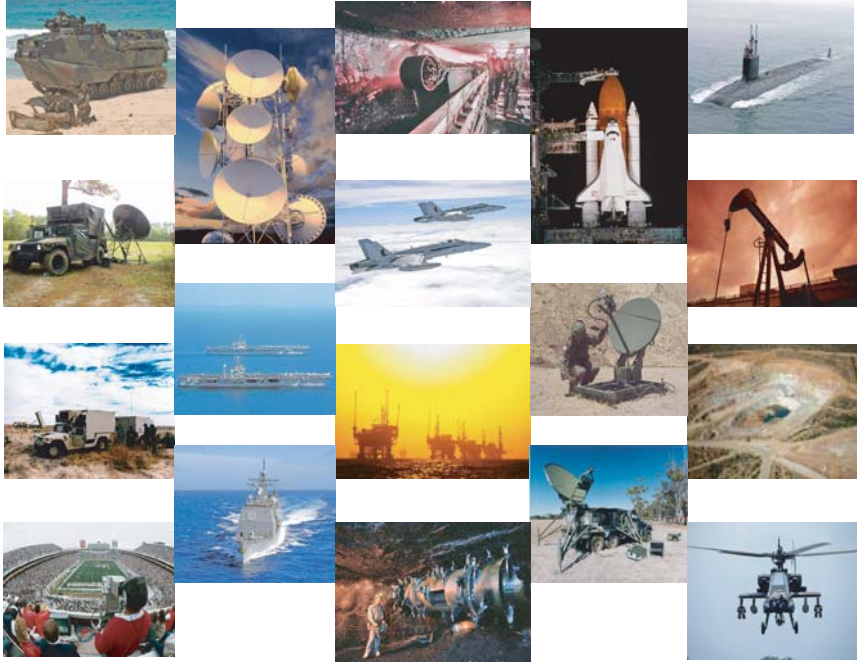


# Providing Fiber Optic Solutions Worldwide



**Amphenol**  
*Fiber Systems International*

*Expertise • Products • Innovation • Capacity*

### Fiber Optic Assemblies

Amphenol Fiber Systems International (AFSI) supplies a wide variety of fiber optic cable assemblies with connectors requiring exacting customer specifications and maximum reliability for major providers and users of military and commercial fiber optic systems throughout the world. AFSI can fabricate virtually any combination of cable and connector technologies ranging from simplex/duplex ST, SC, FDDI to multi-channel, high density M28876, M83526, M38999, THD and hermaphroditic cylindrical fiber optic connectors. Our products address the needs and requirements of permanent fiber optic systems in offices and plants to deployed, tactical systems in extreme and harsh environments. AFSI's fiber optic engineers develop and maintain standard fabrication and polishing processes to ensure consistent quality.



### TFOCA Connectors and Assemblies

The TFOCA connector series is a direct replacement for the connector portion of the US Army's legacy TFOCA (Tactical Fiber Optic Cable Assembly) equipment. This connector series is known simply as "TFOCA." The AFSI TFOCA connector series has been formally approved by CECOM (US Army Communications-Electronics Command Fort Monmouth, NJ) and meets the performance criteria as specified in MIL-C-83526. In addition, AFSI is fully qualified and formally approved by CECOM to fabricate cable assemblies using the AFSI TFOCA connector. These assemblies have been tested in accordance with MIL-C-49292.



### TFOCA-II® Connectors and Assemblies

The TFOCA-II® 4 and 12-channel fiber optic connectors are ideal for environmentally harsh conditions. The TFOCA-II® connector series, designed and developed by AFSI, takes advantage of the latest in fiber optic connectivity technology by utilizing industry standard physical contact ceramic ferrule technology.

The TFOCA-II® connector is designed for minimal maintenance in the field. However, if field-level repair and cleaning is required, all TFOCA-II® connectors can be fully field repaired reusing all components with the exception of the termini. TFOCA-II® connectors have a removable end-cap to allow direct access to the alignment sleeve and termini.



The TFOCA-II® can also be manufactured in stainless steel and brass making it ideal for demanding environments such as oil & gas and mining industries.

### TFOCA-III® Connectors and Assemblies

The TFOCA-III® 6 & 24-channel fiber optic connectors are ideal for environmentally harsh conditions requiring large fiber count interconnects. Similar to TFOCA-II®, the TFOCA-III® design takes advantage of the latest in fiber optic connectivity technology by utilizing industry standard physical contact ceramic ferrules. The TFOCA-III® connector is designed to need little or no maintenance in the field. However, if field-level repair and cleaning is required, all TFOCA-III® connectors can be fully field repaired reusing all components with the exception of the termini. TFOCA-III® connectors have a removable end-cap allowing direct access to the alignment sleeves and termini.



### M28876 Connectors and Assemblies

AFSI offers rugged military and industrial multi-channel fiber optic connectors for deployable, shipboard, outdoor and fixed single mode and multimode system requirements qualified to MIL-PRF-28876. These connectors are designed to provide exceptional optical performance in applications with extremely severe environmental conditions. Plugs and receptacles have six unique key options to prevent configuration problems in systems using multiple connectors. AFSI offers a universal key configuration for both plugs and receptacles, which is ideal for use on test cables. These connectors are also available in COTS (Commercial-Off-The Shelf) versions. The M28876 can be manufactured in stainless steel for corrosive environments.



### Mil or COTS ST

AFSI offers rugged military fiber optic ST connectors for deployable and fixed communication systems requirements. Various versions of connectors and adapters are available to meet a broad range of specific needs and system requirements. The MIL-C-83522 connector is qualified for military applications. This stainless steel connector features a higher spring force allowing it to meet the shock requirements as specified in MIL-C-83522.



AFSI's COTS ST connectors provide the same robustness with a spring force more consistent with commercial ST connectors enabling them to better connect to all other ST connectors and ancillary electronics.

### THD High Series Density Circular Connectors in 48 & 72 Channels

AFSI designed and developed the THD 48 and 72 channel connectors to meet the ever increasing demands of high-density harsh environment fiber optic connectivity. THD series connectors are particularly suited for the reliable connections required for digital communication on and near the battlefield and high bandwidth commercial and industrial applications. Our multi-channel fiber optic connectors, which include TFOCA, TFOCA-II®, TFOCA-III® and THD series of connectors, are designed to provide the best possible optical performance for applications with extreme environmental conditions. The THD series demonstrates AFSI's unchallenged leadership of the high-density tactical fiber optic connector market.



### Fiber Optic Termini

AFSI's M29504/14 and /15 fiber optic termini are qualified to MIL-T-29504A and MIL-PRF-29504B specifications. This series of fiber optic termini provide superior optical and mechanical performance and are compatible with M28876 and comparable military style connectors.



Our M29G1000 and M29H1000 series fiber optic termini for use in D38999 connectors, provide superior optical and mechanical performance and are designed to meet the stringent requirements of MIL-T-29504/4 and /5 requirements.

### Electrical to Optical Conversion Systems

AFSI offers custom, fiber optic interconnect systems, featuring integrated electrical media conversion capability. These turnkey fiber optic data transport systems are capable of various data rates and formats. These systems can be used to interface to common data formats at the electrical connector with the electrical-optical-electrical (E-O-E) conversion occurring within the connector package.



### Training

AFSI offers custom training on all types of fiber optic terminations including COTS (Commercial-Off-The-Shelf) and AFSI's product line. Training typically encompasses fiber optic theory, connector termination, testing and troubleshooting. AFSI can provide training at the customer's site or at our state-of-the-art training facility.

### Termination Kits and Tools

AFSI offers a complete line of termination, consumables and test kits for most types of connectors available in the fiber optic market today. In addition to our kits, we also sell individual tools to replace broken or misplaced tools.

### Expertise

AFSI is a global leader in rugged fiber optic interconnect and optical system technologies. Markets or industries utilizing AFSI's products include:

- Tactical Deployed Communication Systems
- Shipboard Communication and Navigation Systems
- Ship-to-Shore (Pierside) Communications
- Network Disaster Recovery
- Deployable Seismic Systems
- Optical Sensing
- Marine and Land-based Geoseismic Applications
- Broadcast Systems
- Aeronautical and Airframe Applications
- Oil and Gas Applications
- Mining Applications

### Products

AFSI provides a wide range of products including:

- Fiber optic connectors and assemblies
- Fiber optic termini
- Optical switching systems
- Custom Electrical-to-Optical-to-Electrical (E-O-E) solutions
- System design services
- Ancillary products such as training, termination kits, test equipment and assembly tools

### Innovation

AFSI's development and patent of the TFOCA-II® connector places it on the leading edge of technology, providing a more reliable tactical connector than was previously available. AFSI holds a number of other fiber optic interconnect technology patents.

### Capacity

In August 2002, AFSI relocated to a 50,000 square foot facility in Allen, Texas, about 25 miles north of downtown Dallas. This has permitted a significant expansion of manufacturing capacity space and development laboratories as well as the ability to maintain a large inventory to facilitate lower lead times.

### 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 in business, 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. Altogether, AFSI has delivered millions of fiber optic connectors in more than 22 countries. 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.

For more information about AFSI, please visit our web site at [www.fibersystems.com](http://www.fibersystems.com)

