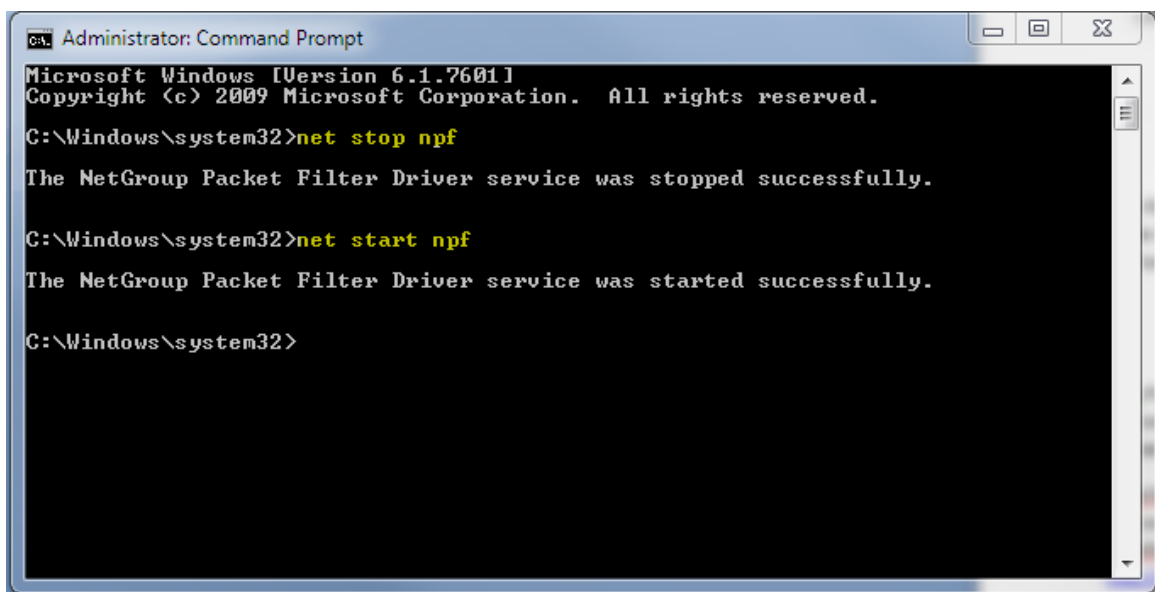
Once the driver is installed, configuring the SharkTap is identical to configuring a built-in Ethernet port. You don't need to assign an IP address or other network configuration. Our website, <http://www.midbittech.com/usb/> provides expert tips for setting up your network adapter for the cleanest WireShark experience. Wireshark or other capture software will set the network port to capture all packets, so any protocol settings are 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. RTL8153 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, Realtek provides driver support at <https://www.realtek.com/en/component/zoo/category/network-interface-controllers-10-100-1000m-gigabit-ethernet-usb-3-0-software>

WinPCap Driver: Wireshark, on Windows, includes a software driver called WinPCap that may not recognize the SharkTap until the PC is restarted. You can avoid doing a restart as follows: 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.

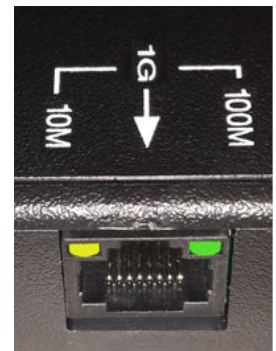
C:\Windows\system32>
```

Indicators:

The Red LED glows when power is applied, from either or both cords. The SharkTap uses the standard 5V power from a USB port, and draws 500mA 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.



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

www.midbittech.com

Warranty Information: We do not warrant SharkTap performance or suitability for any purpose. You are given 30 days from purchase, during which time you can return the SharkTap for any reason. Evaluate the SharkTap: If you like what it does, keep it. If not, return the SharkTap for a refund. If, during the first year, the SharkTap stops doing what it used to do, due to defect in materials or workmanship, we will replace it for free.

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