

## TAPstack Series - Cost-Effective Family of TAP to improve network visibility in less space

## TAPSTACK SERIES

The TAPstack Series is a family of Passive and Secure Fiber Optic TAPs, designed to enable rapid, effective access to live traffic traversing high-speed optical fibre networks links for network monitoring, analysis and cyber-security applications.

TAPstack provides network operators with the ability to rapidly and effectively deploy analysis tools to observe and monitor high-speed optical networks.



TAPstack is a slim rack-mounted device that supports up to 24 ports in a single rack unit. Models are available

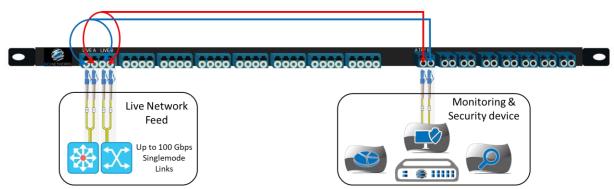
to support both duplex and parallel optical links, for multimode (MMF) and singlemode fiber (SMF), and rates right up to 400G.

#### FEATURES

- 100% passive and fault-tolerant; No impact on traffic; No power source required.
- Secure: no IP address required, no MAC address and cannot be hacked.
- Creates an exact copy of the bi-directional network traffic, including packets with errors.
- No configuration required; Integrates into your cabling infrastructure.
- 400G ZR/ZR+ Coherent support
- Easily connect to all of your Network Tools!
  - Lawful Interception
  - o Data Leakage Prevention
  - o An Intrusion Detection & Prevention Systems
  - o Analyzers, Sniffers, Probes, Compliance
- SLIM design for high-density connectivity
  - up to 24 TAPs with duplex fibre links with LC connectors per 1U
  - up to 24 TAPs with parallel fibre links with MTP connectors per 1U
- TAPstack DUO Comes with dual output LC duplex TAP
  - Up to 18 TAPs per 1U



## LC DUPLEX (2-FIBER) OPTICAL LINKS



The TAPstack connects to the live network using LIVE A & B ports, and mirrors traffic to the TAP ports, for inspection by a network analyzer, monitor or security device.

#### **OPTICAL SPECIFICATIONS**

Multimode TAP 1G/10G/25G SR					
Split Ratio	50/50	60/40	70/30	80/20	90/10
Max Network Loss	3.7dB	2.7dB	2.1dB	1.4dB	0.9dB
Max Monitor Loss	3.7dB	4.7dB	6.0dB	7.8dB	11.2dB
Singlemode Passive TAP 1G/10G/25G/40G/50G/100G /400G					
Split Ratio	50/50	60/40	70/30	80/20	90/10
Split Ratio Max Network Loss	50/50 3.4dB	60/40 2.4dB	70/30 1.9dB	80/20 1.25dB	90/10 0.65dB

#### **PHYSICAL SPECIFICATIONS**

Types	
Power Requirements	No Power Needed
Connector Types	LC (DUPLEX) for all Live and monitor ports
Wavelengths	Multimode (62.5/125 micron) for 850nm
wavelenguis	Singlemode (9/125 micron) 1310nm/1550nm
Split Ratios available	90/10, 80/20, 70/30, 60/40, 50/50
<b>Operating Temperature</b>	0°C to 60°C
Operating Humidity	10% to 90%, relative, non-condensing
Storage Temperature	-20°C to 70°C
Storage Humidity	10% to 90%, relative, non-condensing
Height	1/3 RU (three different TAPs can be mounted in 1U)

#### **ORDERING INFORMATION**

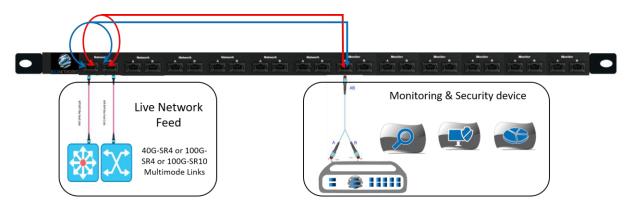
Part Number	Description
	25G Multimode SR, 850nm ble 90/10, 80/20, 60/40)
EN-TPSTCK1L25G-M55	TAPstack device with One Link Passive fibre TAP supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height



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EN-TPSTCK2L25G-M55	TAPstack device with Two Links Passive fibre TAP supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK4L25G-M55	TAPstack device with Four Links Passive fibre TAP supports Multimode 1G/10G/25G SR, the Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK8L25G-M55	TAPstack device with Eight (8) Links Passive Fiber TAPs supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK1L25G-M73	TAPstack device with One Link Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK2L25G-M73	TAPstack device with Two Links Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK4L25G-M73	TAPstack device with Four Links Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK8L25G-M73	TAPstack device with Eight (8) Links Passive fiber TAPs supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK1L25G-M73	TAPstack device with One Link Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
	25G/40G/50G/100G LR, 1310nm/1550nm ble 90/10, 80/20, 60/40)
(other spires ratios availa	
EN-TPSTCK1L400G-S73	TAPstack device with One Link Passive fibre TAP supports singlemode 1G/10G/25G/40G/50G/100G LR, the Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK2L400G-S73	TAPstack device with Two Links Passive Fiber TAPs supports singlemode 1G/10G/25G/40G/50G/100G LR, Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK4L400G-S73	TAPstack device with Four Links Passive fibre TAP supports singlemode 1G/10G/25G/40G/50G/100G LR, the Split ratio of 70/30, Slim 1/3U of 19" Rack height
EN-TPSTCK8L400G-S73	TAPstack device with Eight (8) Links Passive Fiber TAPs supports singlemode 1G/10G/25G/40G/50G/100G LR, the Split ratio of 70/30, Slim 1/3U of 19" Rack height

# MPO/MTP PARALLEL (8-FIBER/20-FIBER) TAP





The TAPstack MTP TAP is designed to simplify the cabling infrastructure for 40G/100/400G. Each TAP requires an MTP Y cable that splits the input feed from the TAP port to two ports on the network packet broker or on the monitoring tool.

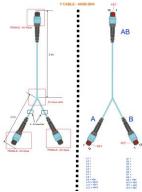
- Available for 40G-SR4, and 100G-SR4 links
  - o using an MPO-12 Y connector
  - multi-mode OM4 fibre.
- Available 100G SR10 links
  - MPO-24 Cabling is primarily used
  - multi-mode OM4 fibre
- Available 100G PSM4 and 400G DR4/xDR4/DR4+ links
  - MPO-12 Cabling is primarily used
  - Single-mode OS2 fibre

### **OPTICAL SPECIFICATIONS**

Multimode 40Gbps/100/400Gbps SR-4			
Split Ratio	50/50	60/40	70/30
Max Network Loss	3.7dB	2.7dB	2.1dB
Max Monitor Loss	3.7dB	4.7dB	6.0dB
Multimode 40Gbps/100/400Gbps SR-10			
Split Ratio	50/50	60/40	70/30
Max Network Loss	3.9dB	3.15dB	2.2dB
Max Monitor Loss	3.9dB	5.15dB	6.2dB

#### **PHYSICAL SPECIFICATIONS**

Types	
Power Requirements	No Power Needed
Connector Types	MTP for all Live and monitor ports
Wavelengths	Multimode (62.5/125 micron) for 850nm
wavelengths	Singlemode (9/125 micron) 1310nm/1550nm
Split Ratios available	90/10, 80/20, 70/30, 60/40, 50/50
Operating Temperature	0°C to 60°C
Operating Humidity	10% to 90%, relative, non-condensing
Storage Temperature	-20°C to 70°C
Storage Humidity	10% to 90%, relative, non-condensing
Height	1/3 RU (three different devices can be mounted in 1U)





**TAPstack series** Passive & Secure Fiber Optic TAPs

#### **ORDERING INFORMATION**

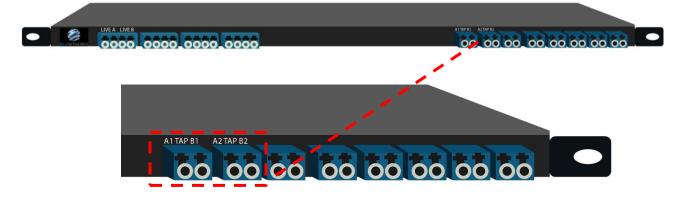
Part Number	Description
	/100G/400G Multimode SR4, 850nm
	ble 10/90, 20/80, 40/60)
EN-TPSTCK1L100G-M55	TAPstack device with One Link Passive fiber TAP supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height, Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK2L100G-M55	TAPstack device with TWO Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK4L100G-M55	TAPstack device with FOUR Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK8L100G-M55	TAPstack device with SIX (8) Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN- YMTP8F-0M4-3M)
EN-TPSTCK1L100G-M73	TAPstack device with One Link Passive fiber TAP supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK2L100G-M73	TAPstack device with TWO Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK4L100G-M73	TAPstack device with FOUR Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)
EN-TPSTCK8L100G-M73	TAPstack device with SIX (8) Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN- YMTP8F-0M4-3M)
EN-YMTP8F-OM4-3M	1x MTP 8 fibers Female to 2x MTP 4 fibers Female, OM4, Polarity B, Breakout length,0.5m. 3m.
EN-TPSTCK2L400G-PS73	TAPstack device with TWO (2) Links Passive fiber TAPs supports parallel SMF Singlemode MTP to MTP 100G/400G, APC, Split ratio of 30/70, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-SM-3M) compatible with 400G DR4, XDR4/DR+, 40G/100G PSM4, PLR4,)
EN-TPSTCK4L400G-PS73	TAPstack device with FOUR (4) Links Passive fiber TAPs supports parallel SMF Singlemode MTP to MTP 100G/400G, APC, Split ratio of 30/70, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-SM-3M) compatible with 400G DR4, XDR4/DR+, 40G/100G PSM4, PLR4,
EN-TPSTCK8L400G-PS73	TAPstack device with EIGHT (8) Links Passive fiber TAPs supports parallel SMF Singlemode MTP to MTP 100G/400G, APC, Split ratio of 30/70, Slim 1/3U of 19" Rack height Net2XMTP/Mon1XMTP per link, requires MTP Y Cable



	(PN# EN-YMTP8F-SM-3M) compatible with 400G DR4, XDR4/DR+, 40G/100G PSM4, PLR4,
TAPstack TAPs 100G Mu	timode SR10, 850nm
(other splits ratios availa	ble 10/90, 20/80, 40/60)
EN-TPSTCK1LSR10-M55	TAPstack device with One Link Passive Fiber TAP supports Multimode MTP to MTP 100G SR10, Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK2LSR10-M55	TAPstack device with TWO Links Passive Fiber TAPs supports Multimode MTP to MTP 100G SR10, Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK4LSR10-M55	TAPstack device with FOUR Links Passive Fiber TAPs supports Multimode MTP to MTP 100G SR10, Split ratio of 50/50, Slim 1/3U of 19" Rack height
EN-TPSTCK6LSR10-M55	TAPstack device with SIX (6) Links Passive Fiber TAPs supports Multimode MTP to MTP 100G SR10, Split ratio of 50/50, Slim 1/3U of 19" Rack height

## TAPSTACK DUO DUAL OUTPUT LC TAP

- Comes with dual output LC duplex TAP
- splits the optical signal twice in order to provide two monitor output signals from a single link. These two output signals can be connected to two separate monitoring systems, to be filtered and analyzed in different ways.
- available in Multi-Mode (850nm OM4) up to 25Gbps
  - o with a 50/25/25 or 40/30/30 split ratio
- available in Single-Mode (1310/1550nm 9/125µm) up to 100Gbps
  - o with a 50/25/25 40/30/30 split ratio



#### **ORDERING INFORMATION**

Part Number	Description
TAPstack DUO: Dual Output	LC TAP for LC Duplex links
EN-TPSTCKD1L25G-M522	TAPstack DUO device with One Network Link and 2XTAP outputs per device: Multi Mode OM4 LC-LC 1x3 850 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, 1G/10G/25G Net4XLC/Mon4XLC per link
EN-TPSTCKD2L25G-M522	TAPstack DUO device with TWO Network Link and 4XTAP outputs per device: Multi Mode OM4 LC-LC 1x3 850 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, 1G/10G/25G Net4XLC/Mon4XLC per link
EN-TPSTCKD4L25G-M522	TAPstack DUO device with FOUR Network Link and 8XTAP outputs per device: Multi Mode OM4 LC-LC 1x3 850 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, 1G/10G/25G Net4XLC/Mon4XLC per link
EN-TPSTCKD6L25G-M522	TAPstack DUO device with SIX Network Link and 12XTAP outputs per device: Multi Mode OM4 LC-LC 1x3 850 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, 1G/10G/25G Net4XLC/Mon4XLC per link
EN-TPSTCKD1L100G-S522	TAPstack DUO device with One Network Link and 2XTAP outputs per device: Single mode LC-LC 1x3 1310/1550 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, Net4XLC/Mon4XLC per link,



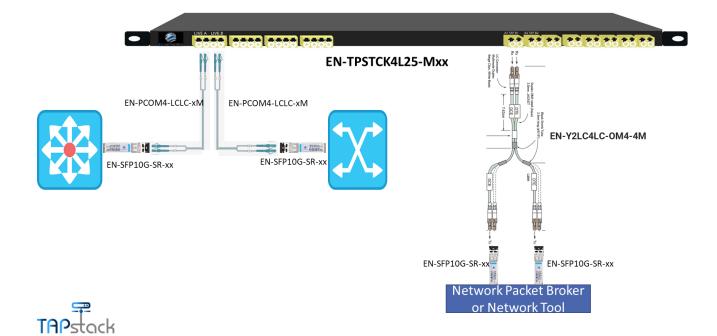


	1G/10G/25G/40G/50G/100G
EN-TPSTCKD2L100G-S522	TAPstack DUO device with TWO Network Link and 4XTAP outputs per device: Single mode LC-LC 1x3 1310/1550 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, Net4XLC/Mon4XLC per link,
	1G/10G/25G/40G/50G/100G
EN-TPSTCKD4L100G-S522	TAPstack DUO device with FOUR Network Link and 8XTAP outputs per device: Single mode LC-LC 1x3 1310/1550 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, Net4XLC/Mon4XLC per link, 1G/10G/25G/40G/50G/100G
EN-TPSTCKD6L100G-S522	TAPstack DUO device with SIX Network Link and 12XTAP outputs per device: Single mode LC-LC 1x3 1310/1550 fiber coupler, Split Ratio: 50/25/25, Slim 1/3U of 19" Rack height, Net4XLC/Mon4XLC per link, 1G/10G/25G/40G/50G/100G

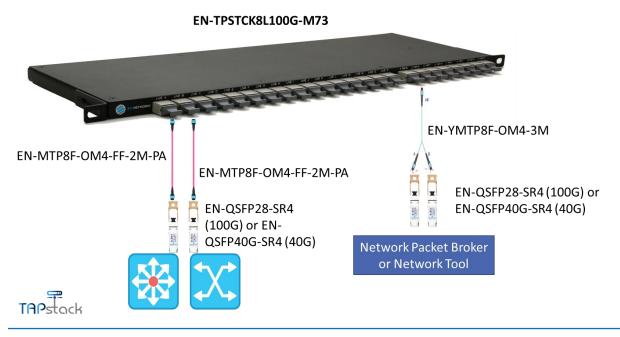


## **CONNECTIVITY USES CASES:**

#### **TAPstack Series- Multimode Duplex LC TAP Connectivity example**

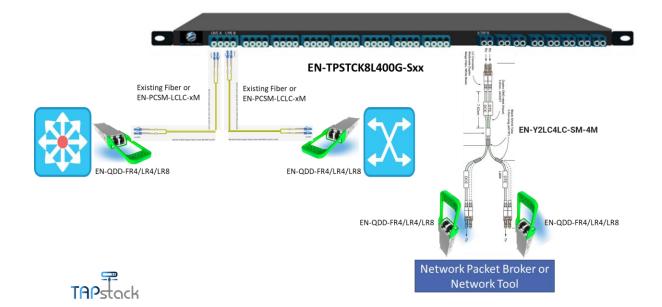


#### **TAPstack Series – MPO/MTP Parallel TAP Connectivity example**

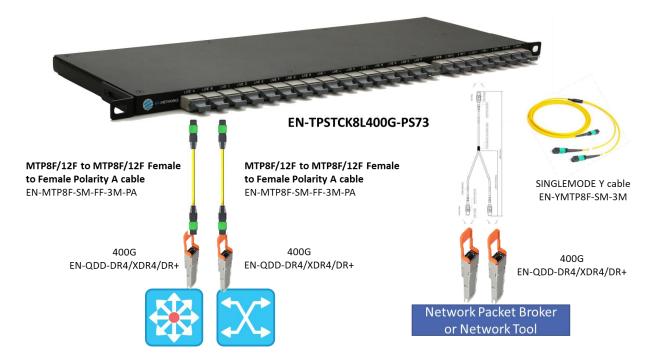




#### TAPstack Series 100M-400G Singlemode Duplex LC TAP Connectivity example

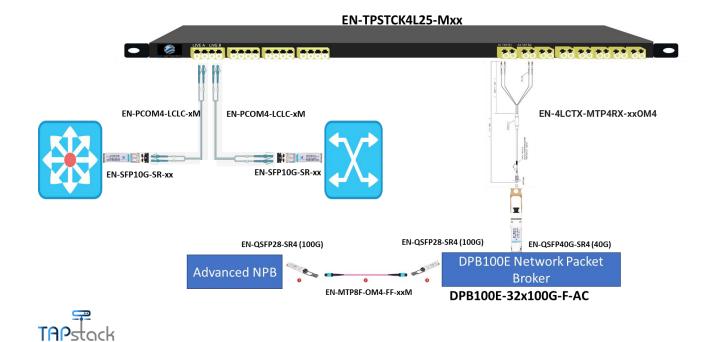


#### 40G/100G/400G TAP Parallel SMF MTP Connectivity example.





# TAPstack Series 10G Multimode Links Monitoring with 100G Disaggregated Packet Broker





#### Notice:

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For further information



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