maxcom M-TAP

Portable Optical Test Tool – Fiber Optic Tap

Optical Signal Source

Headend/Hub

M-Tap

In

Out

Monitor port

Node/Optical Receiver/or
Other Device under test

Fiber to RF Receiver

RF Out

Battery

Or connect to:

Optical Meter or
Analyzer

maxcom

2”

4.4”

0.8”

Two Splitters/Taps
One Portable Device
80/20 split ratio
50/50 split ratio

Introduction

The Maxcom Fiber Tap (M-TAP) is a portable optical test tool designed to minimize customer downtime.

Created because Maxcom listens. Technicians have told us they need a way to minimize customer downtime.

Maxcom understands that there are simply times when the system must be interrupted to perform troubleshooting or testing. It doesn't matter if it's in the middle of the night or the maintenance window, every effort must be made in today's world to lower the impact or downtime to costumers. The Maxcom M-TAP solves this issue and provides the technician with the tools needed to minimize the impact while allowing the technician to perform his job in maintaining the reliability and performance of the network. The M-TAP allows the technician to access and passively test/monitor fiber traffic between devices using network analysis tools. The M-TAP takes only a few seconds to connect.

The Maxcom Fiber Taps provide an easy method to rapidly and effectively use analysis tools to observe and monitor traffic non-intrusively between two devices on a fiber network. By design, fiber taps are totally passive, fault-tolerant, and invisible to the network which means they will not affect network performance or integrity and can be trusted for permanent installations on a fiber network. These dependable and solid devices are ideal for real-time monitoring and analysis of any traffic between critical network devices such Headend/Hub equipment, Fiber Nodes, switches, and other optical transport devices.

Considerations for Fiber and Equipment testing:
Maxcom Fiber TAPs are splitters that divide the light traveling along the fiber into two separate channels. The splitting of the fiber takes signal strength from one fiber and divides it into two fibers requiring enough light from the main channel to be shared among the divided fibers. Maxcom fiber taps come standard with two built in splitters. Side A allows 80% of the original fiber signal to connect to the device under test, such as a fiber receiver, this allows the majority of light to reach the receiver with minimal impact or loss (typically just over 1 dB of loss), while tapping 20% of the light to be directed to a test device. 20% is typically more than sufficient for the purpose of testing a signal with a fiber Analysis device, or a test receiver (Maxcom offers optional small battery-operated test receivers that have high sensitivity to help the technician measure MER, and other RF signal characteristics). The 20% port typically has a loss of -8 dB. Maxcom recommends you take into consideration your "light budget" to allow for the loss of light on each split channel. Note: Custom options are available, contact Maxcom for custom requests
*Custom split ratios are available in 60/40, 70/30 or 90/10, or other… please inquire. Maxcom also customizes these devices for dual fiber bidirectional data applications.

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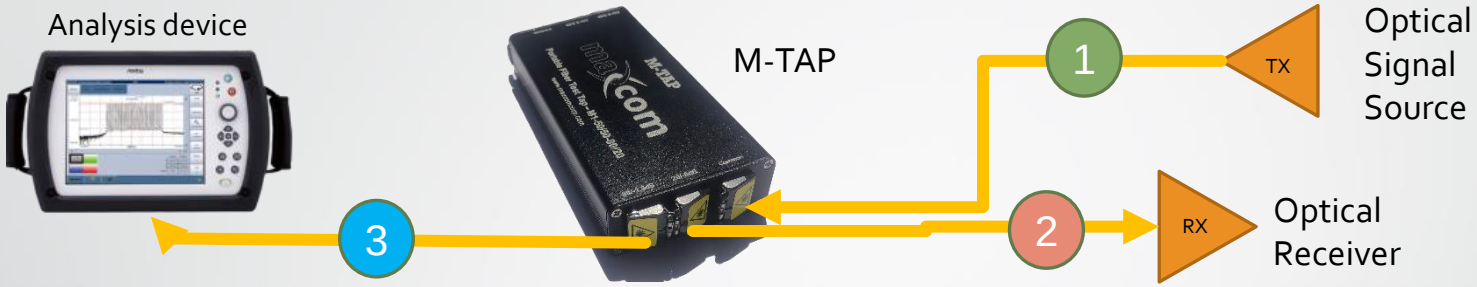
Example using the 80/20 side of the M-TAP

When testing at the Receiver location:



1. Connect the fiber cable of signal source to the common port.
2. Connect a fiber cable from the -1.3 dB (80% side) port, to the receiver.
3. Connect a fiber cable from the -8 dB (20% side) port to the Analysis device (or Test Receiver).

When testing at the Transmitter location:

1. Connect a fiber cable of signal source (output of Transmitter) to the common port.
2. Connect the fiber cable from the -1.3 dB (80% side) port, to the outgoing fiber (the fiber that was previously connected to the output of the Transmitter).
3. Connect a fiber cable from the -8 dB (20% side) port to the Analysis device (or Test Receiver).

*The M-TAP uses SC/APC connectors

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The M-TAP is available with an optional kit

Packages:

MX-MTAP KIT 1	Kit, includes M-TAP, MX-02RF, MX555FH, MX-BP12VAA8
MX-MTAP KIT 2*	Kit, includes M-TAP, MX-02RF-WD, MX555WD, MX-BP12VAA8 *Used with RF overlays on GPON

M-TAP

MX555 Optical Receiver
(Fiber in, RF out)

MX-O2RF
Passive Optical Receiver
(*Quick Reference Tool)

12v battery pack holds 8 AA batteries (used to power the Maxcom MX555 receiver)

Specifications & Standards

Physical
- Impact resistant chassis
- Two devices in one
- Device 1) 80/20 fiber splitter/tap
- Device 2) 50/50 fiber splitter/tap

Fiber
- SC/APC Fiber connectors
- Single Mode Fiber - Fiber Type: Corning 9/125 micron
- Directivity: ≥50dB
- 80/20 Split Ratio (Side A)
- -1.3 dB Insertion Loss (80% port)
- -8 dB Insertion Loss (20% port)
- 50/50 Split Ratio (Side B)
- -3.5 dB Insertion Loss
- Supports Wavelengths between 1290nm ~ 1630nm

Environmental
- Temperature:
  - Operating Temperature: 0° to 40° C (32 ° to 104 ° F)
  - Non-Operating Temperature: -30° to 65° C (-22 ° to 149 ° F)
- Humidity: Less than 95% non-condensing operating or non-operating

Product Dimensions/Weight
- 4.4" x 2" x 0.8" (inch)
- 1 oz (.29 gr)

Package Contents
- Portable Fiber Tap (M-TAP)

Product Numbers
- M-TAP - Test tap, fiber, 80/20 split, 50/50 split

*Note: Custom options are available, contact Maxcom for custom requests

*Custom split ratios are available in 60/40, 70/30 or 90/10… please inquire.

- MX-MTAP KIT 1 - Kit, includes MX-TAP, MX-02RF, MX555FH, MX-BP12VAA8
- MX-MTAP KIT 2 - Kit, includes MX-TAP, MX-02RF-WD, MX555WD, MX-BP12VAA8 (Used with RF overlays on GPON)
- MX-BP12VAA8 - Battery Pack, holds (8) 1.5-volt AA Batteries (not included)

Warranty
- 2-year limited manufacturer warranty from date of purchase

Monitoring & Analysis
- Minimize customer downtime (takes only a few seconds to connect)
- Non-intrusive way to connect a network tool or test receiver
- Captures and delivers a copy of the signal to any analysis tool / receiver
- Best method to measure network link's performance
- Great for network analysis and troubleshooting, provides the technician with as much time as necessary to thoroughly test or monitor a signal
- Minimize traffic interruptions.
- Network Monitoring, Analysis and Performance testing
- Secure & Reliable
- Passive access means no interference of signal/network traffic
- Network traffic will continue to pass uninterrupted

Excellent Compatibility
- Singlemode model support both RF over Fiber and/or Data
- Supports multiple topologies: RF, 1G, 10G, 40G, 100G Ethernet, ATM, OC3-48, PON, G-PON, 10G-PON, CWDM or DWDM, and SONET
- Simple installation • Plug and play
- No power required
- Protective spring-loaded connector covers (door flanges)
- Small, durable impact resistant portable design

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