MegaPhase

With the right connections, anything is possible.

JumpShot™ Cables to 18 GHz

Low Cost Jumper Cables for Systems Integration

- Replacement for RG402 and RG405
- Cost Effective
- Ultra-Flexible
- Double Shielded Outer Conductor
- Blue FEP Jacket
- .086in (1.2mm) and .141in (2.18mm) Diameters

The MegaPhase JumpShot™ is an easily installable cable designed for fixed installations such as ATE, switch matrix, and board fixtures where multiple flexures and mating cycles are not anticipated. This flexible alternative to semi-rigid RG402 and RG405 feature a small diameter and great flexibility through 18 GHz. A wide variety of connectors are available.

Electrical Data

Maximum Frequency:
18.0 GHz

Impedance:
50 Ω nominal

Propagation Velocity:
70% nominal

Time Delay:
1.47 ns/ft (4.82 ns/m)

Shielding Effectiveness:
-90 dB minimum (cable only)

Dielectric Withstanding Voltage:
B08: 1.0 kV at 60 Hz
B14: 3.0 kV at 60 Hz

Capacitance:
29 pF/ft (95.1 pF/m)

Mechanical Data

Finished Outer Diameter:
B08: 0.104 in (0.264 cm)
B14: 0.163 in (0.414 cm)

Static Bend Radius:
B08: 0.5 in (1.270 cm)
B14: 0.8 in (2.032 cm)

Weight with Standard Jacket/Armor:
B08: 0.01 lbs/ft (0.021 kg/m)
B14: 0.03 lbs/ft (0.048 kg/m)

Operating Temp. Range:
-85 to 392° F (-65 to 200° C)
Above 185° F (85° C) use "T" designation

Cable Construction

Inner Conductor:	Solid Ag-plated Cu-clad Steel
Dielectric:	PTFE
Outer Conductor:	Ag-plated Cu Flat Braid/ Ag-plated Cu Round Braid
Standard Finish:	FEP

(a wide variety of other protective finishes and armors available)

Available Connectors

B08: 3.5mm, BNC, MMCX, OSP, OSSP, SMA, SMB, SMC, SMP, SSMA, SSMB, SSMP, TNC, Type N, ZMA

B14: 3.5mm, BNC, SMA, TNC, Type N

(maximum frequency dependent on cable; other connectors available)

122 Banner Road, Stroudsburg, PA 18360-6433
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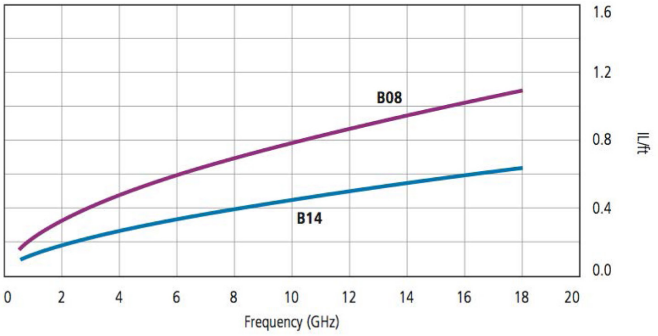
Specifications

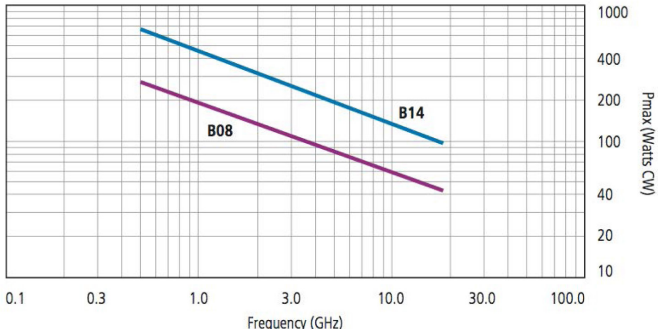
Frequency		B08 Series Attenuation		B14 Series Attenuation		Conn Loss dB	VSWR
GHz	Band	dB/ft	dB/m	dB/ft	dB/m		
0.3	UHF	0.124	0.406	0.070	0.228	0.006	1.10
0.5		0.161	0.527	0.091	0.297	0.009	
0.8		0.205	0.672	0.116	0.379	0.012	
1.0	L	0.230	0.755	0.130	0.427	0.014	
2.0	S	0.331	1.085	0.188	0.616	0.024	1.15
2.4		0.364	1.194	0.207	0.679	0.027	
3.0		0.410	1.345	0.233	0.765	0.032	
4.0	C	0.478	1.568	0.273	0.895	0.040	1.20
6.0		0.595	1.954	0.341	1.120	0.055	
8.0	X	0.697	2.288	0.401	1.315	0.070	1.25
10.0		0.789	2.589	0.455	1.493	0.084	
12.4		0.890	2.920	0.515	1.689	0.101	1.30
15.0	Ku	0.991	3.252	0.575	1.887	0.118	
18.0		1.100	3.609	0.640	2.100	0.139	1.35

Note: Typical Insertion Loss dB = (Attenuation)(Length) +2(Conn. Loss)
Attenuation at any frequency =
B08: (0.22097 x √freq GHz) + (0.00903 x freq GHz)
B14: (0.12357 x √freq GHz) + (0.00643 x freq GHz)

Insertion Loss



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.

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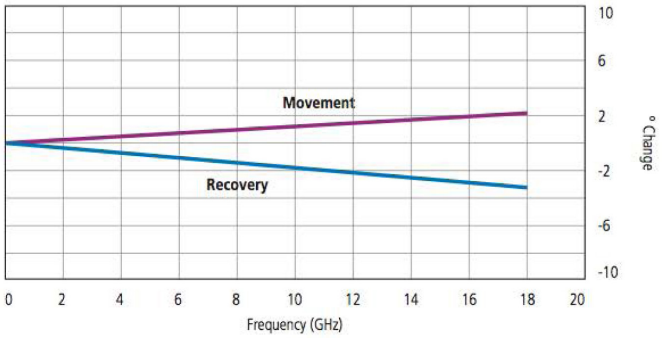
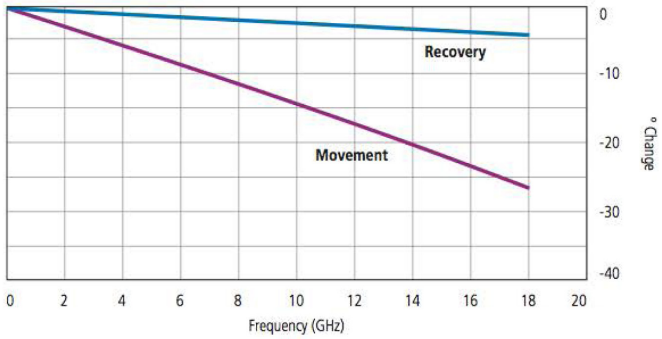
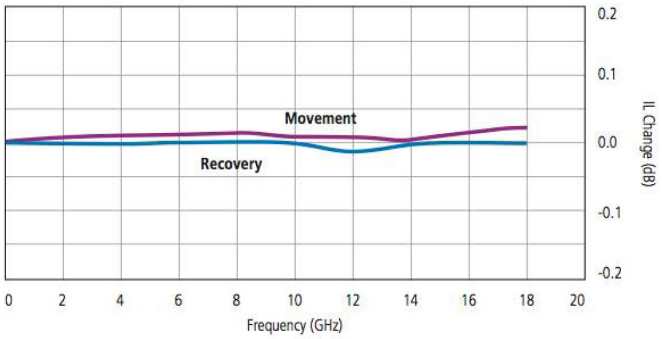
B08 Phase Change vs. Flexure



B14 Phase Change vs. Flexure



B08 Insertion Loss vs. Temperature



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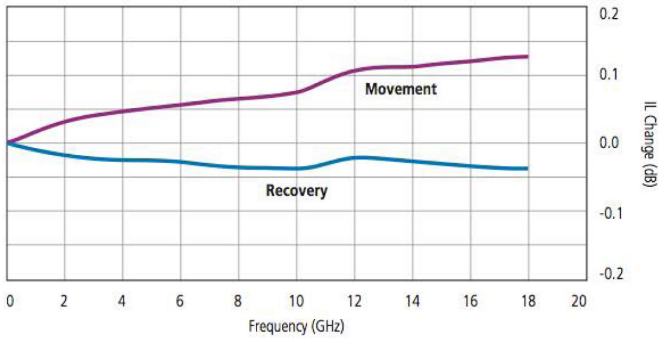

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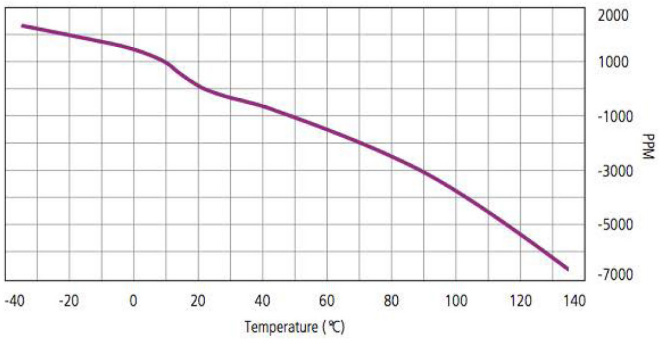
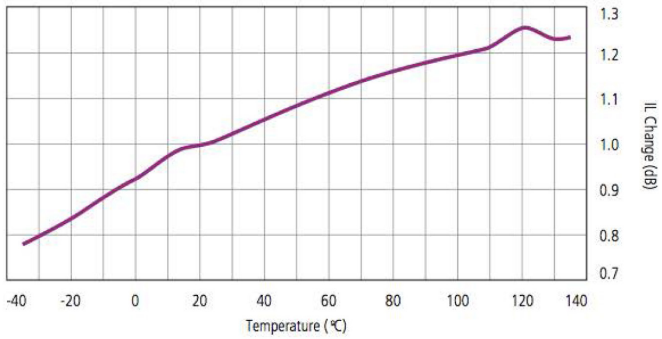


Insertion Loss vs. Temperature



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