Amphenol® RF

Global RF Solutions

7/16

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

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.

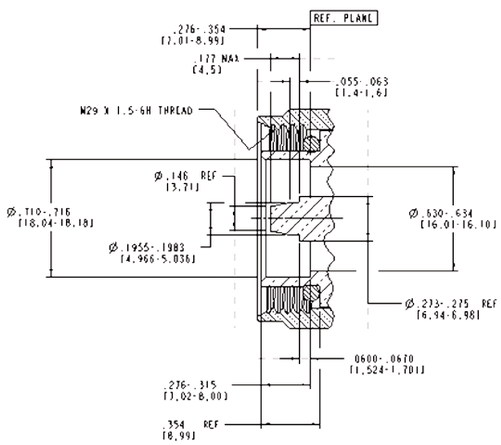
RF coaxial connectors are the most important element in the cable system. Corrugated copper coaxial cables have the potential to deliver all the performance your system requires, but they are often limited by the performance of the connectors. Corrugated connectors have been designed from the ground 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

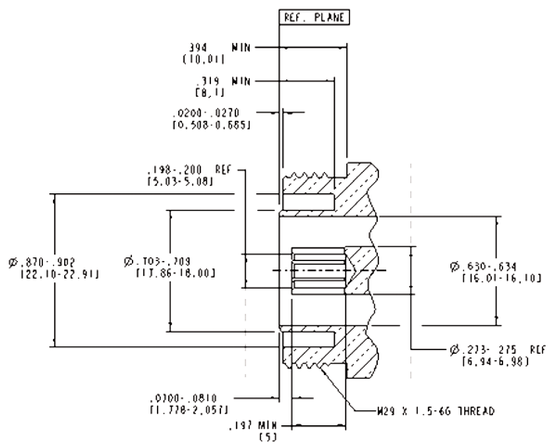
Electrical	
Impedance	50 Ω
Operating Frequency	5.20 GHz maximum
Insertion Loss Maximum	0.05 √f dB (f = Frequency in GHz)
Shielding Effectiveness	125 dB minimum
Mechanical	
Mating	M29 x 1.5 threaded coupling
Inner Attachment Method	Captivated
Outer Attachment Method	Compression
Connector Durability Test	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



7/16 Plug



7/16 Jack

Rev. C

Amphenol RF • 4 Old Newtown Road • Danbury, CT 06810
Telephone: 800.627.7100 • Fax: 203.796.2032 • www.amphenolrf.com
Amphenol RF Asia • Block DM2, Tong Wei Industrial District • Industry General Co.
Gong Ming Town • Bao An District Shenzen 518132, P.R. China

Amphenol® RF
Global RF Solutions