

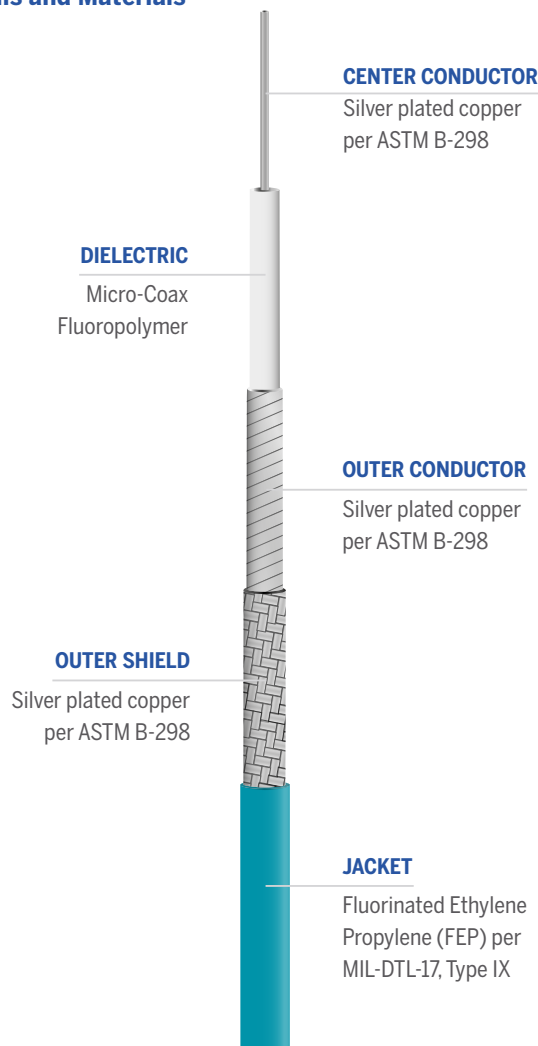
# UFP311A

## 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

Jacket Diameter	in	0.311
	mm	7.90
Weight	grams/ft	≤ 50.2
	grams/m	≤ 164.7
Min Static Bend Radius	in	TBD
	mm	TBD
Dynamic Flex Life <sup>3</sup>	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 <sup>2</sup>	≤ 5
K1	Ft (m)	4.72 (0.155)
K2	Ft (m)	0.64 (0.021)

### Maximum Attenuation<sup>1</sup> and VSWR<sup>4</sup> (at 20°C and Sea Level)

Frequency	Attenuation		VSWR
GHz	dB/100ft	dB/m	
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

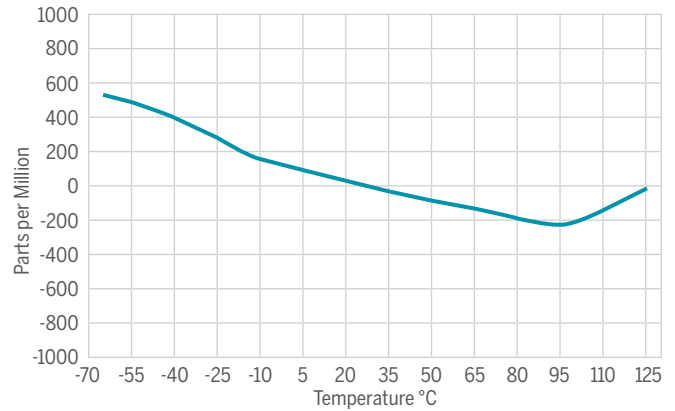
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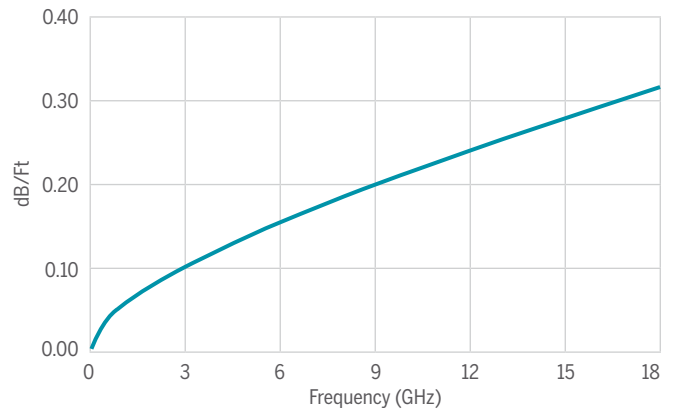
## Environmental Properties

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

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: 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.
4. VSWR testing to be performed on 20-foot minimum lengths with gating used to remove connector contributions. Minimum frequency points shall be 1601.