



M29504 /14 /15

About M29504 /14 /15

M29504/14 and /15 termini from Amphenol Fiber Systems International (AFSI) are qualified to 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.

Unlike other M29504/14 & /15 designs, the AFSI design is precision engineered allowing the ferrule to press fit and bottom out within the termini bodies. This strict tolerance management eliminates loose fit or epoxy construction and yields better overall performance under stressful environmental conditions.

The M29504/15 features a ceramic alignment sleeve maximizing its ability to hold extremely tight dimensional tolerances while maintaining accurate concentricity, providing superior mechanical and optical performance.

Features and Benefits

- Available in long and short pin (/14), long and short socket (/15), and dummy (/03)
- Precision ferrule alignment with captivated split zirconia sleeves
- 2mm OD ferrule
- Wide configuration selection
- Superior optical performance
- Front release system
- Custom sizes available (COTS only)
- Integrated environmental seal on each terminus.

- Qualified to MIL-PRF-29504B
- Interchangeable with all qualified M29504/14, /15 termini
- Compatible with all qualified M28876 connectors
- Pre-radius zirconia ferrule tip, provides optimal insertion loss performance
- Precision “press fit” terminus design
- Ceramic alignment sleeve
- Crimp sleeve available
- Laser marked TICC codes eliminate the need to decipher complex color code bands
- Each terminus individually packaged and labeled for easy storage and use

Applications

- US Navy shipboard, surface and submarine, mission critical combat and communication systems
- Mobile Tactical Shelters and Electronic Battlefield Networks
- Mobile Emergency Telecommunications Stations
- Deployable outdoor, harsh environment
- Single mode or multimode

Materials

- **Ferrules:** Zirconia ceramic
- **Termini bodies:** Stainless steel, passivated
- **Retention clips:** Beryllium copper
- **Alignment sleeves:** ceramic core
- **Alignment sleeve hood:** Beryllium copper
- **O-ring seal:** Fluorosilicone

Certifications and Qualifications

- MIL-PRF-29504B QPL Listed

How to Order

For more information on how to order or to obtain a price quote on any of our M29504 Products, please call us at 800.472.4225. For international calls please dial 214.547.2400 or email us at info@fibersystems.com

Options Available

1. Long or short Pin (/14) (multiple ferrule sizes).
2. Long or short Socket (/15) (multiple ferrule sizes).
3. Dummy (/03).
4. Amphenol Fiber Systems International offers a complete line of termini insertion, extraction and polishing tools, which are compatible with NAVSEA specifications. These tools can be used with AFSI M29504/14, /15 termini or other manufacturer's M29504/14 & M29504/15 termini. Tools include termini extraction, termini insertion, alignment sleeve extraction, alignment sleeve insertion and single position polishing puck.

M29504 /14 /15 Termini Specifications

Specification	Measurement/Detail
Back reflection	<-40 dB – PC polish, <-55 dB – enhanced PC polish
Insertion loss	0.45dB typical (measured with 62.5/125mm fiber @1310nm)
Operating temperature	-65°C to +150°C (dependent on epoxy and cable)
Temperature cycling	-54°C to +65°C
Temperature shock	-55°C to +85°C
Temperature life	+110°C for 240 hours
Vibration	68 G random
Mechanical shock	500 G
Mating durability	2,000 cycles
Salt spray	500 hours
Pressure sealing (Wiper seal)	2,000 psi
Terminus mating force	5 lbs. [22.2 N] nominal
Terminus retention force	22 lbs. [97.9 N]
Cable retention force	25 lbs. [111.2 N] (dependent on cable construction)
Weight	1.0 grams, max

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