

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:
80% nominal

Time Delay:
1.27ns/ft. (4.167 ns/m)

Shielding Effectiveness:
-100 dB minimum (cable only)

Dielectric Withstanding Voltage:
1.2 kV at 60 Hz

Capacitance:
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: | Foamed FEP |
| Outer Conductor: | GrooveTube® Cu |
| Standard Finish: | NOMEX® Braid over Polyolefin |

Available Connectors

2.4mm, 2.92mm, 3.5mm

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

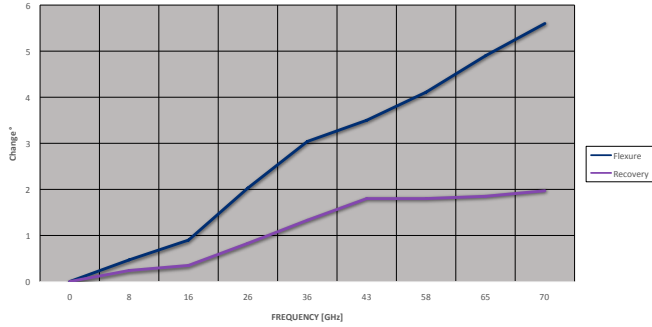
Solutions@MegaPhase.com | www.MegaPhase.com



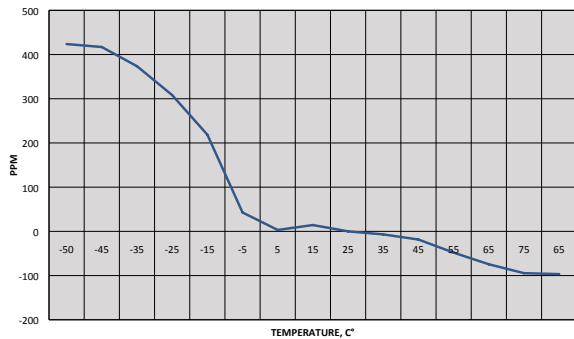
With the right connections,
anything is possible.

MegaPhase Killer Bee® Series Test Cables to 50 GHz (continued)

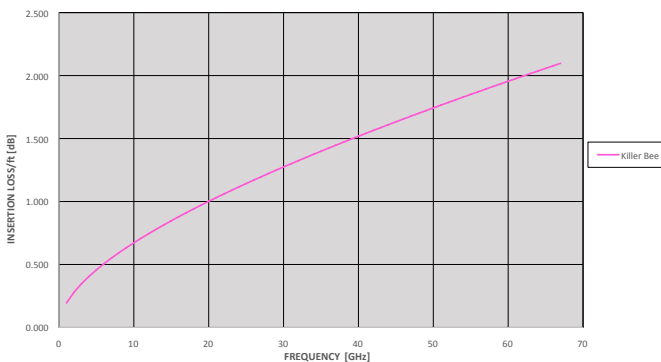
Phase vs. Flexure



Phase vs. Temperature



Insertion Loss



Specifications

| Frequency | | KB50 Attenuation | | Conn. Loss dB | VSWR |
|-----------|------|------------------|-------|---------------|------|
| Band | GHz | dB/ft | dB/m | | |
| UHF | 0.3 | 0.104 | 0.341 | 0.006 | 1.10 |
| | 0.5 | 0.135 | 0.443 | 0.009 | |
| | 0.8 | 0.172 | 0.566 | 0.012 | |
| L | 1.0 | 0.194 | 0.635 | 0.014 | |
| S | 2.0 | 0.279 | 0.915 | 0.024 | 1.15 |
| | 2.4 | 0.307 | 1.009 | 0.027 | |
| | 3.0 | 0.347 | 1.137 | 0.032 | |
| C | 4.0 | 0.405 | 1.328 | 0.040 | 1.20 |
| | 6.0 | 0.505 | 1.658 | 0.055 | |
| X | 8.0 | 0.593 | 1.945 | 0.070 | 1.20 |
| | 10.0 | 0.672 | 2.205 | 0.084 | 1.25 |
| | 12.4 | 0.759 | 2.491 | 0.101 | 1.30 |
| Ku | 15.0 | 0.847 | 2.779 | 0.118 | 1.30 |
| | 18.0 | 0.941 | 3.089 | 0.139 | |
| K | 20.0 | 1.001 | 3.285 | 0.152 | 1.35 |
| | 22.0 | 1.059 | 3.475 | 0.165 | |
| | 24.0 | 1.115 | 3.659 | 0.178 | |
| | 26.5 | 1.183 | 3.881 | 0.194 | |
| Ka | 28.0 | 1.223 | 4.011 | 0.204 | 1.40 |
| | 30.0 | 1.275 | 4.181 | 0.217 | |
| | 32.0 | 1.325 | 4.347 | 0.230 | |
| | 34.0 | 1.375 | 4.510 | 0.243 | |
| | 36.0 | 1.423 | 4.669 | 0.256 | |
| V | 40.0 | 1.518 | 4.980 | 0.281 | 1.45 |
| | 45.0 | 1.633 | 5.356 | 0.313 | |
| | 50.0 | 1.743 | 5.719 | 0.344 | |