

# JumpShot™

## Flexible Jumper Cables

The popular JumpShot series cable is a attractive alternative to semi-rigid cable especially when minimal flexure is desired. It uses the same simplified connectors and assembly tooling used for 0.086 and 0.141 versions of semi-rigid cables. This cable offers a suitable low cost solution in situations where compact interconnects are needed. The end user can effectively eliminate the cost of preparing cable bend drawings which preformed semi-rigid cables would require. Applications include stable ATE and test interconnects fixtures where cable movement and flexure is not constantly anticipated.

### Electrical Data

<b>Maximum Frequency:</b>	18.0 GHz
<b>Impedance:</b>	50 $\Omega$ nominal
<b>Propagation Velocity:</b>	70% nominal
<b>Time Delay:</b>	1.47 ns/ft (4.82 ns/m)
<b>Shielding Effectiveness:</b>	-90 dB minimum (cable only)
<b>Dielectric Withstanding Voltage:</b>	B08: 1.0 kV at 60 Hz B14: 3.0 kV at 60 Hz
<b>Capacitance:</b>	29 pF/ft (95.1 pF/m)

### Mechanical Data

<b>Finished Outer Diameter:</b>	B08: 0.104 in (0.264 cm) B14: 0.163 in (0.414 cm)
<b>Static Bend Radius:</b>	B08: 0.5 in (1.270 cm) B14: 0.8 in (2.032 cm)
<b>Weight with Standard Jacket/Armor:</b>	B08: 0.01 lbs/ft (0.021 kg/m) B14: 0.03 lbs/ft (0.048 kg/m)
<b>Operating Temp. Range:</b>	-85 to 392° F (-65 to 200° C) Above 185° F (85° C) use "T" designation

### Cable Construction

<b>Inner Conductor:</b>	Solid Ag-plated Cu-clad Steel
<b>Dielectric:</b>	PTFE
<b>Outer Conductor:</b>	Ag-plated Cu Flat Braid/ Ag-plated Cu Round Braid
<b>Standard Finish:</b>	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)



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# JumpShot™ (cont'd)

## Specifications

Frequency		B08 Series		B14 Series		Conn. Loss dB	VSWR
		Attenuation		Attenuation			
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
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

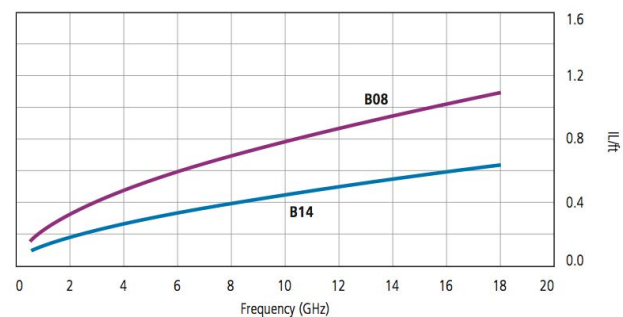
Note: Typical Insertion Loss dB = (Attenuation)(Length) + 2(Conn. Loss)

Attenuation at any frequency =

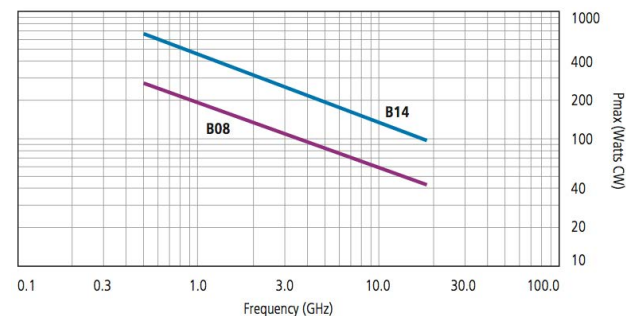
B08:  $(0.22097 \times \sqrt{\text{freq GHz}}) + (0.00903 \times \text{freq GHz})$

B14:  $(0.12357 \times \sqrt{\text{freq GHz}}) + (0.00643 \times \text{freq GHz})$

## 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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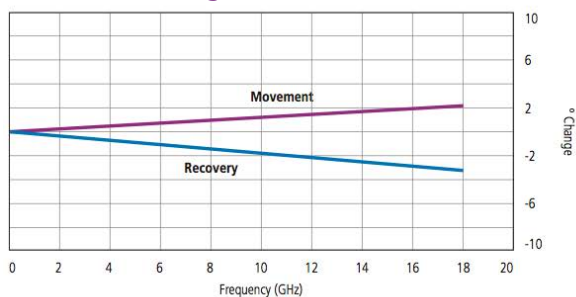
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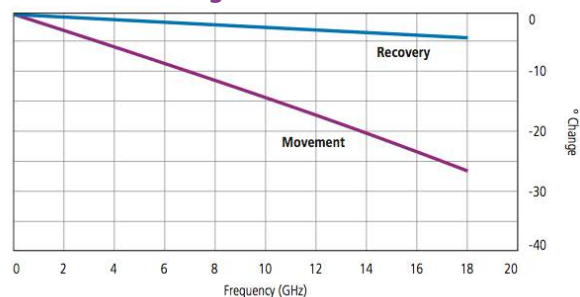
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## B08 Phase Change vs. Flexure



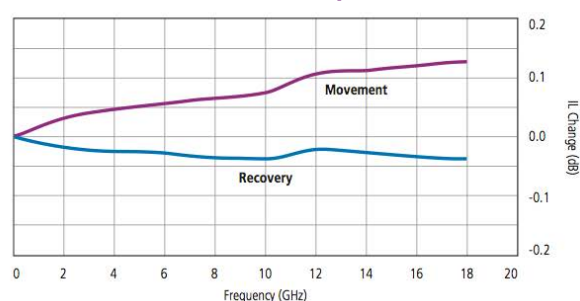
## B14 Phase Change vs. Flexure



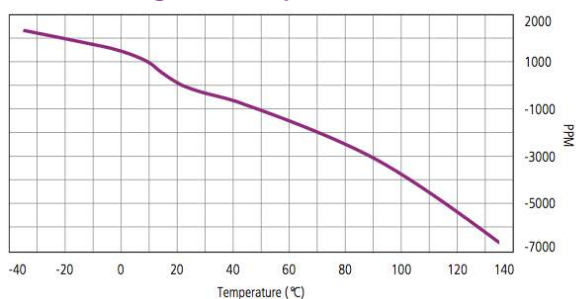
## B08 Insertion Loss vs. Temperature



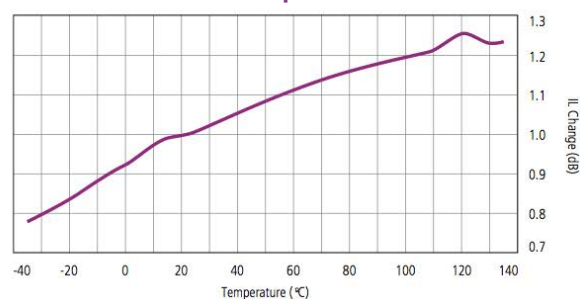
## B14 Insertion Loss vs. Temperature



## Phase Change vs. Temperature



## Insertion Loss vs. Temperature



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