

Temp-Flex® Foam-Core Ultra-Low-Loss Coaxial Microwave Cable

molex®

Providing both customized and off-the-shelf options, Temp-Flex® Foam-Core Ultra-Low-Loss Coaxial Microwave Cable combines space savings with an effective dielectric that eliminates “phase knee” and provides ease of termination

Features and Benefits

Fluoropolymer insulation eliminates the “phase knee” effect

Delivers linear electrical length (stable performance) at room temperature

Achieves 80% velocity of propagation (VOP) loss characteristics compared with air-enhanced PTFE

Delivers reliable signal performance and lower loss characteristics (e.g., insertion loss) than competitors’ air-enhanced PTFE dielectric

High-temperature, thermally and mechanically stable dielectric

Withstands soldering temperatures to provide ease of termination

Product offering down to 1.194mm (.047”) shield OD

Combines high performance with space savings (limited competition)

Shielding effectiveness better than 100 dB at high frequency

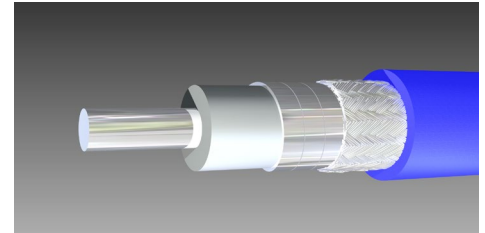
High RF noise immunity and low EMI

Tight impedance control +/- 1 Ohm

Superior RF performance at high frequencies

Closed-cell foam structure

Provides moisture barrier



Temp-Flex® Foam-Core Ultra-Low-Loss Coaxial Microwave Cable

Applications

Data / Telecommunications / Networking

Test and measurement

Medical

Imaging equipment

Patient monitors

Surgical equipment / devices

Ultrasound equipment

Aerospace and Defense

Radar

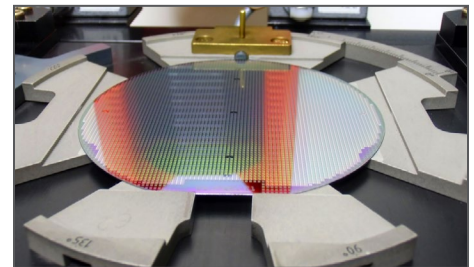
Missiles

Satellites

Military vehicle



Portable Ultrasound Equipment



Device Under Test (DUT) Equipment

Temp-Flex® Foam-Core Ultra-Low-Loss Coaxial Microwave Cable



Specifications

REFERENCE INFORMATION

Packaging: 304.8mm (12-inch) reels
UL File No.: E61522, Style: 1354
Mates With: High-frequency RF connectors(i.e., SMA, SMP, SMPM, 2.92mm, 2.40mm)
Use With: RF connectors
Designed In: Inches
RoHS: Yes
Halogen Free: Halogen-free coax jacket option available

ELECTRICAL

Impedance: 50 Ohms \pm 1; 75 Ohms \pm 2-3
Nominal Time Delay: 0.387 to 0.405 ns/m (1.270 to 1.33 ns/ft) (construction dependent)
Time Delay Tolerance:
 \pm 3.038 ps/m (\pm 10 ps/ft) typical
 High-performance products option:
 \pm 2.13 ps/m (\pm 7 ps/ft)
Insertion Loss: Dependent on specific order number
Cutoff Frequency:
 Dependent on specific order number
Shielding Effectiveness: Dependent on shield type

PHYSICAL

Fire Resistance: V-0 (UL 1351)
Operating Temperature: Dependent on jacket material
FEP: -65 to +200°C
Polyurethane: -30 to +75°C

CONSTRUCTION

Custom Options Available
Center Conductor: 29 to 19 AWG,
 solid or stranded, silver-plated copper
Dielectric: Foamed fluoropolymer
Shield: Helical Foil and braid
Jacket Material: FEP, polyurethane, others

Ordering Information

Series No.	Cable Type	Ohms	Wire Size (AWG)
100193	Foam-Core Ultra-Low-Loss Coaxial Microwave Cable	50, 75	19 to 29

www.molex.com/tempflex/foamcoremw.html