



M29504 /14 & /15

About M29504 /14 & /15

M29504/14 & /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 terminus 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.

Applications

- US Navy shipboard, surface and submarine, mission critical combat and communication systems
- Mobile Tactical Shelters and Electronic Battlefield Networks
- Mobile Emergency Telecommunications Stations

Features and Benefits

- Pre-radius zirconia ferrule tip provides optimal insertion loss performance
- Laser marked TICC codes eliminate the need to decipher complex color-code bands
- Precision ferrule alignment with captivated split zirconia sleeves
- Wide configuration selection
- Superior optical performance
- Custom sizes available (Commercial-off-the-Shelf only)
- Integrated environmental seal on each terminus
- Precision “press fit” terminus design
- Each terminus individually packaged and labeled for ease of identification, storage and use

Materials

- **Ferrules:** Zirconia ceramic
- **Termini bodies:** Stainless steel, passivated
- **Retention clips:** Beryllium copper
- **Alignment sleeves:** Ceramic
- **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

| TICC Dash Number | | | | | | | | Maximum Fiber Diameter |
|------------------------------|-------------|----------------------|------------------------|---------------------------------|-------------|----------------------|------------------------|------------------------------|
| M29504 /14-XXXX Pin Terminus | | | | M29504 /15-XXXX Socket Terminus | | | | |
| Multimode | Single Mode | Multimode (Short) | Single Mode (Short) | Multimode | Single Mode | Multimode (Short) | Single mode (Short) | Microns |
| 4131 | 4141 | 4151 | 4161 | 4171 | 4181 | 4191 | 4201 | 126.0 |
| 4135 | 4145 | 4155 | 4165 | 4175 | 4185 | 4195 | 4205 | 142.0 |

Bold items are most common styles. AFSI is qualified on all M29504 /14 & /15 products. Contact the factory for other ID sizes.

Note 1. Add a "C" at the end of the part number for included crimp sleeve.

Note 2. M29504/03-4038 - Dummy Terminus

Options Available

AFSI 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 & /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

Back Reflection
Insertion Loss
Operating Temperature
Temperature Cycling
Temperature Shock
Temperature Life
Vibration
Mechanical Shock
Mating Durability
Pressure Sealing (Wiper Seal)
Terminus Mating Force
Terminus Retention Force
Cable Retention Force
Weight
Ozone Exposure
Impact

Measurement/Detail

<-40 dB – PC polish, <-50 dB – enhanced PC polish
0.45dB typical (measured with 62.5/125mm fiber @1310nm)
-65°C to +150°C (dependent on epoxy and cable)
-62°C to +70°C per MIL-STD-1344, Method 1003C
-54°C to +65°C per MIL-STD-1344, Method 1003
+110°C for 240 hours
MIL-STD-1344, Method 2005, Condition II & VI
MIL-STD-901C, Grade A
500 cycles per EIA-455-21
2,000 psi
5 lb [22.2 N] nominal
22 lb [97.9 N]
25 lb [111.2 N] (dependent on cable construction)
1.0 grams, max
MIL-STD-1344, 1007
MIL-STD-1344, Method 2015

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 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.

For more information about AFSI, please visit our web site at www.fibersystems.com

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