

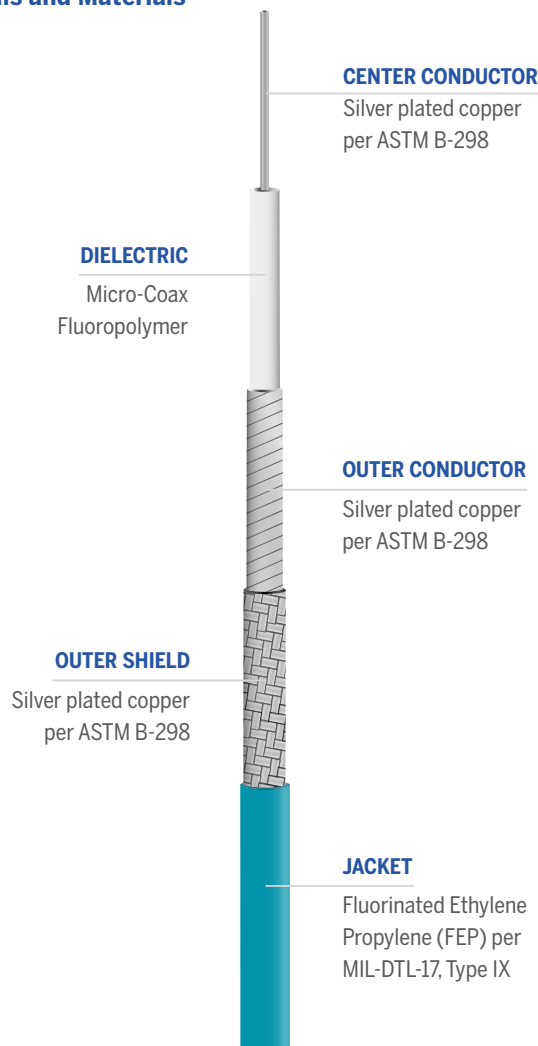
UFP311A

UTiFLEX®



UFP311A 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 +125°C

 **RoHS**
Compliant

Mechanical/Physical Properties

Center Conductor Diameter	in	0.0907
	mm	2.30
Dielectric Diameter	in	0.245
	mm	6.22
Outer Conductor Diameter	in	0.2570
	mm	6.53
Outer Shield Diameter	in	0.283
	mm	7.19
Jacket Diameter	in	0.311
	mm	7.90
Jacket Wall Thickness	in	≥ 0.010
	mm	≥ 0.254
Weight	grams/ft	≤ 50.2
	grams/m	≤ 164.7
Min Static Bend Radius	in	TBD
	mm	TBD
Dynamic Flex Life ³	cycles	TBD
Center Conductor Strands		1

Electrical Properties

Velocity of Propagation	(%)	83
RF Shielding	(dB) at 1 GHz	≥ 100
Capacitance	pF/ft	24.54
	pF/m	80.51
Maximum Frequency	GHz	18
Corona Extinction Voltage	VRMS @ 60Hz	TBD
Dielectric Withstanding Voltage	VRMS @ 60Hz	TBD
Insertion Loss Stability	% Change ²	≤ 5
K1	Ft (m)	4.72 (0.155)
K2	Ft (m)	0.64 (0.021)

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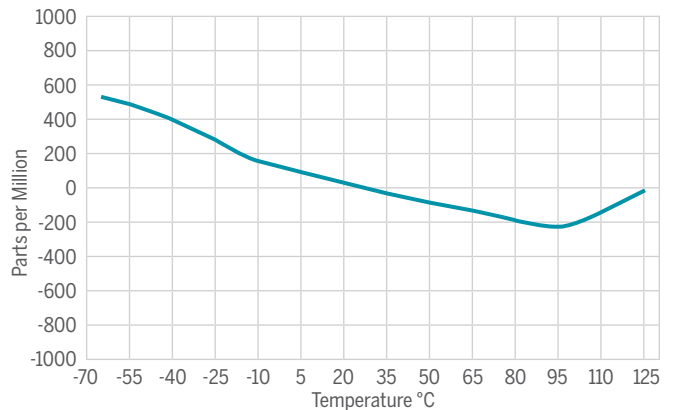
Maximum Attenuation¹ and VSWR⁴ (at 20°C and Sea Level)

Frequency GHz	Attenuation dB/100ft	dB/m	VSWR
0.5	4	0.13	≤ 1.20:1
1	6	0.20	≤ 1.20:1
5	14	0.46	≤ 1.20:1
10	22	0.72	≤ 1.20:1
18	32	1.05	≤ 1.20:1

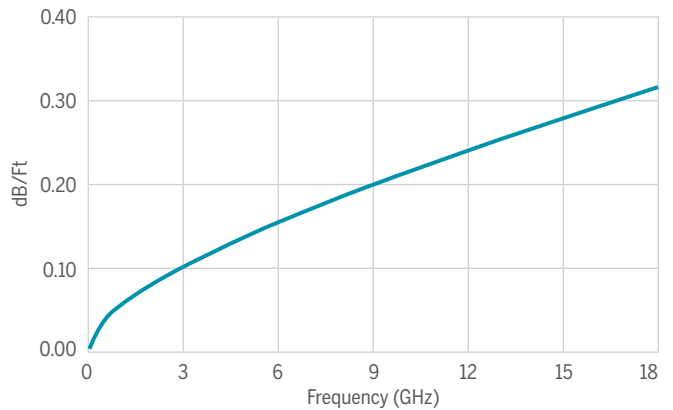
Environmental Properties

Thermal Shock	MIL-STD-202, Method 107, 20 Cycles, -65 to 125 °C (cable and SMA connectors only)
Stress Crack Resistance	MIL-DTL-17, Paragraph 4.8.17, except at 125 °C
Cold Bend Test	MIL-DTL-17, Paragraph 4.8.19

Typical Phase Change vs. Temperature



Maximum Insertion Loss



Notes

- Maximum Attenuation (db./100Ft) = K1vF + K2F where F is Frequency in GHz.
- Insertion Loss change, while vibrated at a frequency of 6 Hz and an amplitude of 1 inch.
- Snake test: A 3-ft sample is fixed on one end. 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.
- VSWR testing to be performed on 20-foot minimum lengths with gating used to remove connector contributions. Minimum frequency points shall be 1601.