

### Are there any special configuration steps necessary for the GigaTAP-TX?

**Answer:** Yes, please read the following excerpt from the Users Guide thoroughly.

The GigaTAP-Tx module provides the ability to tap a copper Gigabit Ethernet link, copying traffic to specified tool ports as it flows through the tap. There are two pairs of RJ45 connectors for tapping two different links.

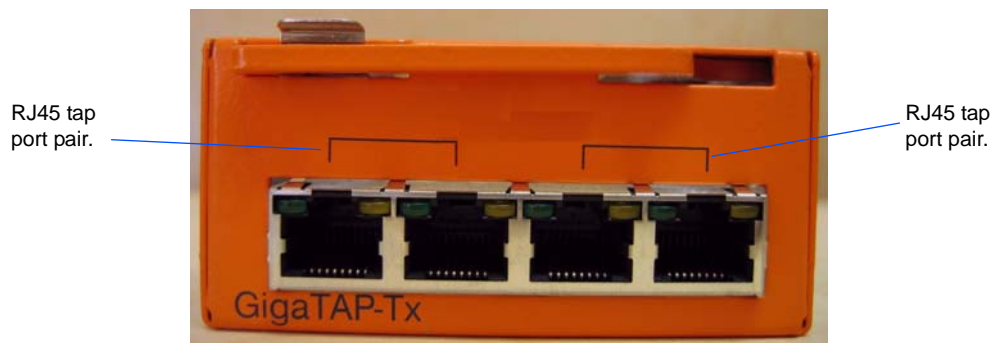


Figure 5-10: The GigaTAP-Tx Module

### Passive Mode vs. Active Mode

By default, the ports in the GigaTAP-Tx module operate in **passive mode** instead of **active mode**:

- In **passive mode**, the relays in the GigaTAP-Tx module are closed. This means that traffic received on one port is repeated out the other port in the pair but is never seen by the GigaVUE – it simply flows between the two ports.

Passive mode protects production links in case of power failure. The tap will always revert to passive mode in the event of power loss.

**NOTE:** The Link and Activity LEDs are always off when the GigaTAP-Tx is operating in passive mode.

- In **active mode**, the relays in the GigaTAP-Tx module are open. Traffic received on one port is actively regenerated out the other port in the port-pair. In addition, it flows through the GigaVUE, making it available to tool ports.

## Configuring Tap Connections

There are two main configuration steps when tapping a link with the GigaTAP-Tx:

- *Set up the Port-Pair*
- *Verify End Node Status and Open the Relays*

### Set up the Port-Pair

A port-pair is a bidirectional connection in which traffic arriving on one port in the pair is actively regenerated out the other (and vice-versa) as a pass-through tap. Without a port-pair in place, traffic arriving on one port will not be regenerated out the other. So, the first step in tapping a link is to set up the port-pair with the **config port-pair** command:

```
config port-pair <port-alias1|pid1> <port-alias2|pid2> alias <string>
```

#### Notes on Port-Pairs

- Port-pairs can be established between any ports on the same GigaVUE-420.
- On the GigaVUE-MP, paired ports must be in the same module. Because of this restriction, it is not possible to pair a 10Gb port with a 1 Gb port because there is no module with both of these ports.
- Port-pairs support link status propagation – when one port goes down, the other port goes down (and vice-versa).
- Port-pairs between GigaMGMT or GigaPORT ports can be used as an electronic tap for RJ45 or fiber-optical links, although without the fail-over protection provided by the GigaTAP-Tx and GigaTAP-Sx/Lx/Zx.
- Port-pairs can be established between ports using different speeds (for example, from a 100 Mb port to a 1 Gb port).

**NOTE:** Depending on traffic volume, port-pairs between ports using different speeds can cause packet loss when going from a faster port to a slower port (for example, from 1 Gb to 100 Mbps, from 10 Gb to 1 Gb (GigaVUE-420 only), and so on).

## Verify End Node Status and Open the Relays

The next step is to open the relays for the ports used to tap the link. **Before doing so, however, check the link status LEDs on both end nodes connected to the port-pair ports to verify that they are operating correctly. The links must be good for failover protection to function properly.**

If the link status on the end nodes is not good (LEDs are not green), check the following:

- Verify that the combined cable length is less than 100 meters.
- Verify that autonegotiation settings match. If autonegotiation is not enabled on one of the endpoints, you must manually configure the **port-params** of the connected tap ports to match, followed by a **config save**. See [config port-params commands in the Users Guide on page 388](#) for details.
- Most newer Ethernet interfaces support autosensing (Auto-MDI/MDI-X; part of the 1000BASE-T standard). However, if your equipment does not support this feature (or it is disabled), you may need to use a crossover cable.
- Open the relays for the ports used to tap the link in the GigaTAP-Tx using the **config port-params <port-id> taptx active** command, followed by a **config save**. Once you have opened the relays, verify that the green link LEDs for both ports in the port-pair have illuminated.

# Gigamon FAQs

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## Set up Connections/Maps for Both Ports

Once you have set up a port-pair, make sure to logically connect both ports in the port-pair connection to tool ports. Only the receive traffic is forwarded through the connections, so it's important to connect both sides of the port-pair to tool ports to see both sides of the traffic.

### Example:

For example, consider the tap scenario shown in [Figure 5-11](#) :

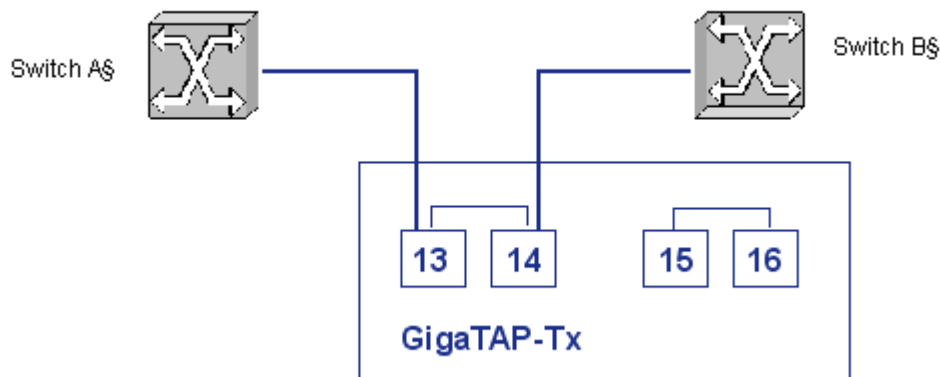


Figure 5-11: Example – Tapping a Link with the GigaTAP-Tx

- The GigaTAP-Tx is installed in the **Port 13 - 16** slot in the GigaVUE.
- The tap is set up between ports 13 and 14.

To set up this tap scenario, you would issue the following commands in the GigaVUE CLI:

Command	Description
<code>config port-pair 13 14 alias switch-tap</code>	This command sets up the port pair between ports 13 and 14 so that traffic received on 13 is repeated out 14 (and vice-versa). In this example, we've given our port-pair the alias <b>switch-tap</b> .
<code>config port-params 13 taptx active</code>	This command opens the relays on port 13 and the adjacent port (14).

