



# NEOXPacketRaven Singlemode Fiber Network TAPs

100% PASSIVE | DATA DIODE FUNCTION | CRITIS-APPROVED  
FULL NETWORK TRANSPARENCY FROM 1G TO 400G



Our Singlemode Fiber TAPs are decoupling elements for the secure and reliable tapping of network data in optical networks. These TAPs are looped into the network line to be monitored and transmit the entire data traffic without interruption and without packet loss, while maintaining data integrity.

Using conventional SPAN ports, also known as mirror ports, on the other hand, can distort the result, as this copying process works in store-and-forward mode and, for example, discards FCS/CRC faulty packets on OSI layer 2 instead of providing these Ethernet frames to the security or monitoring tool.

Our Network TAPs do not have a MAC or IP address, but work entirely on OSI Layer 1 and cannot be traced in the network without special and expensive measuring equipment. Hackers and attackers therefore have no chance. As the integrity of the outgoing data remains unaltered due to this tapping method, our Network TAPs are increasingly used in the areas of network forensics, security and monitoring.

Fiber TAPs do not require their own power supply and behave 100% passively in the network.

These models in the PacketRaven Network TAPs product family were designed as portable TAPs, but can also be installed in a 19" mounting frame in data centers using a mounting kit or on a DIN rail using a DIN rail clip.

Our passive Fiber TAPs support network speeds from 1Gbps up to 400Gbps.

These Fiber TAPs are also available in an extra-safe version (Secure TAPs). By means of an optical isolator and an optical filter, they are additionally protected against unwanted light interference.

With PacketRaven Network TAPs you get permanent network access without risk and provide e.g. your monitoring tools with 100% reliable network data - without introducing a single point of failure.

	Up to 400 Gbps
	Full Network Transparency
	No impairment of Data Traffic
	100% Network Data
	Invisible for Attackers
	Flexible to Use
	Plug-n-Play
	Failure Protection on Power Loss
	Various Split Ratios
	Fast and Precise
	Support Jumbo Frames
	Made in Germany

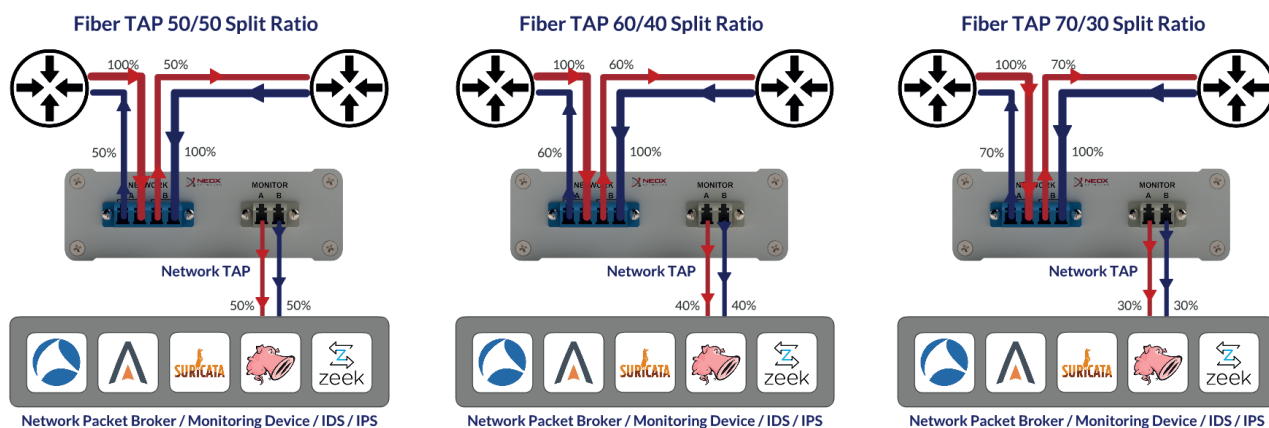
## HIGHLIGHTS

1000Base-LX/ZX - Supported network speeds: 1G, 10G, 25G, 40G, 50G, 100G, 200G and 400G
Alternative to SPAN ports - mirror 100% of traffic including FCS/CRC error packets that may be discarded by SPANs
Invisible on the network, no IP address, no MAC address, cannot be hacked
Guaranteed no packet loss
100% passive without affecting the active network connection, no additional latency
Available in different split ratios: e.g. 50:50, 60:40, 70:30, 80:20, 90:10
No power supply needed, 100% passive
Plug-n-Play, no configuration required
Support up to 16k Jumbo Frames
Various mounting options available
Designed, assembled, certified and tested in Germany

## SPLIT RATIOS / LIGHT EXTRACTION

In order to tap data from an optical network connection, it is necessary to decouple or split off part of the available light signal. Split ratio is the ratio of the amount of light that is still available for the fiber network connection in relation to the amount of light that is diverted or split off to the monitoring ports of the Network TAPs.

A split ratio of e.g. 70/30 means that 70% of the light is still available for the network connection and 30% is split off for the monitoring ports. In contrast to fiber-based monitoring ports, TAPs with RJ45/copper or SFP-based monitoring output provide 100% signal strength at the monitoring port by means of OEO conversion - i.e. conversion of the optical signal into an electrical signal.



## ADVANCED FEATURES OF THE SECURE FIBER TAPS



Optical Isolator

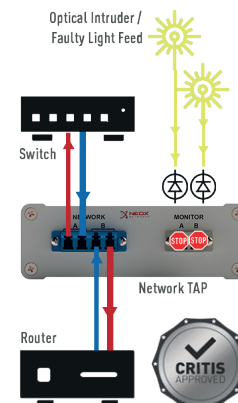
Secure Fiber TAPs have both an additional optical isolator (Data Diode Functionality) and an optical filter to ensure that unwanted incoming light signals are blocked at the monitoring port to protect the network from compromise.



Optical Filter

This protects your IT infrastructure from arbitrary or accidental tampering and ensures full data integrity.

They thus provide an additional security layer that offers increased protection against attackers and faulty configurations.



## MOUNTING OPTIONS

**!** TAPs with rack mount frame bracket or DIN rail clip can of course also be used in mobile applications!

### 1. Mobile Use

**Portable models** - these models have no special mounting options and are primarily designed for mobile use.



PacketRaven Network TAP for mobile use



Handy & portable

### 2. Server Rack Mounting

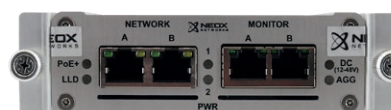
To install our portable TAPs in a server rack, you need our server rack mounting frame with item number **PRP-1U3-V2**, as well as a rackmount frame mounting kit (item number **PRP-1U3-CLIP**) for the TAP.

The server rack mounting frame PRP-1U3-V2 provides space for up to 3 portable PacketRaven Network TAPs.

Both components are available as accessories.



Server rack mounting frame PRP-1U3-V2  
for up to 3 PacketRaven portable Network TAPs



TAP with rack mounting kit for  
server rack mounting frame PRP-1U3-V2

### 3. DIN Rail Mounting

As a further alternative, we also offer a top-hat rail clip for our TAPs for mounting on a TS35/7.5 DIN top-hat rail. This clip can be rotated by 180° so that the connections of the TAP can be aligned according to the respective requirements. This DIN rail clip, available as an accessory, has the item number **PRP-DIN-CLIP**.



TS35/7.5 DIN rail



Network TAP  
with DIN rail clip

## CONNECTION RELIABILITY IN CASE OF POWER LOSS

All our Fiber Network TAPs are 100% passive and do not require a power supply.

A power failure in a circuit has no effect on the TAP as it is a physical process that disconnects the network signal. Thus, there is no impairment of the network and monitoring ports, but neighbouring devices could be affected by the power failure.



### ATTENUATION VALUES

SPLIT RATIO (OTHERS ON REQUEST)	50:50	60:40	70:30
Singlemode OS1, OS2	3.4 dB / 3.4 dB	2.5 dB / 4.5 dB	1.7 dB / 5.8 dB

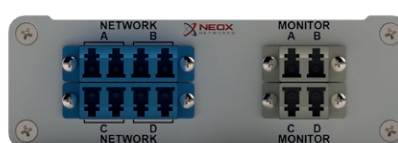
### TECHNICAL SPECIFICATIONS - NETWORK TAPS

Dimensions:	10.60 cm x 3.50 cm x 16.40 cm	Operating temperature:	0° to 55°C
Weight:	370 g	Storage temperature:	-40° to 70°C
Certifications*:	CE, FCC, RoHS, WEEE	Relative humidity in operation:	20% to 80%, non-condensing

## TAP MODELS



PRP-OS2-SLL-x



PRP-OS2-DLL-x



If you need a TAP with DIN rail mounting clip, please additionally order the mounting clip **PRP-DIN-CLIP**!  
If you need a TAP with rackmount frame front panel, please order the **PRP-1U3-CLIP** front panel additionally!  
(see „Mounting Options“!)

## STANDARD MODELS

All TAPs for fiber type OS2 are also OS1 compatible!

ITEM NO.	NETWORK	FIBER TYPE	WAVE-LENGTH	INTERFACE NETWORK	INTERFACE MONITORING	TAP VERSION
PRP-OS2-SLL-*	1/10/25/40/50/100/200/400G	OS2	1260 - 1650 nm	LC Singlemode	LC Singlemode	Single-TAP
PRP-OS2-DLL-*	1/10/25/40/50/100/200/400G	OS2	1260 - 1650 nm	LC Singlemode	LC Singlemode	Dual-TAP

## SECURE MODELS



All TAPs for fiber type OS2 are also OS1 compatible!

ITEM NO.	NETWORK	FIBER TYPE	WAVE-LENGTH	INTERFACE NETWORK	INTERFACE MONITORING	TAP VERSION
PRP-OS2-SLL-*-1310S	1/10/25/40/50/100/200/400G	OS2	1310 nm	LC Singlemode	LC Singlemode	Single-TAP
PRP-OS2-SLL-*-1550S	1/10/25/40/50/100/200/400G	OS2	1550 nm	LC Singlemode	LC Singlemode	Single-TAP
PRP-OS2-DLL-*-1310S	1/10/25/40/50/100/200/400G	OS2	1310 nm	LC Singlemode	LC Singlemode	Dual-TAP
PRP-OS2-DLL-*-1550S	1/10/25/40/50/100/200/400G	OS2	1550 nm	LC Singlemode	LC Singlemode	Dual-TAP

\* respective split ratio - e.g. „70“ for a split ratio of 70:30, „60“ for 60:40, and „50“ for 50:50

## ACCESSORIES

## INSTALLATION &amp; MOUNTING

ITEM NO.	DESCRIPTION
PRP-1U3-V2	Server rack mounting frame for 3 portable TAPs
PRP-1U3-BP-V2	Blank plate for mounting frame PRP-1U3-V2
PRP-1U3-CLIP	TAP rackmount frame bracket for server rack mounting frame PRP-1U3-V2
PRP-DIN-CLIP	TAP DIN rail mounting clip



PRP-1U3-V2

PRP-1U3-BP-V2



PRP-1U3-CLIP

## Y-CABLE FOR FIBER TAPS

ITEM NO.	FIBER TYPE	Ø	LENGTH	DESCRIPTION
NX-LC-Y-PC-OS2-1M	OS2	3.0mm	1 meter	Y-Cable / Special patchcord LC/PC-LC/PC Duplex
NX-LC-Y-PC-OS2-2M	OS2	3.0mm	2 meter	Y-Cable / Special patchcord LC/PC-LC/PC Duplex
NX-LC-Y-PC-OS2-3M	OS2	3.0mm	3 meter	Y-Cable / Special patchcord LC/PC-LC/PC Duplex
NX-LC-Y-PC-OS2-5M	OS2	3.0mm	5 meter	Y-Cable / Special patchcord LC/PC-LC/PC Duplex

