

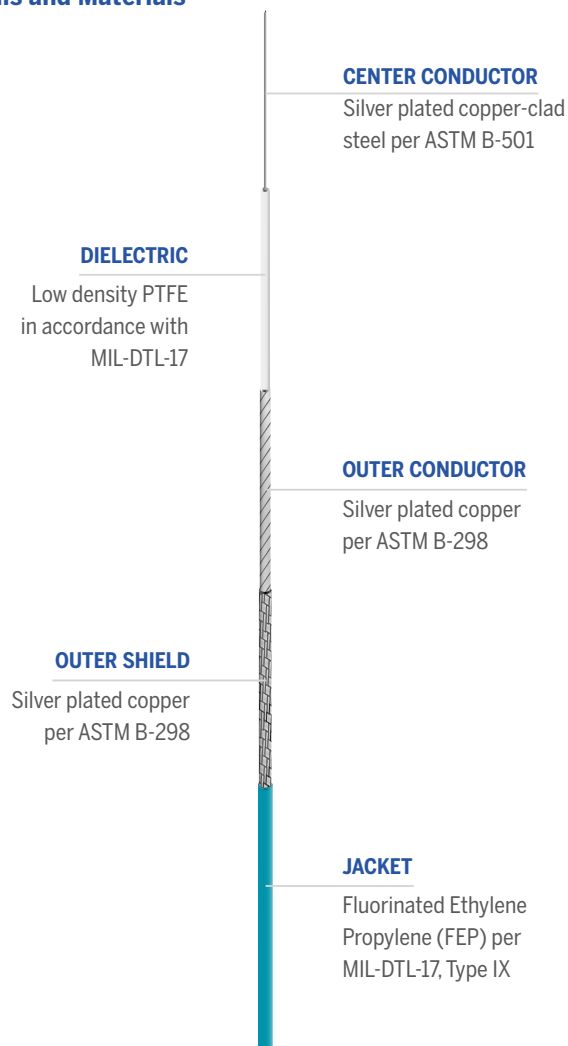
UFC092D

UTiFLEX®



UFC092D is the ideal coaxial solution for high-frequency applications in aerospace, defense, and advanced test systems. Its robust construction and reliable electrical performance make it perfect for use in radar systems, electronic warfare platforms, and space-constrained test environments. When design demands consistent performance under pressure, trust UTiFLEX® to deliver.

Details and Materials



 **Impedance**
50 Ohms

 **Operating Temperature**
-65°C to +165°C

 **RoHS**
Compliant

Mechanical/Physical Properties

| | | |
|--|----------|---------|
| Center Conductor Diameter | in | 0.0201 |
| | mm | 0.51 |
| Dielectric Diameter | in | 0.060 |
| | mm | 1.53 |
| Outer Conductor Diameter | in | 0.0680 |
| | mm | 1.73 |
| Outer Shield Diameter | in | 0.079 |
| | mm | 2.01 |
| Jacket Diameter | in | 0.092 |
| | mm | 2.34 |
| Jacket Wall Thickness | in | ≥ 0.004 |
| | mm | ≥ 0.102 |
| Weight | grams/ft | ≤ 5.0 |
| | grams/m | ≤ 16.4 |
| Min Static Bend Radius | in | 0.130 |
| | mm | 3.30 |
| Dynamic Flex Life - Snake ³ | cycles | 3,000 |
| Center Conductor Strands | | 1 |

Electrical Properties

| | | |
|---------------------------------|-----------------------|--------------|
| Velocity of Propagation | (%) | 77 |
| RF Shielding | (dB) at 1 GHz | ≥ 100 |
| Capacitance | pF/ft | 26.45 |
| | pF/m | 86.79 |
| Maximum Frequency | GHz | 70 |
| Corona Extinction Voltage | VRMS @ 60Hz | 2500 |
| Dielectric Withstanding Voltage | VRMS @ 60Hz | 5000 |
| Insertion Loss Stability | % Change ² | ≤ 5 |
| K1 | Ft (m) | 2.90 (0.686) |
| K2 | Ft (m) | 0.26 (0.009) |

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Maximum Attenuation¹, Power, and VSWR (at 20°C and Sea Level)

| Frequency GHz | Attenuation dB/100ft | dB/m | Power Watts (CW) | VSWR |
|------------------|-------------------------|------|---------------------|----------|
| 0.5 | 15 | 0.49 | 219 | ≤ 1.20:1 |
| 1 | 22 | 0.72 | 154 | ≤ 1.20:1 |
| 5 | 49 | 1.61 | 68 | ≤ 1.20:1 |
| 10 | 69 | 2.26 | 48 | ≤ 1.20:1 |
| 18 | 94 | 3.08 | 35 | ≤ 1.20:1 |
| 26.5 | 115 | 3.77 | 29 | ≤ 1.20:1 |
| 40 | 143 | 4.69 | 23 | ≤ 1.20:1 |
| 50 | 161 | 5.28 | 21 | ≤ 1.25:1 |
| 65 | 186 | 6.10 | 18 | ≤ 1.25:1 |
| 70 | 194 | 6.36 | 17 | ≤ 1.30:1 |

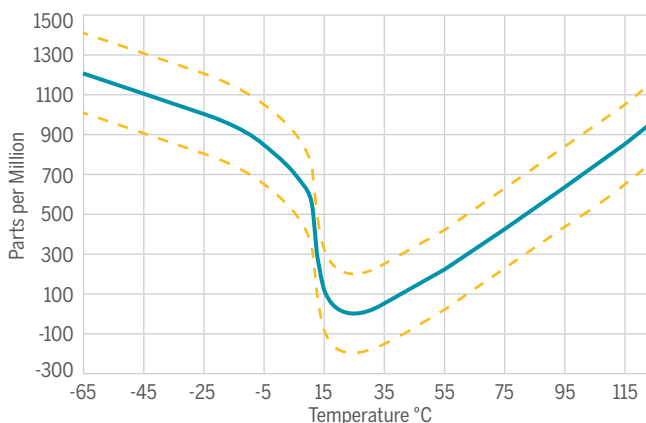
Environmental Properties

| | |
|-------------------------|---|
| Thermal Shock | MIL-STD-202, Method 107, 20 Cycles, -65 to 165 °C (cable and SMA connectors only) |
| Aging Stability | Not Applicable for MIL-DTL-17, Type IX Jackets |
| Vibration | MIL-STD-202, Method 204, Test Condition B |
| High Pressure | Pressure increased ≤ 10 bar/min to 100 +/- 2 bar for 12 hrs. |
| Humidity | MIL-STD-810, Method 507.5, Procedure I and II |
| Salt Fog | MIL-STD-810, Method 509 |
| Sand and Dust | MIL-STD-810, Method 510, Procedure I |
| Stress Crack Resistance | MIL-DTL-17, Paragraph 4.8.17 |
| Cold Bend Test | MIL-DTL-17, Paragraph 4.8.19 |
| Outgassing | Less than 1% TML and 0.1% CVM |
| Radiation Resistance | 30 Mrads |
| Flammability | 14 CFR Part 25, Appendix F, Part I (b)(7), 60° flammability test |

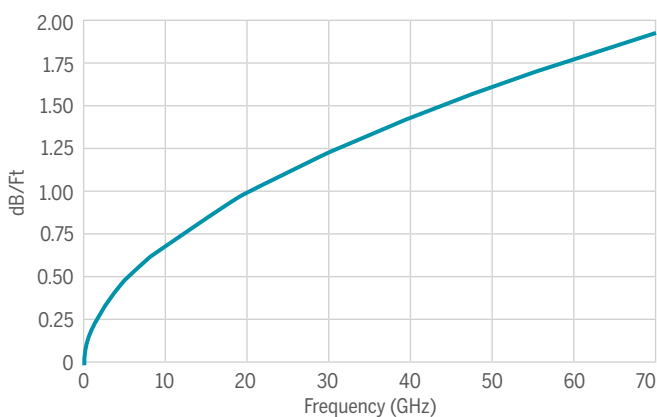
Notes

1. Maximum Attenuation (db./100Ft) = K1vF + K2F where F is Frequency in GHz.
2. Insertion Loss change, while vibrated at a frequency of 6 Hz and an amplitude of 1 inch.
3. Snake test. One end of a 3-ft sample is fixed. The other end is moved inward along the axis of the sample forcing the cable into a "U" shape. It then returns to straight configuration for one flex cycle.
4. Cable assemblies of equal length and connectors made from the same cable manufacturing lot shall phase track within 200 PPM of each other.

Typical Phase Change vs. Temperature⁴



Maximum Insertion Loss



Maximum Power Handling

