

MegaPhase UltraPhase™ Series Cable

UltraPhase Series Cable Assembly

The MegaPhase UltraPhase Series E product line offers a foam FEP dielectric and is a great choice for phase stability versus flexure and stability over temperature. The temperature performance features linearity across a wide temperature range, and does not exhibit the “knee” that traditional PTFE cables exhibit at ambient temperature. UltraPhase is ideal for applications including both air- and ground-based phased array radars, sensors, mobile backhaul, and temperature testing. The Series GE is available with Type N, SMA, 3.5mm, 2.9mm, and 2.4mm connectors.



Electrical Data

Maximum Frequency:

GE05 110 GHz

GE08 67 GHz

GE12 40 GHz

Impedance: 50 Ω nominal

Propagation Velocity:

GE05, 78.7 % nominal

GE08, GE12 80 % nominal

Time Delay:

GE05 1.291 ns/ft. (4.236 ns/m)

GE08 1.27 ns/ft. (4.167 ns/m)

GE12 1.265 ns/ft. (4.15 ns/m)

Shielding Effectiveness:

-100 dB minimum (cable only)

Dielectric Withstanding Voltage:

GE05 400 VRMS

GE08 1200 VRMS

GE12 1100 VRMS

Capacitance:

GE05 25.82 pF/ft. (84.71 pF/m)

GE08 25.4 pF/ft. (83.3 pF/m)

GE12 25.3 pF/ft. (83.0 pF/m)

Mechanical Data

Finished Outer Diameter:

GE05 0.056 in. (1.422 mm)

GE08 0.100 in. (2.54 mm)

GE12 0.150 in. (3.81 mm)

Static Bend Radius:

GE05 .25 in. (6.35 mm)

GE08 .35 in. (8.9 mm)

GE12 .50 in. (12.7 mm)

Weight:

GE05 1.87 grams/ft. (6.14 grams/m)

GE08 5.0 grams/ft. (16.4 grams/m)

GE12 11.20 grams/ft. (36.75 grams/m)

Operating Temp. Range: -85 to 329° F
-65 to 165° C

Cable Construction

Inner Conductor: Solid Ag-plated Cu

Dielectric Foamed FEP

Inner Shield: Ag-plated Cu

Outer Braid Shield: Ag-plated Cu

Outer Jacket: FEP

Maximum Length:

35 Feet

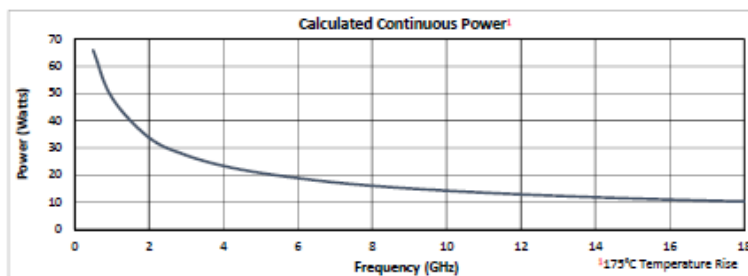
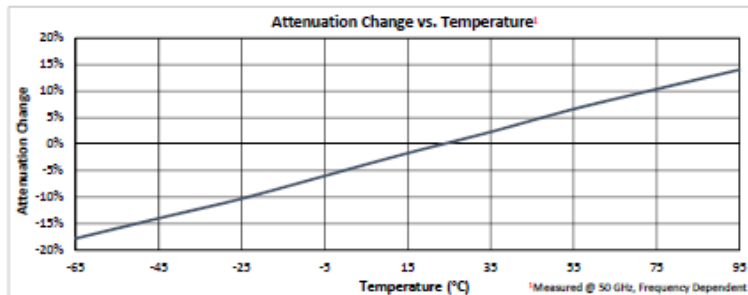
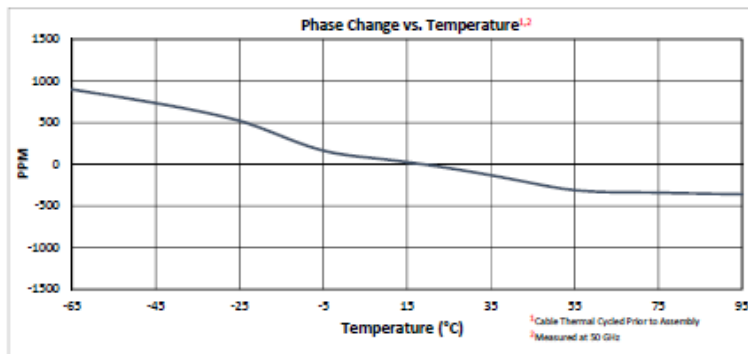
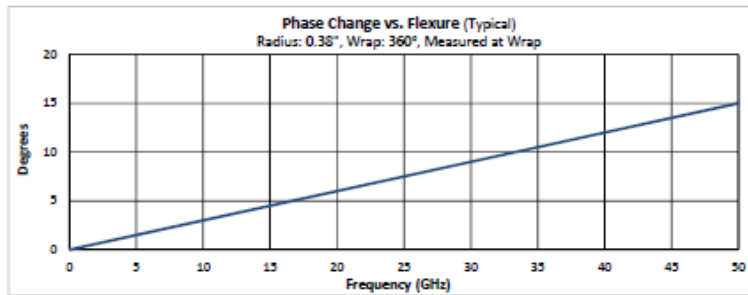
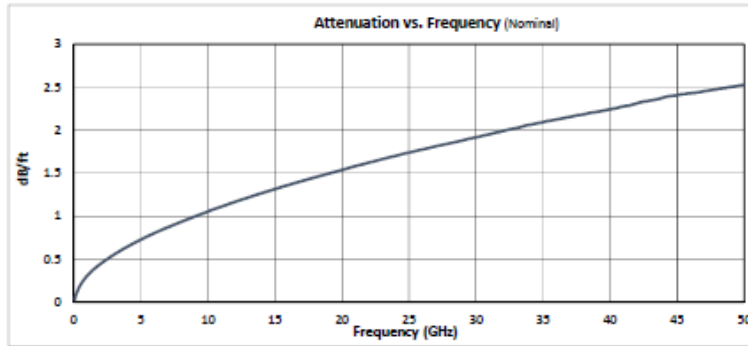
Available Connectors

Type N, SMA, 3.5mm, 2.9mm, 2.4mm

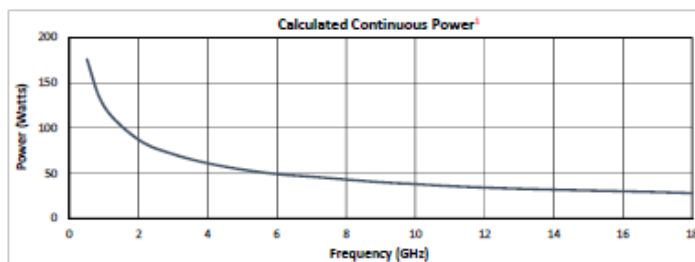
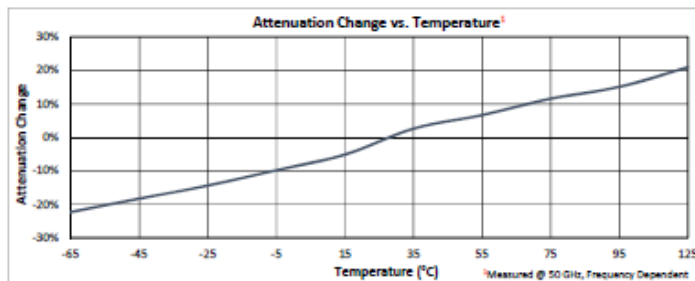
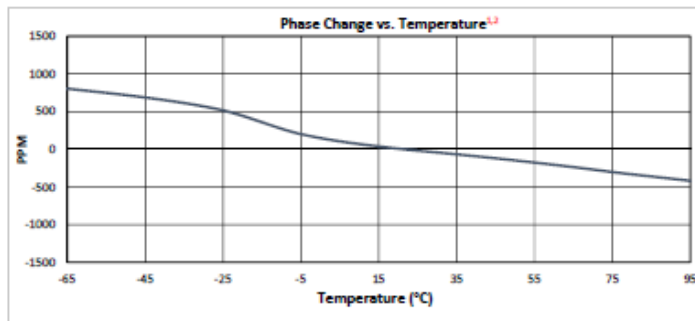
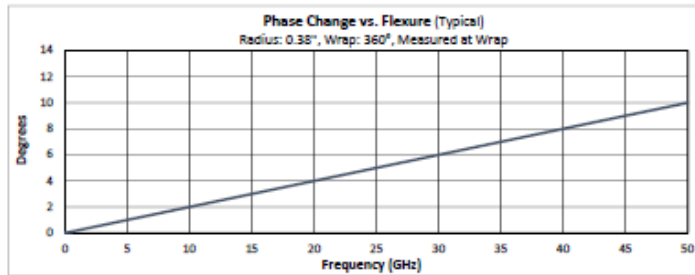
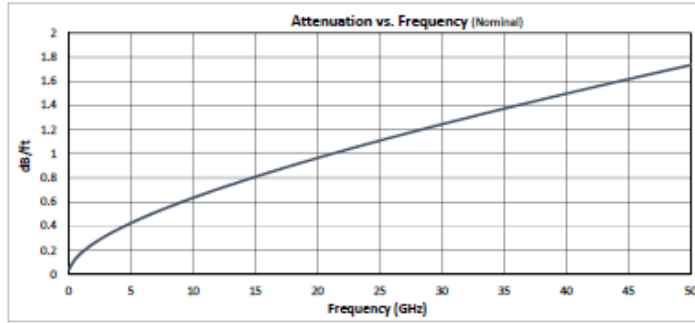
MegaPhase Ultra Phase Series Cable (Cont'd)

Frequency		GE05 Series		GE08 Series		GE12 Series		Conn Loss dB	VSWR
		Attenuation		Attenuation		Attenuation			
Band	GHz	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m		
UHF	0.3	0.182	0.596	0.106	0.346	0.064	0.211	0.006	1.10
	0.5	0.235	0.772	0.137	0.450	0.084	0.274	0.009	
	0.8	0.299	0.980	0.175	0.574	0.107	0.351	0.012	
L	1.0	0.335	1.098	0.197	0.645	0.120	0.394	0.014	
S	2.0	0.477	1.566	0.283	0.930	0.174	0.570	0.024	1.15
	2.4	0.524	1.720	0.312	1.024	0.192	0.628	0.027	
	3.0	0.588	1.930	0.352	1.155	0.216	0.709	0.032	
C	4.0	0.683	2.241	0.411	1.349	0.253	0.830	0.040	
	6.0	0.844	2.769	0.513	1.684	0.317	1.039	0.055	
X	8.0	0.982	3.220	0.602	1.976	0.373	1.223	0.070	1.20
	10.0	1.105	3.624	0.683	2.240	0.423	1.389	0.084	1.25
	12.4	1.238	4.063	0.772	2.532	0.479	1.573	0.101	1.30
Ku	15.0	1.371	4.499	0.861	2.825	0.536	1.758	0.118	
	18.0	1.513	4.962	0.957	3.140	0.597	1.958	0.139	
K	20.0	1.601	5.253	1.018	3.340	0.636	2.086	0.152	1.35
	22.0	1.686	5.532	1.077	3.533	0.673	2.209	0.165	
	24.0	1.768	5.801	1.134	3.720	0.710	2.328	0.178	
	26.5	1.866	6.123	1.203	3.946	0.754	2.473	0.194	
Ka	28.0	1.924	6.311	1.243	4.079	0.780	2.558	0.204	1.40
	30.0	1.998	6.555	1.296	4.252	0.813	2.669	0.217	
	32.0	2.070	6.792	1.347	4.421	0.847	2.777	0.230	
	34.0	2.141	7.023	1.398	4.587	0.879	2.884	0.243	1.45
	36.0	2.210	7.249	1.448	4.749	0.911	2.989	0.256	
V	40.0	2.343	7.686	1.544	5.066	0.973	3.193	0.281	1.50
	45.0	2.502	8.209	1.661	5.449			0.313	
	50.0	2.655	8.709	1.774	5.819			0.344	1.55
	60.0	2.943	9.655	1.989	6.527			0.406	
	67.0	3.134	10.282	2.134	7.003			0.450	
	75.0	3.343	10.969					0.499	
W	80.0	3.470	11.384					0.530	1.60
	90.0	3.715	12.188					0.591	
	100.0	3.950	12.960					0.652	
	110.0	4.177	13.705					0.713	

GE05 UltraPhase Graphs



GE08 UltraPhase Graphs



GE12 UltraPhase Graphs

