FEATURES & BENEFITS
Low IMD and low VSWR provides improved system performance
Self-flaring design for corrugated cable ensures ease of installation with standard hand tool
Limited internal junctions reduce sources of IMD
Silver-plated contacts and silver or white bronze-plated bodies deliver a high conductivity and corrosion resistance for a long, trouble-free life
Continuous 360° outer conductor contact is proven to minimize IMD (over spring finger contacts)
Easy-Hex coupling nut allows tightening by hand or with a standard wrench for ease of mating

APPLICATIONS
Antennas
Base Stations
Broadcast
Components (Control)
Lightning Protection
Satellite Communications

7/16 Connectors
The 7/16 series name derives from the metric dimensions of the connector interface: 7mm OD of inner contact, 16 mm ID of outer contact. 7/16 connectors are designed for use in communications systems with power levels of 100 watts per channel. Long popular in Europe, the 7/16 interface has gained acceptance in the U.S. for its ability to operate at elevated power levels.

Amphenol’s 7/16 DIN connectors are available for corrugated cable (both Annular and Superflex), and standard cable. In addition, Amphenol produces a number of custom 7/16 DIN connectors to meet unique customer requirements.

RF coaxial connectors are the most important element in the cable system. Corrugated copper coaxial cables have the potential to deliver all the performance your system requires, but they are often limited by the performance of the connectors. Corrugated connectors have been designed from the ground up to deliver optimum performance, while retaining ease of installation. Intermodulation distortion, a major concern in today’s communications systems, is consistently low with these connectors. Typical performance is -125 dBm (-168 dBc). Amphenol’s in-house IMD measurement capability gives us the unique ability to understand the effects of connector design elements on IMD generation so that we can design the best performing connectors in the industry.

### 7/16 Corrugated Cable Specification

**Electrical**

- Impedance: 50 Ω
- Operating Frequency: 5.20 GHz maximum
- Insertion Loss Maximum: 0.05 \( \sqrt{f} \) dB (\( f \) = Frequency in GHz)
- Shielding Effectiveness: 125 dB minimum

**Mechanical**

- Mating: M29 x 1.5 threaded coupling
- Inner Attachment Method: Captivated
- Outer Attachment Method: Compression
- Connector Durability Test: 500 Cycles (per DIN 47275 part 2/10.82, section 2.10)
- Assembly Torque: Positive stop, 18/22 lb-ft. (25/30 n-m)

**Environmental**

- Temperature Range: -40˚C to +150˚C

### 7/16 Semi-Rigid & RG Cable Specifications

**Electrical**

- Impedance: 50 Ω
- Frequency Range: 7.0 GHz maximum
- VSWR: 1.3 maximum @ 7.0 GHz
- Insulation Resistance: 5000 Megohms minimum

**Mechanical**

- Mating: M29 x 1.5 threaded coupling
- Captivated Contact: All configurations (unless otherwise noted)

**Environmental**

- Temperature Range: -40˚C to +150˚C