

Flex Tough Taps

Keysight Industrial Solutions

PROBLEM: Cybersecurity and Compliance

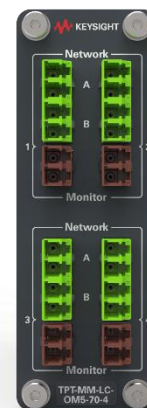
Industry 4.0, also known as Industrial Internet of Things (IIoT) is transforming and requiring the modernization of networks. With this modernization of legacy infrastructure – utility grid, military, manufacturing, and other industrial applications – operational technology (OT) networks and traditional Information Technology (IT) infrastructures converge. They are no longer physically separated.

This convergence has created a new weak link in the networks that has become a prime target for bad actors seeking to access privileged data or centralized resources. The inability to see what's lurking inside your network, makes securing your network all that more challenging.

Organizations are looking to protect their networks and regulatory bodies are looking to protect the interest of their countries and industries. As such, much regulatory compliance is requiring monitoring of these networks with much more scrutiny. Before any such monitoring or security forensics can take place – other considerations come in to play. OT data access is often at remote sites with the distributed operations of utilities, manufacturing, and governments. These environments have extreme temperatures, humidity and at times vibration and other considerations. Making it difficult to use standard commercial solutions.

Highlights

- Requires no power and does not have an IP address, providing safety from remote attacks
- Passes all traffic (including errors) from all layers
- Operates in harsh environments
- Four taps in each module
- Completely passive, optical device
- OM1 multimode model in 70/30 split ratio
- OM5 multimode model in 70/30 split ratio
- DIN Rail Mountable
- Same form factor as Keysight Copper Tough Tap
- Color coded LC connectors for ease of use
- TAA Compliant



SOLUTION: Security and Compliance

Keysight's Industrial Solutions offer a remedy to those looking to security remote sites with extreme environmental conditions. Built to interoperate with our commercial visibility products, the solution includes a complete portfolio of Flex Tough Taps, Copper Tough Tap & Power Solutions, and an Industrial Packet Aggregator.

Keysight Flex Tough Taps are built from the ground up to meet requirements for collecting and archiving network traffic—even within the harsh environments that might exist at plants and remote sites/substations. Installed at multiple levels of the SCADA network, Keysight Industrial taps and packet aggregators provide OT and IT personnel the visibility they need to monitor critical infrastructure systems.

Flex Tough Taps - Built for the II/OT

Keysight's Flex Tough Tap provides reliable, continuous visibility of 100% of network traffic to support performance and security, with no network performance degradation or disruption.

The design of the Flex Tough Tap is optimized for “Run to Fail” fiber networks with both old and new technology often seen in remote substations. Available in two models: 1G OM1 multimode fiber for older networks, and the newest OM5 multimode fiber for newer fiber networks. Each tap module contains four taps in 70/30 split ratios.

Flex Tough 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. Flex Tough Taps are compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection systems, and are protocol agnostic.



And lastly, Flex Tough Taps are TAA Compliant and compact, with each module holding 4 taps in one din mountable housing.

Key Specifications

Specification	Details
Mechanical	Four taps in one unit Industrial aluminum custom extrusion housing Integral DIN mount Unit dimensions: 5.25" H x 6" W x 1.875" L Unit weight: 2 lbs
Operating temperature	-40 °C to +85 °C MTBF: <i>Available Upon request</i>
Environment	Storage temperature: -40 °C +100 °C Humidity: 5% to 95% (non-condensing) Altitude: No limitations
Ports	Network: LC connectors Monitor: LC connectors Color coded for ease of installation
OM1 fiber	OM1 (62.5 µm): Split ratio: 70/30 Insertion loss: 2.4 dB/6.3 dB
OM5 fiber	OM5 (50 µm): Split ratio: 70/30 Insertion loss: 2.4 dB/6.3 dB
Regulatory compliance	CE, RoHS 10

Ordering Information

Catalog part number	Product description
TPT-MM-LC-OM1-70-4-T	Ixia, TAA compliant, Flex Tough Tap - Industrial, multi-mode OM1 62.5 μm , LC Connector, 70/30 Split, 4-in-1 module. (955-0175)
TPT-MM-LC-OM5-70-4-T	Ixia, TAA compliant, Flex Tough Tap - Industrial, multi-mode OM5 50 μm , LC Connector, 70/30 Split, 4-in-1 module. (955-0176)
RK-TPAT-8TAP-T	Ixia, TAA compliant, Tough Tap Rackmount - Industrial, 19" 4RU Rackmount with DIN Rail. Compatible Tough Taps: TPAT-CU3-T, TPT-MM-LC-OM5-70-4-T, TPT-MM-LC-OM1-70-4-T; holds up to 8 taps, sold separately. (955-0168)