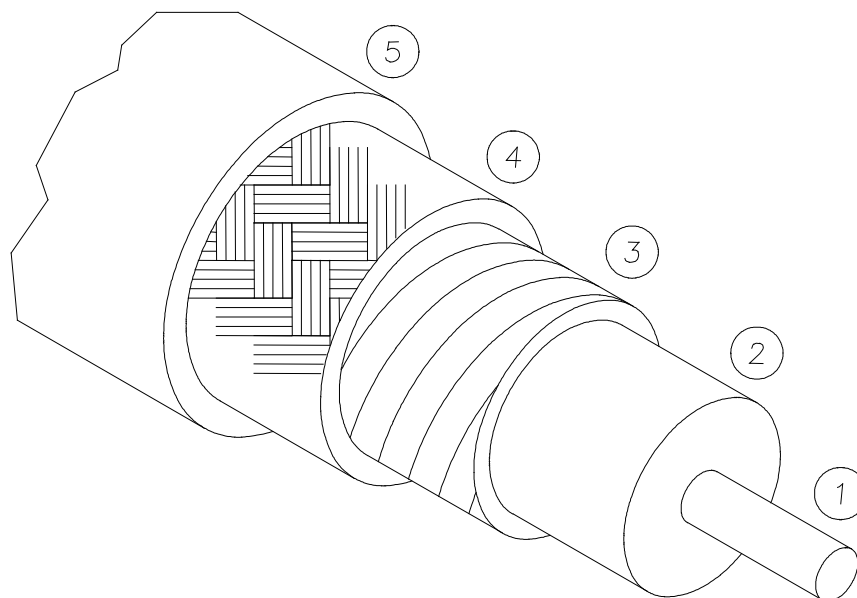


MICRO-COAX
SPECIFICATION FOR
UFA125A
HIGH PERFORMANCE FLEXIBLE
MICROWAVE CABLE



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REV	ECN #	DATE	INIT.	APPROVALS		FSCM NO. 64639	MICRO-COAX [®] <i>Leading the way in transmission line solutions.</i>	Micro-Coax, Inc. 206 Jones Blvd. Pottstown, PA 19464
				DEPT.	DATE			
A	Release	10/10/00	DAS	DWN SRP	7/31/07	DESCRIPTION: UFA125A Cable Specification		
				CHK HLC	7/31/07			
				ENG SRP	8/10/07			
				QA JJW	8/14/07			
						SHEET 1 of 3	CABLE I# 82350	REV. A1

1. Scope. This document describes the detail specifications for Micro-Coax UFA125A microwave cable.
2. Specifications.
 - 2.1 Materials and Mechanical.
 - 2.1.1 Center Conductor. (Item 1) Solid silver plated copper per ASTM B-3 and ASTM B-298, diameter to be 0.0285 inch.
 - 2.1.2 Dielectric. (Item 2) Low density PTFE in accordance with MIL-C-17.
 - 2.1.3 Outer Conductor. (Item 3) Silver plated copper tape per ASTM B-298, helically wrapped with 40% minimum overlap between layers.
 - 2.1.4 Outer Shield. (Item 4) Silver plated copper wire per ASTM B-298 tightly braided over the inner shield with a minimum of 93 % coverage.
 - 2.1.5 Jacket. (Item 5) Fluorinated Ethylene Propylene (FEP) in accordance with Mil-C-17, Type IX, transparent light aqua in color, diameter to be 0.125 inch nominal.
 - 2.1.6 Bend Radius. The minimum static bend radius to be 0.20 inch.
 - 2.1.7 Weight. The weight to be 8 grams/ft.
 - 2.2 Electrical.
 - 2.2.1 Frequency Range. The frequency range of the cable to be DC to 50 GHz.
 - 2.2.2 Attenuation. The Attenuation of the cable to not exceed that specified below over the frequency range at 25 degrees C:

<u>Frequency (GHz)</u>	<u>Max. Insertion Loss (dB/ft)</u>
1.0	0.15
10.0	0.49
12.4	0.55
18.0	0.68
26.5	0.84
40.0	1.06
50.0	1.21
 - 2.2.3 RF Leakage. The R-F suppression capability to be 100 dB down at 1 GHz.
 - 2.2.4 Time Delay. The time delay to be 1.32 nsec/ft.
 - 2.2.5 Impedance. The cable characteristic impedance to be 50 +/- 1 ohm.

- 2.3 Environmental. After exposure to each test, the assembly shall show no visible damage, the insertion loss and VSWR shall remain within the specified limits, and the connector interface dimension must remain within the specified limits of MIL-C-39012.
- 2.3.1 Thermal Shock. MIL-STD-202, Method 107, 5 Cycles, -55 to 165 degrees C (cable and SMA connectors only).
- 2.3.2 Aging Stability. MIL-C-17, Paragraph 4.8.16, 165 degrees C for 168 hours (cable and SMA connectors only)
- 2.3.3 Vibration. MIL-STD-202, Method 204, Test Condition B
- 2.3.4 High Pressure. Pressure to be increased at a rate of not more than 10 bar/minute to 100 +/- 2 bar for 12 hours.
- 2.3.5 Low Pressure. MIL-STD-1344A, Method 1004
- 2.3.6 Humidity. MIL-STD-810, Method 507, Procedure 1
- 2.3.7 Salt Fog. MIL-STD-810, Method 509, Procedure 1
- 2.3.8 Sand and Dust. MIL-STD-810, Method 510, Procedure 1
- 2.3.9 Stress Crack Resistance. MIL-C-17, Paragraph 4.8.17
- 2.3.10 Cold Bend Test. MIL-C-17, Paragraph 4.8.19
- 3 Quality Assurance Provisions. Quality assurance provisions to be in accordance with MIL-C-17.
- 3.1 Qualification Inspection. As required on purchase order.
- 3.2 Acceptance Testing. Cable shall be tested or examined for the following:
- A) Visual and mechanical
 - B) Insertion loss and VSWR