

Keysight Patch Tap

The newest addition to our fiber taps is the Patch Tap— for use in your patch panels and fiber distribution frames. The Patch Tap has superior Insertion Loss specifications, bend insensitive fibers, innovative splitter technology, and a totally new deployment strategy. For financial markets it offers lower latency through both low light path length and the ability to integrate into patch panels.

The Patch Tap can be integrated into major manufacturers' patch panels, enabling passive tapping of your network while reducing rack space requirements and light loss budget.

The Patch Tap is available in Multimode and Single mode fiber, in the most common split ratios of 50/50 and 70/30, in speeds from 100G to 1G. The latency of the standard patch taps is around 1.3 nSec whilst the Ultra-Low Latency Patch tap is less than 0.8 nSec.

The design of the Patch Tap is optimized and tested for high-performance fiber networks. Flex Taps are deployed at any inline connection on the network; therefore, no additional overhead or management burden is added to the network devices to copy traffic for the monitoring/security infrastructure.

The Patch Tap is compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection systems. The Patch Tap is network protocol agnostic.

Each Multimode Patch Tap is capable of 1G, 10G and 25G speeds.

Each Single Mode Patch Tap is multi-speed from 1G to 400G speeds.

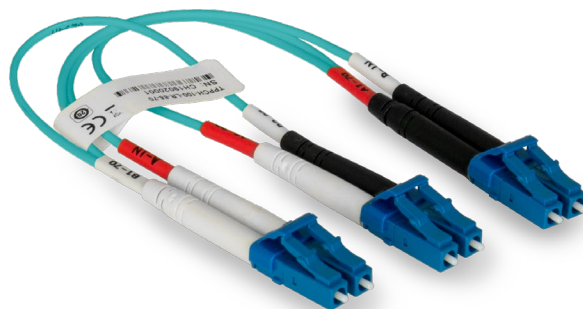


Figure 1. Keysight Patch Tap

Highlights

- For use in your patch panels and fiber distribution frames
- No exterior housing
- Ultra-low latency patch taps with shortest length of 0.14m to achieve lowest possible latency
- Single Mode fiber speeds of 400G/100G/50G/40G/25G/10G/1G
- Multimode fiber speeds of 25G/10G/1G
- 50/50 and 70/30 split ratios
- Network protocol agnostic
- Large inventory for reduced lead times
- Install directly into patch panels
- Lower rack space utilization
- Fewer fiber runs than modular taps
- Improved light loss budget

Key Features

- Integrated into the structured cabling systems.
- No additional segments in the channel link – fits easily into most major manufacturer's patch panels.
- Lower latency than traditional modular taps.
- Integrated tail cable – Ultra Low Latency taps include a 3m long fiber tail to reduce connector losses.
- Fully Passive – Monitoring infrastructure does not impact network availability and reduces operating cost without adding management overhead.
- MACs (Moves, Adds, Changes) won't disrupt live traffic.
- Patch panel vendor agnostic – now you have a choice for integrated taps. No more sole source procurement.

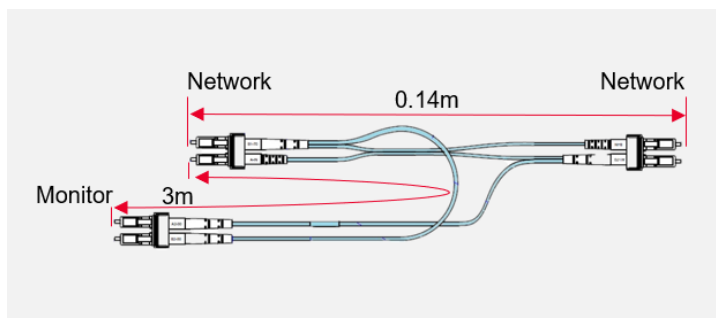


Figure 2. Ultra-low Latency Patch Tap

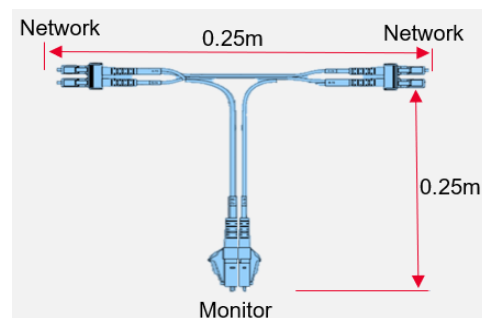


Figure 3. Standard Patch Tap

Operating Specifications

Multimode

Key specifications	
Operating	<ul style="list-style-type: none">• Operating Temperature: 0° to 70°C• Storage Temperature: -40° to 85°C• Relative Humidity: 10% min, 95% max, non-condensing
Rack Mechanical	<ul style="list-style-type: none">• Patch panels and fiber distribution frames
Fiber Specs	<ul style="list-style-type: none">• 50/125 µm; 850nm, Aqua jacket• OM4 bend insensitive fiber• Supports speeds of 10G and 1G• Ultra-low latency patch taps are not recommended to use at bended to 180-degree environment
Connectors	<ul style="list-style-type: none">• Network Ports: 2 x Duplex LC/UPC-male• Monitoring Ports: 1 x Duplex LC/UPC-male
Insertion Loss (Network / Monitor Ports)	<ul style="list-style-type: none">• 50/50 split ratio: 3.9 dB / 3.9 dB• 70/30 split ratio: 2.2 dB / 6.1 dB
Wavelength range	<ul style="list-style-type: none">• 850 nm +/- 20nm)

Single mode

Key specifications	
Operating	<ul style="list-style-type: none">• Operating Temperature: 0° to 70°C• Storage Temperature: -40° to 85°C• Relative Humidity: 10% min, 95% max, non-condensing
Rack Mechanical	<ul style="list-style-type: none">• Patch panels and fiber distribution frames
Fiber Specs	<ul style="list-style-type: none">• 8.5/125µm; 1310 nm, yellow jacket• G.657.B3 bend insensitive fiber• Supports speeds of 100G, 50G, 40G, 25G, 10G, and 1G• Ultra-low latency patch taps are not recommended to use at bended to 180-degree environment
Connectors	<ul style="list-style-type: none">• Network Ports: 2 x Duplex LC/UPC-male• Monitoring Ports: 1 x Duplex LC/UPC-male
Insertion Loss (Network / Monitor Ports)	<ul style="list-style-type: none">• 50/50 split ratio: 3.8 dB / 3.8 dB @ 1310• 70/30 split ratio: 2.3 dB / 6.1 dB @ 1310
Wavelength range	<ul style="list-style-type: none">• 1310nm +/-20nm

Length and Latency

Part no.	Tap type	Network to Network length	Network to Monitor length	Network to Network Latency	Network to Monitor Latency
<ul style="list-style-type: none"> • TPPCH-SM-S14-LC-50 • TPPCH-SM-S14-LC-70 	ULL ¹	0.14m	3m	<0.8ns	<16.5ns
<ul style="list-style-type: none"> • TPPCH-MM-S14-LC-50 • TPPCH-MM-S14-LC-70 	ULL	0.14m	3m	<0.8ns	<16.5ns
<ul style="list-style-type: none"> • TPPCH-10-SR-50-50 • TPPCH-10-SR-50-70 	Standard patch tap	0.25m	0.25m	<1.3ns	<1.3ns
<ul style="list-style-type: none"> • TPPCH-100-LR-85-50 • TPPCH-100-LR-85-70 	Standard patch tap	0.25m	0.25m	<1.3ns	<1.3ns

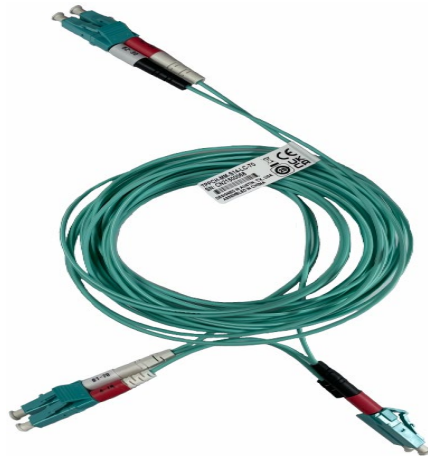


Figure 4. Ultra-low latency patch tap

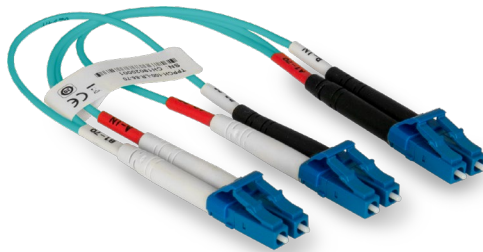


Figure 5. Keysight patch tap

Ordering Information

Keysight Patch Taps

Part number	Description
TPPCH-10-SR-50-50	Keysight Patch Tap, Multimode Fiber, 25G/10G/1G, SR, OM4 bend insensitive, 50µm, LC/UPC-male connectors, 50/50 split ratio (955-0771) (TPPCH-10-SR-50-50). For use in patch panels and fiber distribution frames.
TPPCH-10-SR-50-70	Keysight Patch Tap, Multimode Fiber, 25G/10G/1G, SR, OM4 bend insensitive, 50µm, LC/UPC-male connectors, 70/30 split ratio (955-0772) (TPPCH-10-SR-50-70). For use in patch panels and fiber distribution frames.
TPPCH-100-LR-85-50	Keysight Patch Tap, Single Mode Fiber, 100G/50G/40G/25G/10G/1G, LR, G.657.B3 bend insensitive, 8.5µm, LC/UPC-male connectors, 50/50 split ratio (955-0773) (TPPCH-100-LR-85-50). For use in patch panels and fiber distribution frames.
TPPCH-100-LR-85-70	Keysight Patch Tap, Single Mode Fiber, 100G/50G/40G/25G/10G/1G, LR, G.657.B3 bend insensitive, 8.5µm, LC/UPC-male connectors, 70/30 split ratio (955-0774) (TPPCH-100-LR-85-70). For use in patch panels and fiber distribution frames.
TPPCH-MM-S14-LC-50	Keysight Ultra-Low Latency Patch Tap, Net to Net 0.14m, Multimode Fiber, 10G/1G, SR, OM4 bend insensitive, 50um, LC/UPC-male connectors, 50/50 split ratio. (955-0779)
TPPCH-MM-S14-LC-70	Keysight Ultra-Low Latency Patch Tap, Net to Net 0.14m, Multimode Fiber, 10G/1G, SR, OM4 bend insensitive, 50um, LC/UPC-male connectors, 70/30 split ratio (955-0780)
TPPCH-SM-S14-LC-50	Keysight Ultra-Low Latency Patch Tap, Net to Net 0.14m, Singlemode Fiber, 1G-400G, bend insensitive, 8.5um, LC/UPC-male connectors, 50/50 split ratio (955-0781)
TPPCH-SM-S14-LC-70	Keysight Ultra-Low Latency Patch Tap, Net to Net 0.14m, Singlemode Fiber, 1G-400G, bend insensitive, 8.5um, LC/UPC-male connectors, 70/30 split ratio (955-0782)

For more information on Keysight Technologies' products, applications, or services, please visit: www.keysight.com



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