



# High-Density Fiber-Optic TAP

Passive traffic access designed specifically  
for Enterprise networks



## General

While used by service organizations and IT professionals for years, fiber-optic TAPs were not generally deployed with networks as their density was lower than the switching infrastructure they supported. The XenOpt Solutions High Density (HD) TAP changes this by providing 12 dual fiber TAPs in a 1U rack-mountable chassis.

XenOpt LGX TAPs provides high densities while still maintaining modular construction. This allows for TAP installation within networks also at deployment time, creating a permanent, fail-safe, and passive access point to network traffic. With the TAPs installed, the network has connection points for protocol analyzers, network monitoring devices, and intrusion detection/prevention systems, without the need to stop the network.

TAPs operate by passing network traffic while diverting some of the signal to a TAP monitoring port to provide a copy of the traffic. Fiber-optic TAPs are completely passive, that is not powered. Network traffic continues to pass through the TAP regardless of the state of the power to the rest of the network, creating a failsafe traffic access point that will not introduce a point of failure. Also, fiber-optic TAPs are transparent to data stream and, therefore, will not interfere with network performance.

The XenOpt LGX TAPs provides full line-rate access to traffic for Enterprise fiber-optic networks regardless of transfer speed and line format used.

They are fully compatible with all fiber-optic intrusion detection/prevention systems (IDS/IPS), protocol analyzers, and network monitoring devices.

## Features

- Provides passive access to fiber-optic network traffic that will not cause a point of failure
- Enables dynamic connection of analysis, monitoring, and security devices into networks
- Minimizes space with up to 12 dual fiber TAPs in a modular 1U rack mount configuration
- Shows all traffic, bit-for-bit, unlike Mirror or SPAN ports
- Preserves network switch equipment investment by allowing all switch ports to be utilized for business use rather than for SPAN or Mirror port functionality
- Up to 10 G passive network access



When switching equipment is used to monitor traffic using SPAN or mirror functionality, there are many physical-layer and formatting errors (runts, fcs, jabber, .... in some cases jumbo packets) that are not passed through switching equipment. This can mask the real reason for network problems. Using TAPs, traffic is passed to monitoring equipment bit-by-bit with all errors present, so that monitoring equipment can detect and log all errors on monitored line.

TAPs are available with an optional rack mount chassis that allows direct insertion into an Enterprise cabinet.

The TAPs are available in LGX box with two to four dual fiber single side TAPs in each box. Up to three LGX boxes can be mounted in 1U rack chassis that enables densities as high as 12 dual fiber TAPs in a 1U rack space.

**Specifications**

<b>TAP:</b>	
Operational temperature	+5 to +40°C (+50 to +140°F) <sup>1</sup>
Physical Dimensions	LGX box
Fiber Core dimension/wavelength	62.5 μm/850 nm, 50 μm/850 nm, 9 μm/1310 nm, 9 μm/1550 nm

<b>Chassis:</b>	
1U chassis Holds 3 up to Quad TAP units	
Chassis measurement	19"W x 1.75"H x 6.25"D

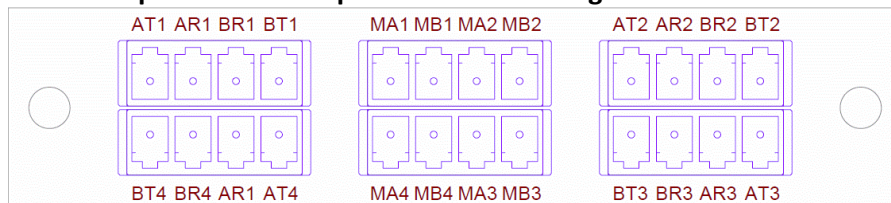
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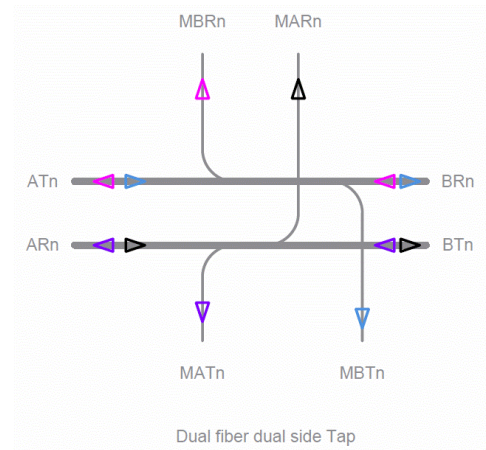
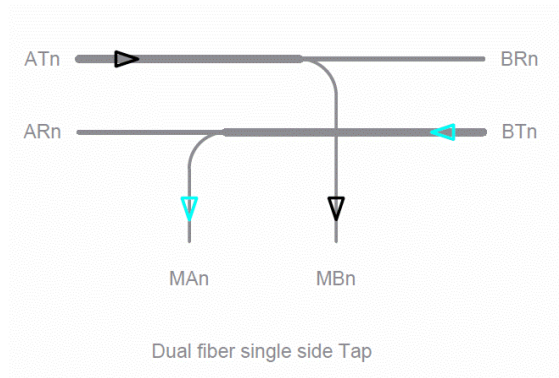
1 Extended temperature range options are available on request.

**Optical parameters:**

Pass Ratio	Pass attenuation				Tap Ratio	Tap Attenuation			
	SM Typ	SM Max	MM Typ	MM Max		SM Typ	SM Max	MM Typ	MM Max
50%	-3,6	-4,1	-4,5	-5,0	50%	-3,6	-4,1	-4,5	-5,0
60%	-2,7	-3,2	-3,6	-4,1	40%	-4,7	-5,2	-5,6	-6,1
70%	-2,0	-2,4	-2,9	-3,3	30%	-6,1	-6,6	-7,0	-7,5
80%	-1,4	-1,7	-2,3	-2,6	20%	-8,0	-8,6	-8,9	-9,5
90%	-0,8	-1,1	-1,7	-2,0	10%	-11,3	-12,1	-12,2	-13,0

**Connector placement example – 4x dual fiber single side TAP**





There are two versions of TAPs available:

**Dual fiber single side Tap** is standard version that is being used for monitoring standard dual fiber connections.

**Dual fiber dual side TAP** is needed for communication lines that pass data bidirectional, like BIDI SFFPs/SFP+ pluggables and single fiber CWDM and DWDM communications. These are marked as dual fiber only to be compatible with usual fiber use, but are used predominantly as two single fiber dual side taps.



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## Ordering information<sup>1</sup>

### Link Power Budget Attenuation (Typical)

PN	Split Ratio <sup>1</sup>	Connectors (N1, N2, T)	Enclosure Type	Number of D TAPs (x) <sup>2</sup>	Number of B TAPs (x) <sup>3</sup>
XTx-yz5LL	50/50	LC, LC, LC	LGX 1U	2	2
XTx-yz7LL	70/30	LC, LC, LC	LGX 1U	4	3
XTx-yz6LF	60/40	LC, LC, LC	X6500 2H	6	5
XTx-yz9L9	90/10	LC, LC, LC	19" 1U Rack	16	12

#### Notes:

- 1 Other split ratios and packing options are available on request.
- 2 Max numbers of dual fibre single side taps – 6 connections each
- 3 Max numbers of dual fibre dual side taps – 8 connections each
- y Cable type (M – multimode, S – singlemode)
- z Fiber/side (D – Dual fiber/single side, B – Dual fiber/dual side)

### Important Notice

Performance figures, data and any illustrative material provided in this data sheet are contains typical values and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. Specifications may change without notice

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