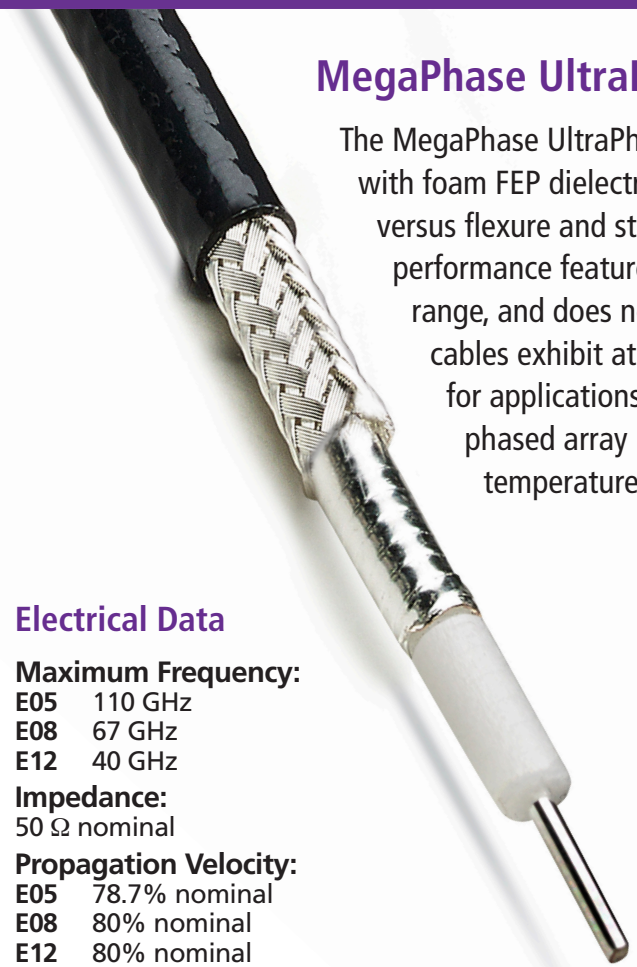
MegaPhase

With the right connections, anything is possible.



MegaPhase UltraPhase™ Cable

The MegaPhase UltraPhase Series E product line is constructed with 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.

Electrical Data

Maximum Frequency:
E05 110 GHz
E08 67 GHz
E12 40 GHz

Impedance:
50 Ω nominal

Propagation Velocity:
E05 78.7% nominal
E08 80% nominal
E12 80% nominal

Time Delay:
E05 1.291 ns/ft. (4.236 ns/m)
E08 1.27 ns/ft. (4.167 ns/m)
E12 1.265 ns/ft. (4.15 ns/m)

Shielding Effectiveness:
-100 dB minimum (cable only)

Dielectric Withstanding Voltage:
E05 400 VRMS
E08 1200 VRMS
E12 1100 VRMS

Capacitance:
E05 25.82 pF/ft. (84.71 pF/m)
E08 25.4 pF/ft. (83.3 pF/m)
E12 25.3 pF/ft. (83.0 pF/m)

Mechanical Data

Finished Outer Diameter:
E05 0.056 in. (1.422 mm)
E08 0.100 in. (2.54 mm)
E12 0.150 in. (3.81 mm)

Static Bend Radius:
E05 .25 in. (6.35 mm)
E08 .35 in. (8.9 mm)
E12 .50 in. (12.7 mm)

Weight:
E05 1.87 grams/ft. (6.14 grams/m)
E08 5.0 grams/ft. (16.4 grams/m
E12 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, 2.92mm, 2.4mm 1.85mm, 1.0mm

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MegaPhase UltraPhase™ Cable (continued)

Frequency		GE05 Series Attenuation		GE08 Series Attenuation		GE12 Series Attenuation		Conn Loss dB	VSWR
Band	GHz	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m		
UHF	0.3	0.167	0.548	0.104	0.341	0.070	0.229	0.006	1.10
	0.5	0.217	0.711	0.135	0.443	0.090	0.297	0.009	
	0.8	0.276	0.904	0.172	0.566	0.115	0.378	0.012	
L	1.0	0.309	1.014	0.194	0.635	0.129	0.424	0.014	
S	2.0	0.442	1.451	0.279	0.915	0.185	0.608	0.024	1.15
	2.4	0.486	1.596	0.307	1.009	0.204	0.668	0.027	
	3.0	0.547	1.793	0.347	1.137	0.229	0.752	0.032	
C	4.0	0.636	2.087	0.405	1.328	0.267	0.875	0.040	
	6.0	0.789	2.588	0.505	1.658	0.331	1.087	0.055	
X	8.0	0.921	3.020	0.593	1.945	0.387	1.270	0.070	1.20
	10.0	1.039	3.408	0.672	2.205	0.437	1.435	0.084	1.25
	12.4	1.168	3.832	0.759	2.491	0.492	1.615	0.101	1.30
Ku	15.0	1.297	4.255	0.847	2.779	0.547	1.795	0.118	
	18.0	1.435	4.707	0.941	3.089	0.606	1.988	0.139	1.35
K	20.0	1.522	4.992	1.001	3.285	0.643	2.110	0.152	
	22.0	1.605	5.266	1.059	3.475	0.679	2.227	0.165	
	24.0	1.686	5.530	1.115	3.659	0.713	2.340	0.178	
	26.5	1.783	5.849	1.183	3.881	0.755	2.476	0.194	1.40
Ka	28.0	1.839	6.035	1.223	4.011	0.779	2.556	0.204	
	30.0	1.913	6.277	1.274	4.181	0.811	2.660	0.217	
	32.0	1.985	6.513	1.325	4.347	0.842	2.761	0.230	
	34.0	2.055	6.743	1.375	4.510	0.872	2.860	0.243	1.45
	36.0	2.124	6.969	1.423	4.669	0.901	2.957	0.256	
V	40.0	2.257	7.406	1.518	4.980	0.959	3.145	0.281	1.50
	45.0	2.417	7.931	1.633	5.356			0.313	
	50.0	2.571	8.436	1.743	5.719			0.344	1.55
	60.0	2.864	9.396	1.955	6.414			0.406	
	67.0	3.059	10.035	2.097	6.881			0.450	1.60
	70.0	3.140	10.302					0.468	
W	80.0	3.403	11.166					0.530	
	90.0	3.656	11.995					0.591	
	100.0	3.900	12.795					0.652	
	110.0	4.136	13.571					0.713	

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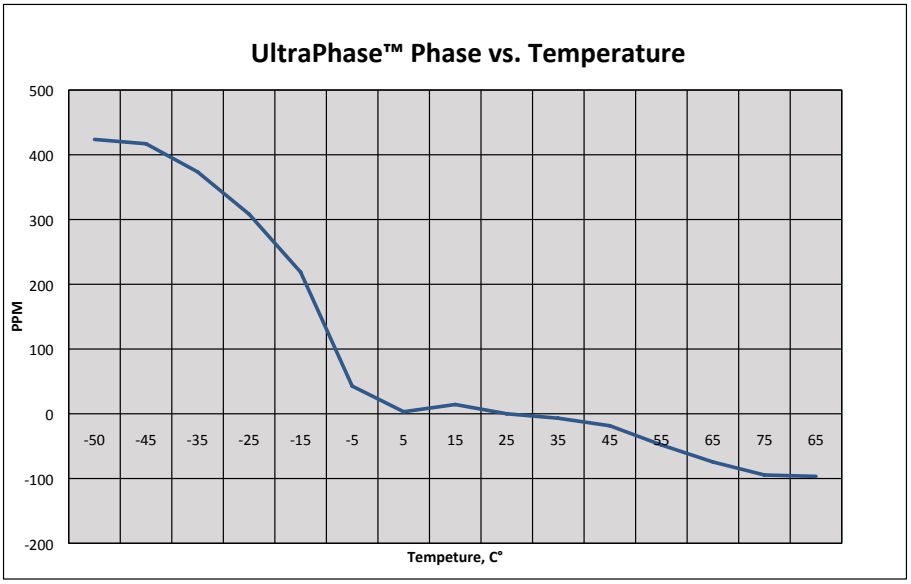
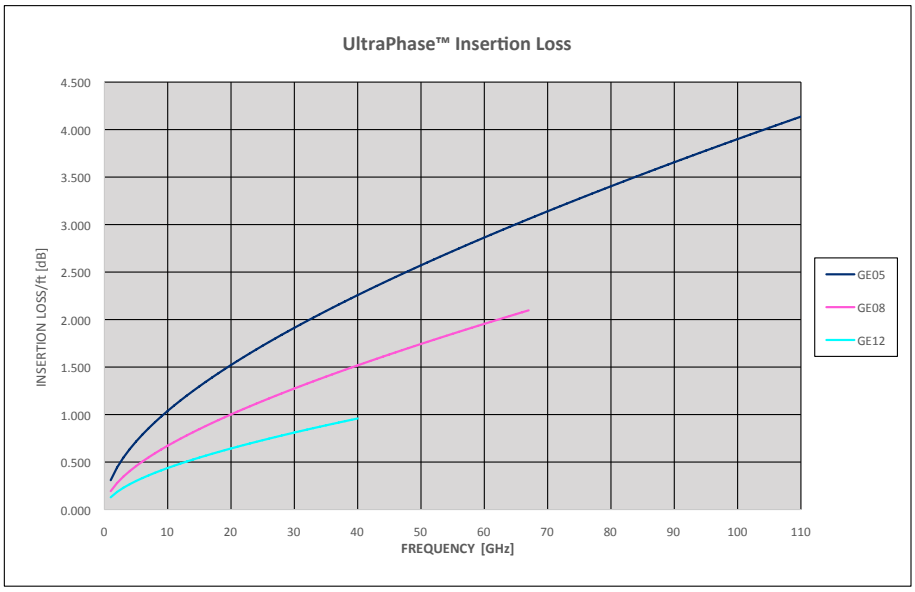
MegaPhase UltraPhase™ Cable (continued)

Phase vs. Temperature



Insertion Loss



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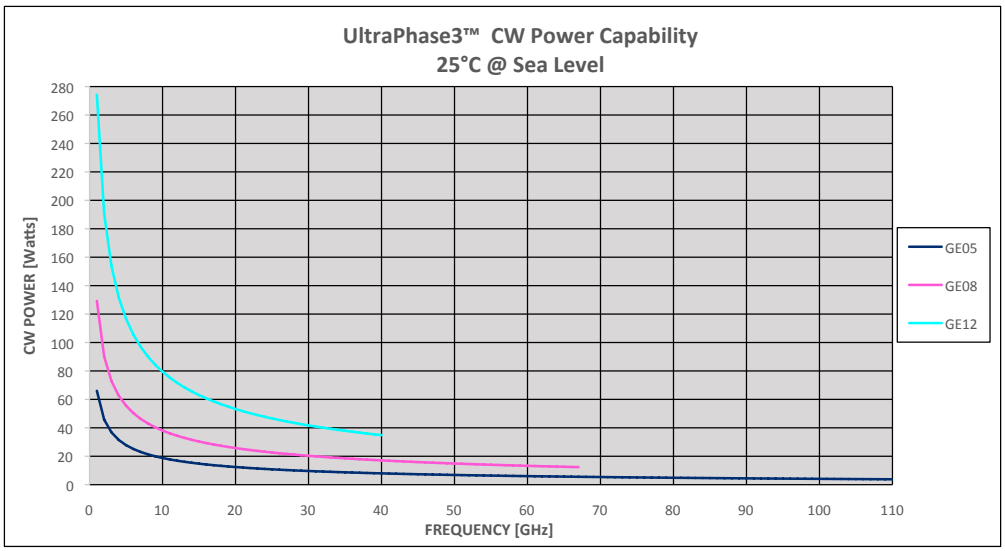
MegaPhase UltraPhase™ Cable (continued)

Cable CW Power Handling



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