

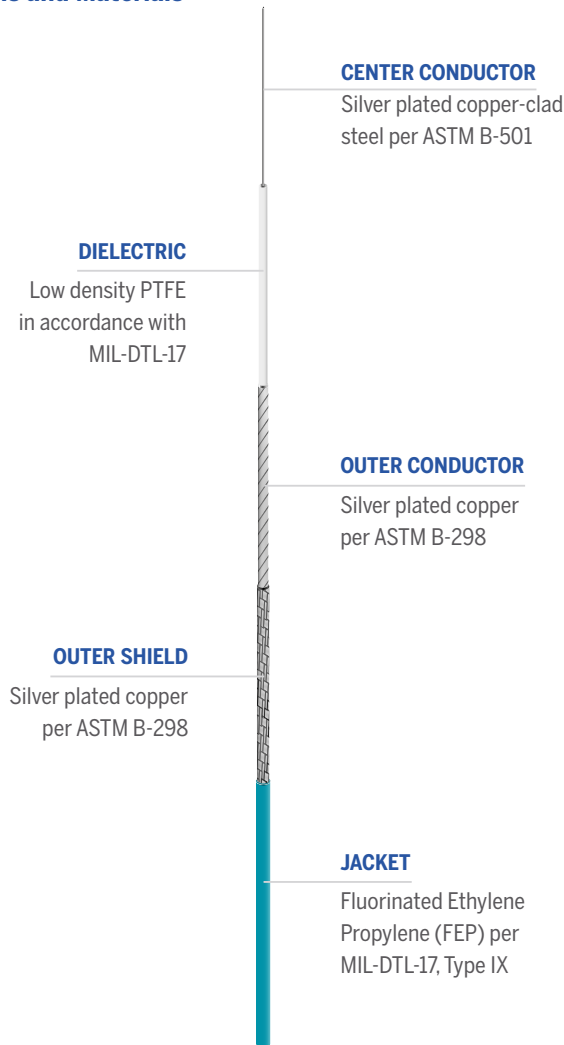
# UFC092D

## 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



<b>Impedance</b> 50 Ohms	<b>Operating Temperature</b> -65°C to +165°C	<b>RoHS Compliant</b>
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### Mechanical/Physical Properties

Jacket Diameter	in	0.092
	mm	2.34
Weight	grams/ft	≤ 5.0
	grams/m	≤ 16.4
Min Static Bend Radius	in	0.130
	mm	3.30
Dynamic Flex Life - Snake <sup>3</sup>	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 <sup>2</sup>	≤ 5
K1	Ft (m)	2.90 (0.686)
K2	Ft (m)	0.26 (0.009)

### Maximum Attenuation<sup>1</sup>, Power, and VSWR (at 20°C and Sea Level)

Frequency	Attenuation		Power	VSWR
GHz	dB/100ft	dB/m	Watts (CW)	
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

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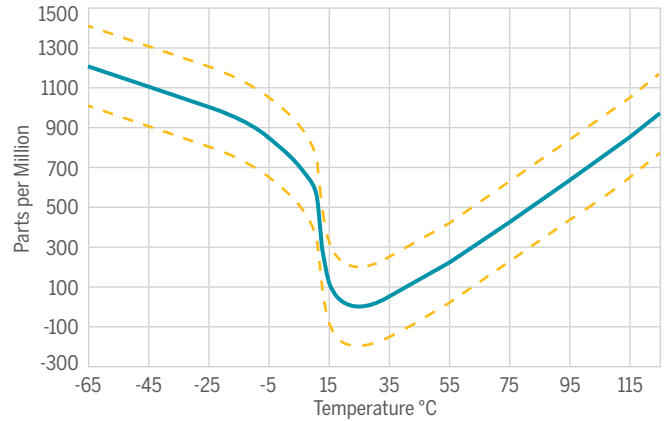
## Environmental Properties

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% CVCM
Radiation Resistance	30 Mrads
Flammability	14 CFR Part 25, Appendix F, Part I (b)(7), 60° flammability test

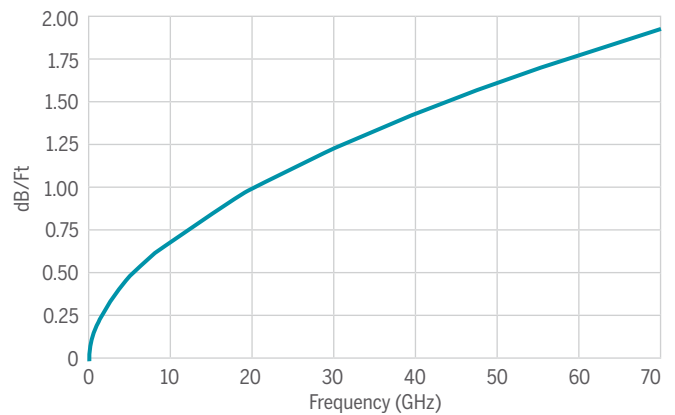
## Notes

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. Temperature<sup>4</sup>



## Maximum Insertion Loss



## Maximum Power Handling

