

UTIFLEX PRODUCT SPECIFICATION

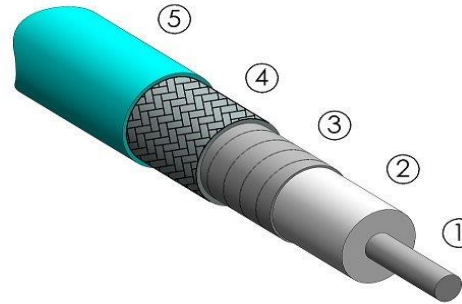
Part Description
UFC092D

Item Number
105864

Rev.
A

Construction Layers and Standards

1	Center Conductor	Silver plated copper-clad steel per ASTM B-501
2	Dielectric	Low density PTFE in accordance with MIL-DTL-17
3	Outer Conductor	Silver plated copper per ASTM B-298
4	Outer Shield	Silver plated copper per ASTM B-298
5	Jacket	Fluorinated Ethylene Propylene (FEP) per MIL-DTL-17, Type IX
6	Cable Marking	MICRO-COAX UFC092D Lot Number - Sublot



Mechanical / Physical Properties

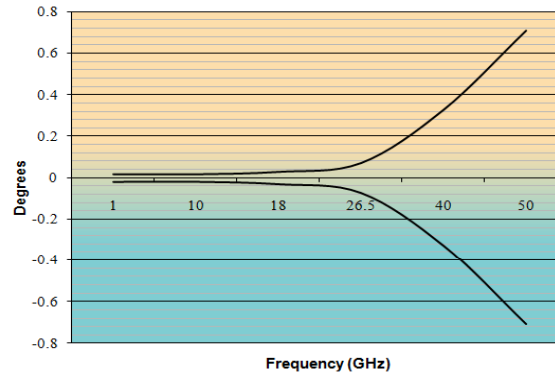
Temperature Range (°C)	-65 / +165
Center Conductor Diameter (inch)	0.0201
Dielectric Diameter (inch)	0.0595
Outer Conductor Diameter (inch)	0.0680
Outer Shield Diameter (inch)	0.0790
Jacket Diameter (inch)	0.0920 ± 0.0040
Jacket Wall Thickness (inch)	≥ 0.003
Center Conductor Strands	1
Weight (grams/ft)	≤ 5.0
Minimum Static Bend Radius (inch)	0.130
Flex Life ¹ (Cycles)	3,000

Environmental Properties

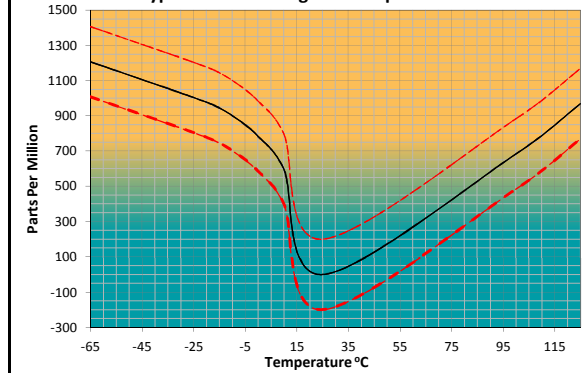
Where applicable after each test, the assembly shall show no damage, insertion loss and VSWR shall remain within the specified limits, and connector interface dimensions remain within the specified limits of MIL-PRF-39012.

Thermal Shock	MIL-STD-202, Method 107, 5 Cycles, -55 to 165°C (cable and SMA connectors only)
Aging Stability	MIL-DTL-17, Paragraph 4.8.16, 165°C for 168 hours (cable and SMA connectors only)
Vibration	MIL-STD-202, Method 204, Test Condition B
High Pressure	Pressure increased ≤ 10 bar/min to 100 +/- 2 bar for 12 hrs.
Low Pressure	SAE-AS-13441, Method 1004.1
Humidity	MIL-STD-810, Method 108, Procedure 1 and 2
Salt Fog	MIL-STD-810, Method 509, Procedure 1
Sand and Dust	MIL-STD-810, Method 510, Procedure 1
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

Phase Change Window vs Bending⁴



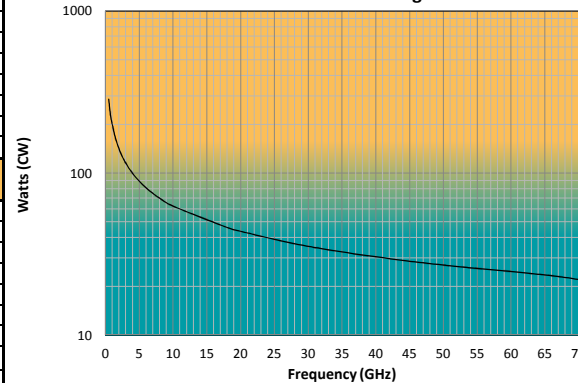
Typical Phase Change vs. Temperature⁵



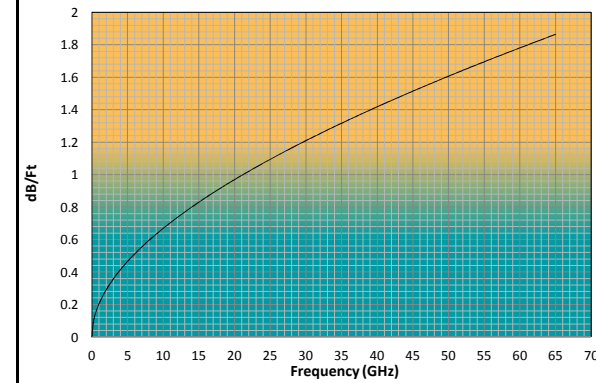
Attenuation¹, Power, and VSWR at 20°C and Sea Level

Frequency (GHz)	dB / 100ft	Watts (CW)	VSWR
0.5	14.0	285.8	1.20
1	20.0	201.5	1.20
5	46.0	89.1	1.20
10	67.0	62.5	1.20
18	92.0	46.1	1.20
26.5	113.0	37.7	1.25
40	142.0	30.4	1.25
50	161.0	27.0	1.30
70	194.0	23.5	1.35

Maximum Power Handling



Maximum Insertion Loss



Electrical Properties

Impedance (Ohms)	50
Velocity of Propagation (%)	78
RF Shielding (dB)	≥ 100
Capacitance (pF/Ft)	25.65
Cutoff Frequency (GHz)	74.43
Corona Extinction (VRMS @ 60Hz)	2500
Dielectric Withstanding (VRMS @ 60Hz)	5000
Insertion Loss Stability (% Change) ²	≤ 5
K1 : K2	19.85 : 0.405

Notes:

- Attenuation (dB/100ft) = K1*F + K2*F² where F is Frequency in GHz
- Insertion Loss change, while being vibrated at a frequency of 6 Hz and an amplitude of 1 inch.
- Connect both ends of cable to flex (snake) machine. The movement of the flex machine arm from 36 inches to 18 inches, stopping, and then returning to 36 inches shall be 1 flex cycle.
- Typical phase change vs bending is cable wrapped 360° around a 3 inch diameter mandrel.
- Cable assemblies of equal length and connectors made from the same cable manufacturing lot shall phase track within 200 PPM of each other.

Copyright Micro-Coax, Inc.

Specifications subject to change. Please contact Micro-Coax, Inc. for the latest document revision.

Rev.	ECN #	DATE	INIT.	APPROVALS
A	155260	5/27/2015	NAP	DWN NAP 5/27/2015 ENG NAP 5/27/2015 QA DMD 6/3/2015

FSCM NO. 64639



Micro-Coax, Inc.
206 Jones Blvd.
Pottstown, PA 19464

UFC092D CABLE SPECIFICATION