

MegaPhase®



With the right connections,
anything is possible.

MegaPhase Killer Bee® Series Test Cables to 50 GHz Phase & Amplitude Stable Performance through Ka-Band

- Phase Stable
- Low VSWR
- Low Loss
- Armored
- Wide Variety of Connectors
- Ultra-Flexible



Electrical Data

Maximum Frequency:
50 GHz

Impedance:
50 Ω nominal

Propagation Velocity:
KB32 86.5% nominal
KB50 80% nominal

Time Delay:
KB32 1.17 ns/ft (3.84 ns/m)
KB50 1.27ns/ft. (4.167 ns/m)

Shielding Effectiveness:
-100 dB minimum (cable only)

Dielectric Withstanding Voltage:
KB32 10 kV at 60 Hz
KB50 1.2 kV at 60 Hz

Capacitance:
KB32 24.5 pF/ft (80.4 pF/m)
KB50 25.4 pF/ft. (83.3 pF/m)

Mechanical Data

Finished Outer Diameter:
0.315 in, nominal

Static Bend Radius:
1.5 in (3.81 cm)

Weight with Standard Jacket/Armor:
0.04 lbs/ft (0.060 kg/m)

Max. Assembly Length:
25 ft (8 m)

Crush Resistance:
250 lbs/linear in (44.6 kg/linear cm)

Operating Temp. Range:
-67 to 275° F (-55 to 135° C)

The MegaPhase Killer Bee® features low loss and outstanding phase and amplitude stability over flexure and temperature. Featuring our proprietary Boundless™ low loss dielectric, this rugged and light-weight test cable provides a long service life with repeatable performance through the life of the cable. A wide variety of connectors and phase matching are available. Fewer calibrations mean less downtime, resulting in the MegaPhase promise of *Lowest Cost Per Measurement™*.



Cable Construction

Inner Conductor:	Solid Ag-plated Cu
Dielectric:	KB32 <i>Boundless</i> PTFE® KB50 Foamed FEP
Outer Conductor:	GrooveTube® Cu
Standard Finish:	NOMEX® Braid over Polyolefin

Available Connectors

KB32 SMA, Type N, TNC and 7-16
KB40 3.5mm, 2.92mm
KB50 2.4mm

122 Banner Road, Stroudsburg, PA 18360-6433
Tel: 570-424-8400

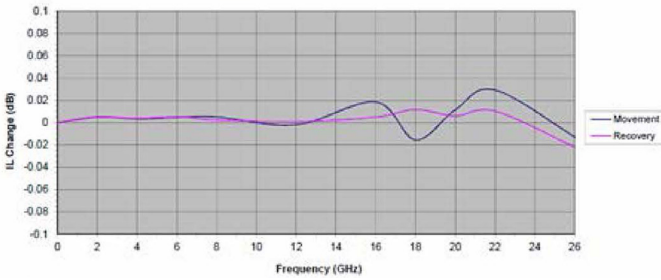
Solutions@MegaPhase.com | www.MegaPhase.com



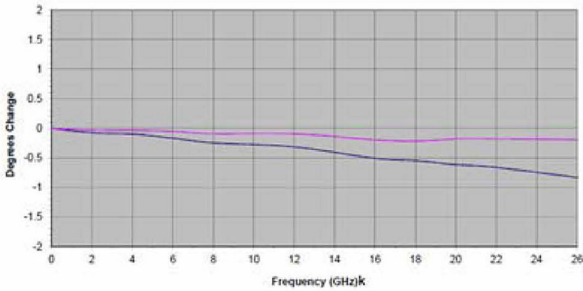
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MegaPhase Killer Bee® Series Test Cables to 32 GHz

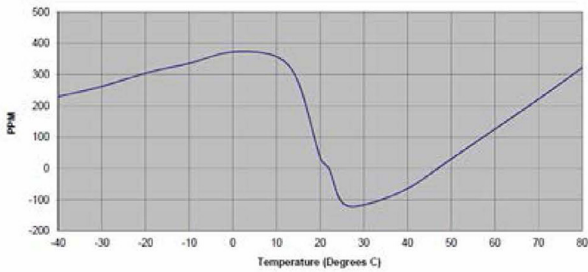
Amplitude Change vs. Flexure



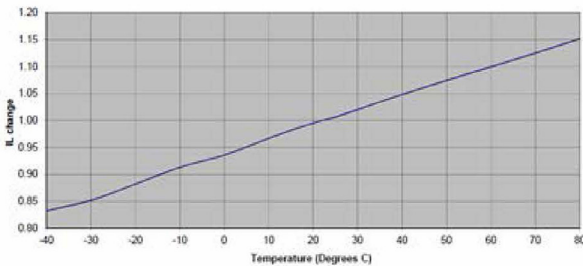
Phase Change vs. Flexure



Phase Change vs. Temperature

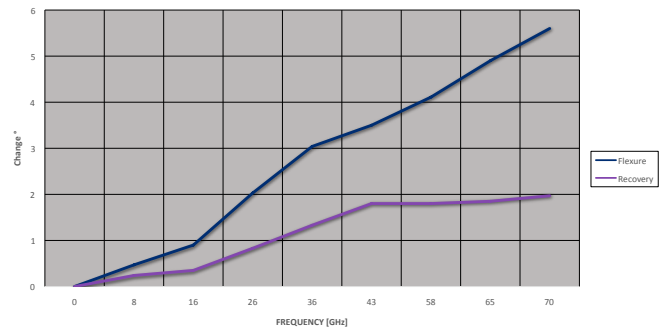


Insertion Loss v. Temperature

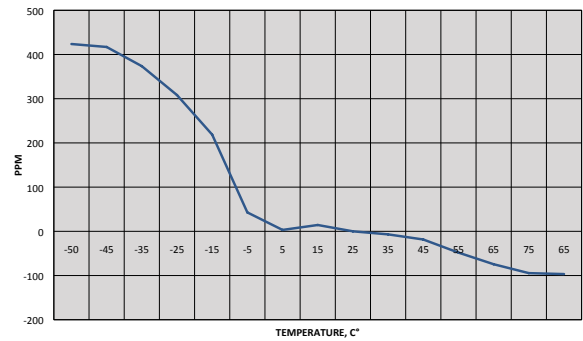


MegaPhase Killer Bee® Series Test Cables to 50 GHz

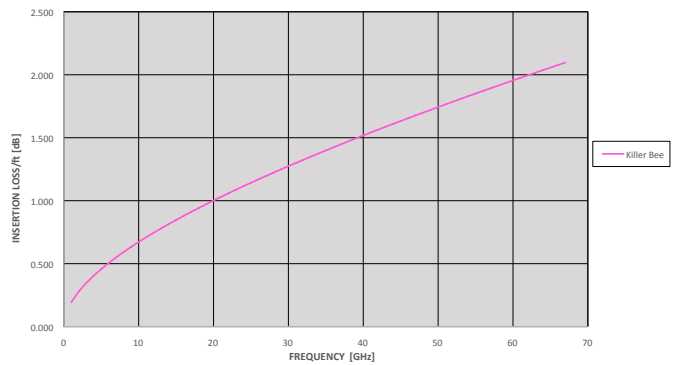
Phase vs. Flexure



Phase vs. Temperature



Insertion Loss





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Frequency		KB32		KB50		Conn Loss dB	VSWR
		Attenuation		Attenuation			
Band	GHz	dB/ft	dB/m	dB/ft	dB/m		
UHF	0.3	0.053	0.173	0.104	0.341	0.006	1.10
	0.5	0.068	0.225	0.135	0.443	0.009	
	0.8	0.087	0.287	0.172	0.566	0.012	
L	1.0	0.098	0.322	0.194	0.635	0.014	
S	2.0	0.141	0.463	0.279	0.915	0.024	1.15
	2.4	0.155	0.510	0.307	1.009	0.027	
	3.0	0.175	0.575	0.347	1.137	0.032	
C	4.0	0.204	0.671	0.405	1.328	0.040	
	6.0	0.255	0.836	0.505	1.658	0.055	
X	8.0	0.299	0.980	0.593	1.945	0.070	1.20
	10.0	0.338	1.110	0.672	2.205	0.084	1.25
	12.4	0.382	1.253	0.759	2.491	0.101	1.30
Ku	15.0	0.426	1.397	0.847	2.779	0.118	
	18.0	0.473	1.552	0.941	3.089	0.139	
K	20.0	0.503	1.649	1.001	3.285	0.152	1.35
	22.0	0.532	1.744	1.059	3.475	0.165	
	24.0	0.559	1.835	1.115	3.659	0.178	
	26.5	0.593	1.946	1.183	3.881	0.194	
Ka	28.0	0.613	2.010	1.223	4.011	0.204	1.40
	30.0	0.638	2.095	1.274	4.181	0.217	
	32.0	0.664	2.177	1.325	4.347	0.230	
	34.0			1.375	4.510	0.243	1.45
	36.0			1.423	4.669	0.256	
V	40.0			1.423	4.980	0.281	1.50
	45.0			1.633	5.356	0.313	
	50.0			1.743	5.719	0.344	1.55

KB32 includes KB4, KB8, KB18 and KB26
KB50 includes KB40