

Passive Taps Tutorial

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Optical fiber taps are a passive Physical Layer devices. Each tap consists of two beam splitter assemblies - one for each side of the fiber pair. These terminate in the bulkhead that houses the dual SC or LC connector pairs. There are no transceivers or any other active devices in the signal path on the tapped link.

Many passive taps are non-powered devices, while some convert the optical to electronic signals. These powered fiber taps still do not affect the network link during loss of power, since the tap assemblies are splitting light in two directions and do not require any power for this function.

Optical splitters are, by virtue of the manner in which they are constructed, directional devices.

Simple non-aggregating optical taps provide two Tx data stream outputs that are connected to two separate monitor or capture cards on the monitoring tools.

These data streams are connected only to the Rx side of the Rx/Tx connector pair on the capture card - the Tx side remains unpopulated. Thus the monitoring tool is incapable of sending any signals back onto the tapped link and bi-directional traffic is physically impossible.

