

# G-TAP M Series Unidirectional TAP Family

(Addendum to G-TAP M Series datasheet)



Multimode ULT G-TAP Chassis



Multimode LC ULT TAP Module



Multimode MPO ULT TAP Module



Singlemode LC ULT TAP Module

## Product Description

As a part of the G-TAP M Series, the Unidirectional TAP Family (designated as ULT) is a family of unidirectional flow, lower-density, passive fiber optical TAPs. The G-TAP M-ULT family enables network operators to passively monitor full duplex fiber optic links, without impacting network traffic — and without the possibility of any incidental light signal making its way back into the network, which would result in the network being adversely affected. Up to eight full duplex links can be securely tapped in a 1RU space.

As with the rest of the G-TAP M Series, the ULT Family uses advanced thin-film technology to minimize insertion loss and maximize consistency across optical transceiver vendors. No special cabling or patch cords are required, even for 40Gb and 100Gb deployments.

The ULT Family is a modular design with two different form-factors:

- + For multimode (MM) fiber ULT TAPs, a 1RU rack-mountable chassis holds up to two TAP modules. Each TAP module supports one or four network links, depending on the model.
- + For singlemode (SM) fiber ULT TAPs, ½RU and 1RU rack-mountable chassis holds up to three and six TAP modules, respectively. Each TAP module supports two network links.

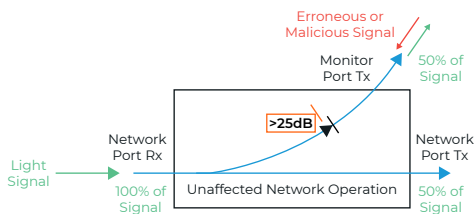


Figure 1: Unidirectional passive optical fiber TAP

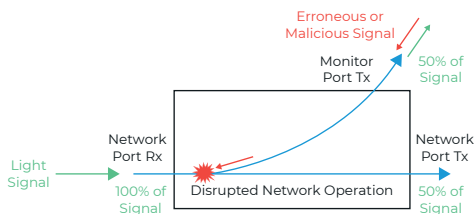


Figure 2: Typical passive optical fiber TAP

The MM and SM TAP modules are available in both 50/50 and 70/30 split ratios. The modularity not only provides flexibility in choosing link speed, fiber type and split ratios, but also provides space for future growth of visibility for network security and performance monitoring.

This family of optical fiber network TAPs is specifically designed to provide additional no-return-path isolation to prevent signals that might be maliciously or accidentally transmitted into the monitor ports of the TAP from entering or disrupting the network.





All TAPs within the ULT family use OM5 grade multimode or OS2 grade singlemode fiber and are TAA certified.

**TABLE 1: FEATURES AND BENEFITS**



Features/Applications	Benefits
Full Fidelity Traffic	Because optical TAPs split the light, 100 percent of the traffic is replicated for monitoring purposes. Unlike SPAN ports, which may throttle output based on load, TAPs forward everything at full line rate, including errored, malformed and non-standard packets.
No Network Impact	As fully passive devices, optical TAPs do not disrupt network traffic once installed, making for a highly reliable monitoring solution.
Visibility Fabric Integration	TAPs provide the foundation of a traffic visibility platform. G-TAPs are fully compatible with GigaVUE® HC Series and GigaVUE TA Series of visibility nodes, providing full access to sophisticated traffic forwarding with Flow Mapping® and traffic intelligence with GigaSMART®.

## TAP Module Types

**TABLE 2A: UNIDIRECTIONAL MULTIMODE TAP SUMMARY**

Part Number	Link Speed	Fiber Type	Wavelength	Connector <sup>1</sup>	Links	Split Ratio	Network Loss <sup>2</sup>	Monitor Loss <sup>2</sup>	Isolation
TAP-M251ULT 	1/10/25G SX/SR	Multimode	850nm	LC	4	50/50	3.9dB	5.1dB	>25dB
TAP-M271ULT 	1/10/25G SX/SR	Multimode	850nm	LC	4	70/30	2.2dB	7.2dB	>25dB
TAP-M451ULT 	40/100G SR4	Multimode	850nm	MPO	1	50/50	3.9dB	5.1dB	>25dB
TAP-M471ULT 	40/100G SR4	Multimode	850nm	MPO	1	70/30	2.2dB	7.2dB	>25dB

**TABLE 2B: UNIDIRECTIONAL SINGLEMODE TAP SUMMARY**

Part Number	Link Speed	Fiber Type	Wavelength	Connector <sup>1</sup>	Links	Split Ratio	Network Loss <sup>2</sup>	Monitor Loss <sup>2</sup>	Isolation
TAP-M253ULT 	1/10/25/40/100G LX/LR, EX/ER, ZX/ZR	Singlemode	1310/1550nm	LC	2	50/50	3.7dB	4.3dB	>25dB
TAP-M273ULT 	1/10/25/40/100G LX/LR, EX/ER, ZX/ZR	Singlemode	1310/1550nm	LC	2	70/30	2.0dB	6.6dB	>25dB

<sup>1</sup>UPC unless otherwise specified

<sup>2</sup>Includes connector loss

## Specifications

**TABLE 3: PHYSICAL DIMENSIONS AND WEIGHT**

Part	Height	Width	Depth	Weight
½ RU TAP M100T Chassis	0.81in (2.19cm)	17.3in (44.0cm)	6.10in (15.5cm)	Empty: 3.3lbs (1.5kg) Full: 8.58lbs (3.9kg)
1 RU TAP M200 Chassis	1.72in (4.38cm)	17.3in (44.0cm)	6.10in (15.5cm)	Empty: 3.8lbs (1.7kg) Full: 14.3lbs (6.5kg)
1RU TAP-M202ULT Chassis	1.72in (4.38cm)	17.3in (44.0cm)	6.10in (15.5cm)	Empty: 3.8lbs (1.7kg)
Multimode LC Unidirectional TAP Modules	1.61in (4.1cm)	8.35in (21.2cm)	20.1in (51cm)	9.02lbs (4.1kg) typical
Multimode MPO Unidirectional TAP Modules	1.61in (4.1cm)	8.35in (21.2cm)	20.1in (51cm)	9.02lbs (4.1kg) typical
Singlemode LC Unidirectional TAP Modules	0.84in (2.14cm)	5.39in (13.7cm)	8.94in (22.7cm)	1.63lbs (0.74kg) typical

**TABLE 4: ENVIRONMENTAL CHARACTERISTICS**

Type	Specification
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Operating Temperature	32°F to 140°F (0°C to 60°C)
Storage Humidity	10% to 90%, relative, non-condensing
Operating Humidity	10% to 90%, relative, non-condensing
Altitude	Up to 15,000ft (4.6km)

**TABLE 5: REGULATORY COMPLIANCE**

Regulatory Compliance
ROHS 2 and CE (EU directive 2011/65/EU), and ROHS (EU 2015/863)
USA Federal Trade Agreements Act (TAA clause 52.225-5)

## Ordering Information

**TABLE 6A: FIBER TAP CHASSIS**

Part Number	Description
TAP-M100T	G-TAP M Series ½ RU chassis. Supports up to 3 M Series Tap modules. TAA compliant.
TAP-M200	G-TAP M Series 1 RU chassis. Supports up to 6 M Series Tap modules. (Not TAA compliant)
TAP-M202ULT	G-TAP M Series 1 RU chassis. Supports up to 2 Multimode Unidirectional TAP modules (TAP-Mxx1ULT). TAA Compliant.
TAP-M251ULT	G-TAP M Series 1/10/25Gb Unidirectional TAP module, 50/50 Multimode, 850nm 50/125um OM5 fiber LC, taps 4 1/10/25Gb links, requires TAP-M202ULT chassis. TAA Compliant.
TAP-M253ULT	G-TAP M Series 1/10/25/40/100Gb Unidirectional TAP module, 50/50 Singlemode, 1310nm 9/125um SM fiber LC, taps 2 1/10/25/40/100Gb links, requires TAP-M100T or TAP-M200 chassis. TAA Compliant.
TAP-M271ULT	G-TAP M Series 1/10/25Gb Unidirectional TAP module, 70/30 Multimode, 850nm 50/125um OM5 fiber LC, taps 4 1/10/25Gb links, requires TAP-M202ULT chassis. TAA Compliant.
TAP-M273ULT	G-TAP M Series 1/10/25/40/100Gb Unidirectional TAP module, 70/30 Singlemode, 1310nm 9/125um SM fiber LC, taps 2 1/10/25/40/100Gb links, requires TAP-M100T or TAP-M200 chassis. TAA Compliant.
TAP-M451ULT	G-TAP M Series 40/100Gb MPO Unidirectional TAP module, 50/50 Multimode, 850 nm, 50/125um OM5 fiber MPO, taps 1 40/100Gb link, requires TAP-M202ULT chassis. TAA Compliant.
TAP-M471ULT	G-TAP M Series 40/100Gb MPO Unidirectional TAP module, 70/30 Multimode, 850 nm, 50/125um OM5 fiber MPO, taps 1 40/100Gb link, requires TAP-M202ULT chassis. TAA Compliant.

Note: For other TAP modules and Breakout Panels, please refer to the G-TAP M Series data sheet.

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