



With the right connections,
anything is possible.

ChipSet Measurement Test Cables to 40 GHz

Test Cables for Lightweight DUTs and Fixture Board Testing

- Triple Shielded
- Low Loss
- Ideal for light weight DUTs
- Light Weight
- Small Diameter
- Precision Connectors

MegaPhase's ChipSet Measurement cable provides a smaller diameter solution for test environments including high density fixture boards and other board-launched connections.

This low density dielectric cable offers several benefits including flexibility, low insertion loss, and low capacitance for low loss transfer of power.

Electrical Data

Maximum Frequency:
40 GHz

Impedance:
50 Ω nominal

Propagation Velocity:
75.5% nominal

Time Delay:
1.35 ns/ft (4.43 ns/m)

Shielding Effectiveness:
-90 dB minimum (cable only)

Dielectric Withstanding Voltage:
5 kV at 60 Hz

Capacitance:
26.7 pF/ft (87.6 pF/m)

Mechanical Data

Finished Outer Diameter:
0.126 in (0.32 cm)

Static Bend Radius:
0.6 in (1.524 cm)

Weight:
0.02 lbs/ft (0.024 kg/m)

Operating Temp. Range:
-67 to 392° F (-55 to 200° C)

Cable Construction

Inner Conductor: Solid Ag-plated Cu
Dielectric: Boundless PTFE
Outer Conductor: Ag-plated Flat Cu Braid/
Polyamide Foil/
Ag-plated Round Braid

Standard Finish: FEP
(a wide variety of other protective finishes
and armors available)

Available Connectors

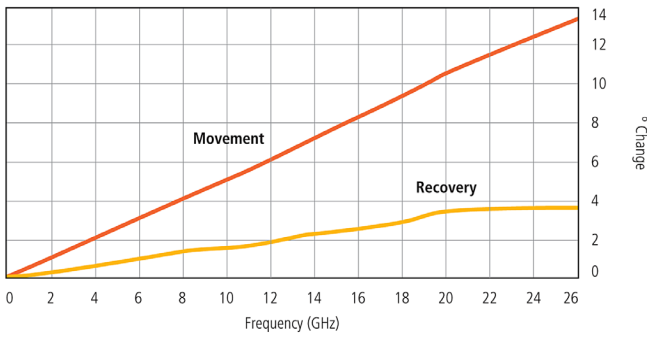
2.4mm, 2.92mm, 3.5mm, SMA, TNC, Type N
(maximum frequency dependent on cable;
other connectors available)



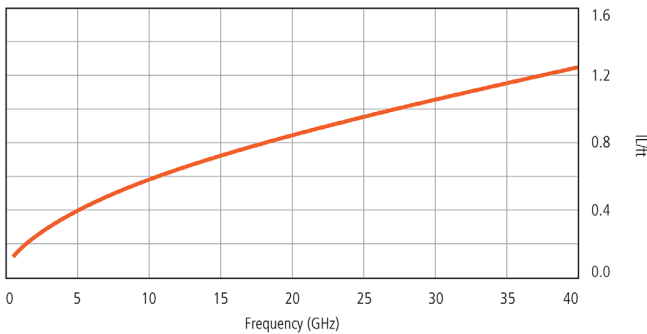
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Phase Change vs. Flexure



Insertion Loss



Specifications

Frequency		Part No.	Attenuation		Conn. Loss dB	VSWR
GHz	Band		dB/ft	dB/m		
0.3	UHF	CM4	0.092	0.302	0.006	1.10
0.5			0.119	0.391	0.009	
0.8			0.152	0.497	0.012	
1.0	L		0.170	0.558	0.014	1.15
2.0	S		0.243	0.798	0.024	
2.4			0.267	0.877	0.027	
3.0			0.300	0.985	0.032	
4.0	C		0.349	1.146	0.040	1.20
6.0	CM8		0.433	1.420	0.055	
8.0			0.505	1.656	0.070	1.25
10.0	X	CM18	0.569	1.867	0.084	1.30
12.4	Ku		0.639	2.098	0.101	
15.0			0.710	2.328	0.118	
18.0	K	CM26	0.785	2.574	0.139	1.35
20.0			0.832	2.729	0.152	
22.0			0.877	2.877	0.165	
24.0			0.921	3.021	0.178	
26.5	Ka	CM34	0.973	3.193	0.194	1.40
28.0			1.004	3.294	0.204	
30.0			1.004	3.425	0.217	
32.0		CM40	1.083	3.553	0.230	1.45
34.0			1.121	3.677	0.243	
36.0	1.158	3.799	0.256	1.45		
40.0	1.230	4.036	0.281			

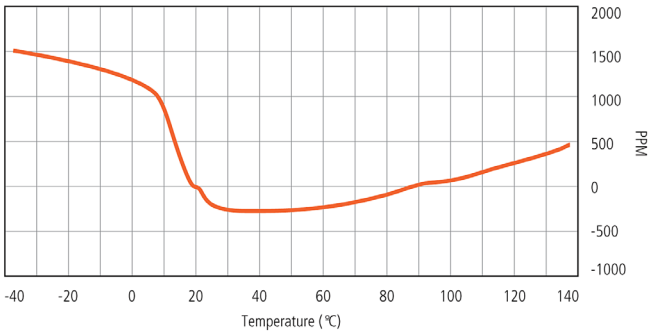
Note: Typical Insertion Loss dB = (Attenuation)(Length) + 2(Conn. Loss)
 Attenuation at any frequency = (0.1654 x √freq GHz) + (0.0046 x freq GHz)



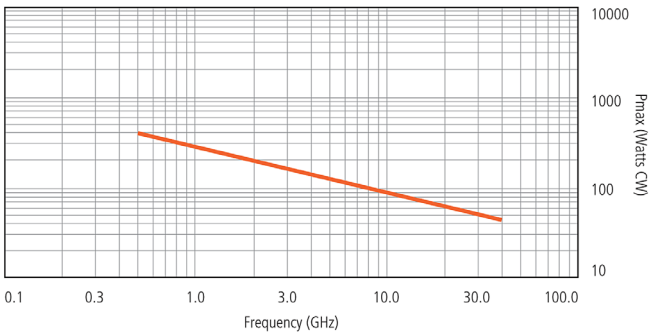
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Phase Change vs. Temperature



Cable CW Power Handling



Note: Data at ambient temperature and sea level. Power handling of a cable assembly is also connector dependent and includes variables such as altitude, temperature and system VSWR. See website for connector power handling standards, including altitude, temperature and VSWR derating.