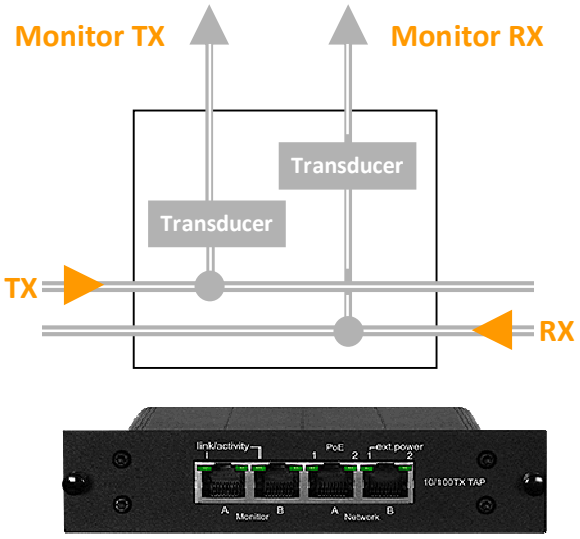
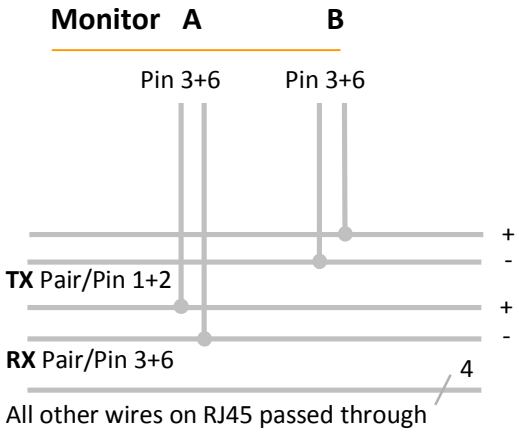
10/100 Copper TAP Operation:





- 10 or 100BaseT Communication is defined to **2** dedicated, **unidirectional** Transmit&Receive wire pairs
- Both Monitor outputs are „straight“ connected to 10/100 Link of Input Ports.
- Galvanic separation of Monitor Ports by Transducer.
- From TAP point of view, there is no difference on Linkspeed 10 or 100Mbit
- Each Monitor Port holds Line‘s TX and RX from the monitored Link to RX Pin‘s 3+6 of RJ45.
- Monitor Ports do not use TX Pair (Pin 1+2) at all

About Latency and Delay

10/100 TAPs do <u>not</u> add latency to the network, nor add a delay on monitored data at output

FAQ:

802.3af PoE : TAP does not interupt PoE Implementation

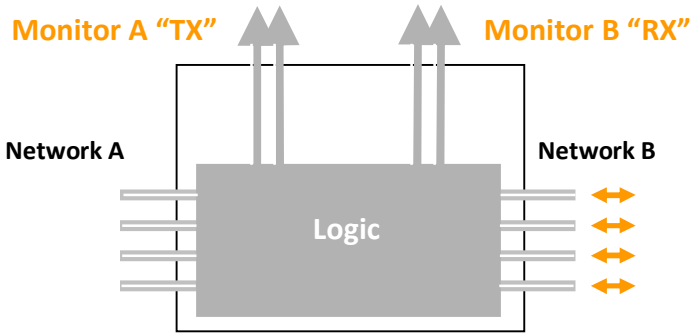
VoIP compliant : TAP does not interfere on VoiP applications

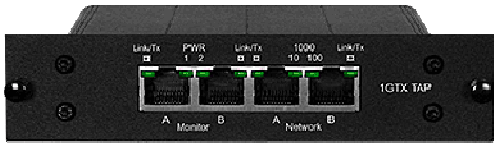
Analysers: any appliance require a dual channel (Multi NIC, 2 separated NICs or special CaptureCard) to concurrently monitor TX and RX

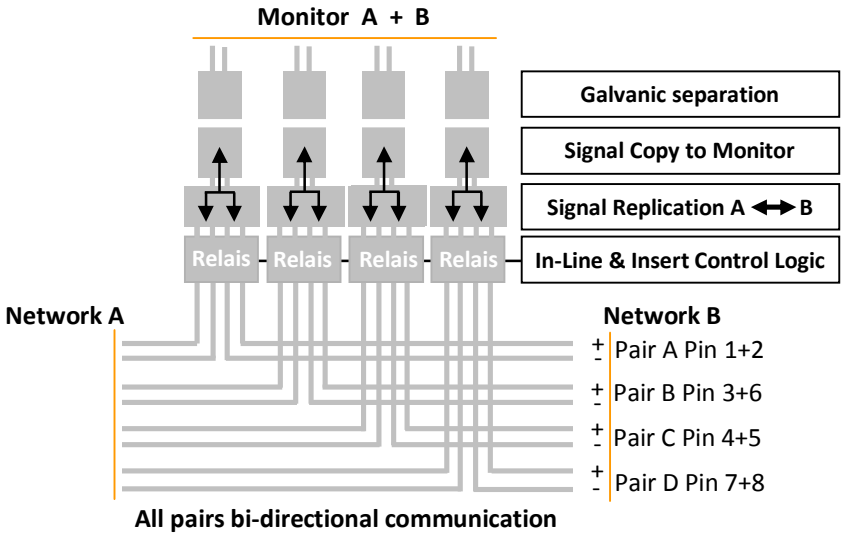
PROFI TAP
Connectivity for Monitoring Tools

Tapping in Networks – Basics about 10/100/1000(GigaBit) TAPs

10/100/GigaBit Copper TAP Operation







• GigaBit 1000BaseT is **bi-directiona**l communication defined to **4** dedicated wire pairs

• Once the TAP is installed, it inserts to all 4 circuits after verification of linkspeed negotiation at power on.

• relais toggle state between „offline" and „inserted" mode. **Link may get lost, packets may get lost during switching states.**

• The bidirectional Traffic is regenerated in both link directions – this is the truth at gigaBit Taps

• Monitor Output outputs are replicated signals, the circuitry and logic prevents Monitor to Link signaling.

About Latency and Delay

Consider a 10/100/GigaBit TAPs to add a constant latency (bitlength) to the network and a delay on Output of appr. 350nS for the monitored data.

FAQ:

802.3af PoE : TAP does not interupt PoE Implementation

VoIP compliant : TAP does not interfere on VoiP applications

Analysers: any appliance require a dual channel (Multi NIC, 2 separated NICs or special CaptureCard) to concurrently monitor TX and RX

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