



## About the TACBeam® Fiber Optic Modem

Amphenol Fiber Systems International (AFSI) offers the TACBeam® Fiber Optic Modem (FOM) to provide optical-electrical (O-E) and electrical-optical (E-O) conversion for harsh environments. This stand-alone unit features ruggedized optical transceivers integrated in a compact housing with single or dual T1 RJ48 electrical interfaces (additional electrical interfaces available - consult factory) and AFSI's TACBeam® 4-channel expanded beam connector.

The "plug and play" unit allows systems engineers to effortlessly convert their systems to take advantage of the benefits of fiber optics without the need to design and develop harsh environment fiber optic transceiver electronics. Also, the TACBeam® FOM's compact size significantly reduces the footprint devoted to O-E and E-O conversion.

The standard TACBeam® FOM provides conversion for G.703 T1 (1.544Mb/s) electrical signals via a standard RJ-48 to multimode optical signals via AFSI's TACBeam®. The TACBeam® is compliant to the M83526/20 & /21 specification and uses expanded beam technology to reduce the impact of particulate matter on the optical performance. Expanded beam technology also facilitates the cleaning of the connector, reducing maintenance costs and improving up-time. Also, because the connector faces do not touch, the TACBeam® can be mated/demated far more times than traditional physical contact connectors.

## Features & Benefits

- Effortlessly converts systems to fiber optics (longer distances, EMI/RFI immunity, lighter weight) without major system design/redesign
- Compact size significantly reduces O-E/E-O conversion compared to traditional discrete designs
- Harsh environment transceivers support extended temperature range and military vibration/shock requirements
- Converts single or dual T1 signals (2 or 4 fibers)
- Compliant with MIL-PRF 83526/20 & /21 optical interface and G.703 T1 electrical interface
- Expanded beam technology decreases the impact of particulate matter on optical performance, lowers maintenance costs and increases up-time

## Applications

- Military Command Shelters and Platforms
- Military Fire Control
- Satellite Communications
- Fiber Optic Infrastructures
- Sensor Systems
- Vehicles
- Radar

## Specifications

Fiber Supported: 62.5/125 microns  
Output Power: -10dBm (min), -4dBm (max)  
Transmit Extinction Ratio: 8dB (min), 10dB (max)  
Receive Sensitivity: -25dBm (min), -27dBm (typ), 0dBm (max)  
Operating Temperature: -40 to +71°C  
Electrical Interface: Single or dual G.703 T1 via RJ-48  
Power: 3.3 VDC (3.0-3.6) or 12 VDC (5-18) or 24 VDC (18-32); 2W max

1. Output Power measured @ 1.544Mbps, PRBS 2<sup>7</sup>-1, NRZ
2. Receive Sensitivity at BER 10<sup>-12</sup> @ 1.544Mbps, PRBS 2<sup>7</sup>-1, NRZ

Additional configurations available



## How to Order

To order or to obtain a price quote on our AFSI TACBeam® FOM product line, call toll free (US only) at 800.472.4225, international calls please use 1.214.547.2400 or e-mail [sales@fibersystems.com](mailto:sales@fibersystems.com).



## About Amphenol Fiber Systems International

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports reliable and innovative fiber optic interconnect solutions that withstand the harsh environments of military, oil & gas, mining and broadcast applications. After more than a decade, AFSI continues to uphold its position as a global leader in fiber optic interconnect components and systems such as termini, M28876, MIL-ST, TFOCA and the TFOCA-II® connector, which AFSI developed and patented.

AFSI has delivered millions of fiber optic connectors worldwide. Whenever there is a need for superior, cost-effective fiber optic systems and products that will stand up to demanding operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support.

Visit [www.fibersystems.com](http://www.fibersystems.com) for more information.



*AFSI TACBeam® receptacle*



*The M83526/20 compliant AFSI TACBeam® rugged fiber optic connector*