

UTiPHASE PRODUCT SPECIFICATION

Part Description UFP205A	Item Number	Rev.
	118719	B1

Construction Layers and Standards

1	Center Conductor	Silver plated copper per ASTM B-298
2	Dielectric	CIT Fluoropolymer
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
Cable Marking		CarlisleIT UTIFLEX UFP205A Lot Number -Sublot

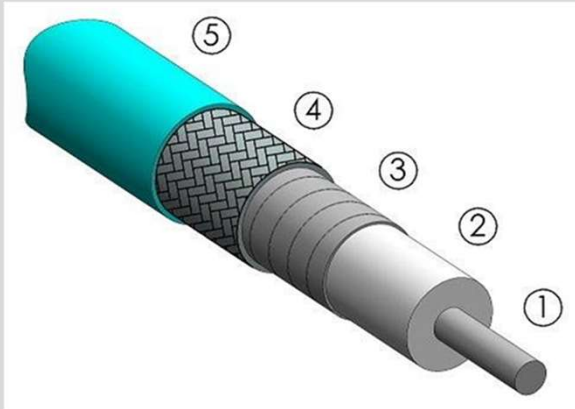
Mechanical / Physical Properties

Temperature Range (°C)	-65 / 125
Center Conductor Diameter [inch(mm)]	0.0571 (1.45)
Dielectric Diameter [inch(mm)]	0.155 (3.94)
Outer Conductor Diameter [inch(mm)]	0.1630 (4.14)
Outer Shield Diameter [inch(mm)]	0.179 (4.55)
Jacket Diameter [inch(mm)]	0.205 (5.21) ± 0.005 (0.13)
Jacket Wall Thickness [inch(mm)]	≥ 0.008 (0.203)
Weight [grams/ft (grams/m)]	≤ 20.6 (67.6)
Min Static Bend Radius [inch (mm)]	0.500 (12.70)
Center Conductor Strands	1

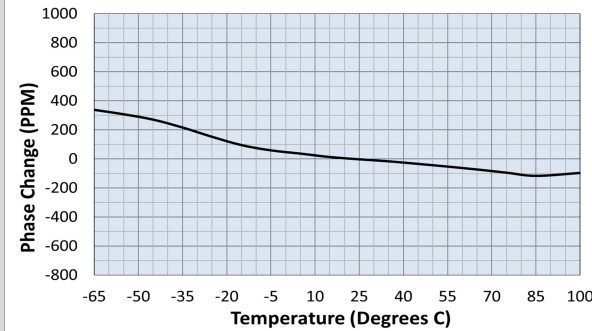
Environmental Properties

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, 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



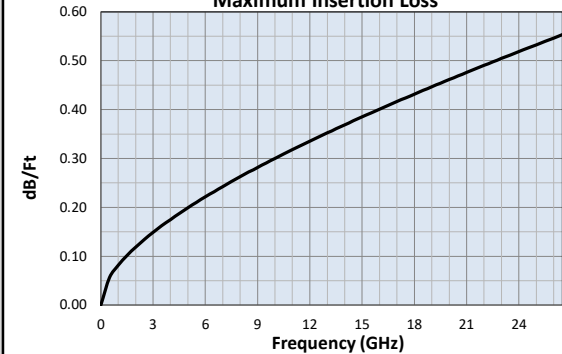
Electrical Properties

Impedance (Ohms)	50
Velocity of Propagation (%)	83.5
RF Shielding ((dB) at 1 GHz)	≥ 100
Capacitance [pF/Ft (pF/m)]	24.39 (80.03)
Maximum Frequency (GHz)	26.5
Corona Extinction Voltage (VRMS @ 60Hz)	2000
Dielectric Withstanding Voltage (VRMS @ 60Hz)	5000
Insertion Loss Stability (% Change) ²	≤ 5
K1 for Ft(m) : K2 for Ft(m)	7.50 (0.246) : 0.63 (0.021)

Maximum Attenuation¹ and VSWR⁴ at 20°C and Sea Level

Frequency (GHz)	Attenuation		VSWR
	[(dB/100ft)	(db./m)]	
0.5	6	(0.20)	≤ 1.20:1
1	9	(0.30)	≤ 1.20:1
5	20	(0.66)	≤ 1.20:1
10	31	(1.02)	≤ 1.20:1
18	44	(1.44)	≤ 1.20:1
26.5	56	(1.84)	≤ 1.25:1

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

Rev.	ECO #	DATE	INIT.	APPROVALS		
B1	2051161	10/13/2020	DMD	DWN	DMD	7/24/2020
Specifications subject to change. Please contact Carlisle Interconnect Technologies for the latest document revision. Copyright Carlisle Interconnect Technologies				ENG	DMD	10/13/2020
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UFP205A CABLE SPECIFICATION