

Quick Start Guide

SharkTapSFP+ 10M-10G



Basically, you plug in 4 SFP or SFP+ modules and connect power, in any order.

- Power is provided by standard USB type B connector. You can use a phone charger type of wall supply, or a USB port on a PC. The SharkTap itself uses very little power, but can supply up to about 3W to each module, so your total current draw is determined by the modules you use. The SharkTap will accept either a USB 2 or USB 3 type B connector, but the USB 3 data signals are not used. The USB port exposes a CDC device (UART) which you can use or ignore. More information on that below.
- All ports are “hot plug”, meaning that you can add or remove a module at any time without powering the SharkTap down.
- You can add or remove either or both of the “Carbon Copies” modules without disturbing the connection between NETWORK A and B
- The 4 modules must all be SFP or SFP+. You cannot mix SFP and SFP+. You CAN mix different media interfaces (Fiber and Copper, for example), as long as both modules are SFP or both SFP+.
- We recommend the use of direct attach cables (DAC), especially for the Carbon Copies ports, but only up to about 3M (9 feet). DAC are near zero power and delay, but cannot run long distances. A 10G capable DAC (SFP+) will also work for 1G SFP.
- We do not recommend using 4 copper (Base-T) modules at once. The 10G Base-T modules get VERY hot. You will need an external fan if you run 4 10G copper modules at once.
- There is no difference between ports A & B. They are just marked for convenience. Carbon Copy A duplicates data received on the A port, and Carbon Copy B duplicates data received on the B port.



The UART port:

The SharkTap will expose a CDC (UART) port on the USB connection. The UART will show up as COMxx on Windows PCs and dev/ttyxx on POSIX machines. You can connect with freeware programs like putty or teraterm. You can ignore line speed and parity and the like, as this is a virtual software UART.

The UART will print out the model information of each module, helping you to keep track of what you've installed in the SharkTap. There is also an API that gives you access to all the I2C and gpio status and control of each module. Since there is such a wide variety of modules available, support for module features must be provided by external programs that access the API. This API is document separately:

www.midbittech.com/files/SFP/USB_API.pdf

Indicators:

The LED glows orange (red + green) when power is applied. If the voltage falls below about 3.5V, the green LED will go out. So solid red (instead of orange) means the USB supply is inadequate or a module is drawing too much current.



The green LEDs to each side of each port reflect the link state of each module (called "Loss of Signal" in the SFP specification). The LOS signal is defined by the SFP module. For a DAC cable it usually just mean the module is correctly plugged in, while Fiber or Copper modules will light the Link LED when a connection is made with the remote module.



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

www.midbittech.com

We do not warrant the SharkTap for any particular purpose. Instead, we give you 30 days to try it. If you like what it does, keep it. If not, return the SharkTap during the 30 days for a full refund, no questions asked. During the first year, if the SharkTap stops doing what it did at first due to defects in materials or workmanship, we will replace it for free.

