

MEGAPHASE JUMPSHOT™ CABLES TO 18 GHZ



JumpShot™ Cables to 18 GHz

Low-Cost Jumper Cables for Systems Integration

- Cost-effective, ultra-flexible cable assemblies designed as replacements for semi-rigid RG402 and RG405 cables
- Double-shielded construction with a durable FEP jacket provides reliable performance for fixed-installation applications
- Ideal for ATE, switch matrices, and board fixtures, with .086 in (1.2 mm) and .141 in (2.18 mm) diameters and a wide range of connector options available

Electrical Data

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

Mechanical Data

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

Cable Construction

Inner Conductor	Dielectric	Outer Conductor	Standard Finish
Solid Ag-plated Cu-clad Steel	PTFE	Spiral Ag-plated Cu strip/ Ag-plated Cu Round Braid	FEP (a wide variety of other protective finishes and armors available)

Available Connectors

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

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

(maximum frequency dependent on cable)

Other connectors available upon request



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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	1.30
18.0		1.100	3.609	0.640	2.100	0.139	

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

Attenuation at any frequency =

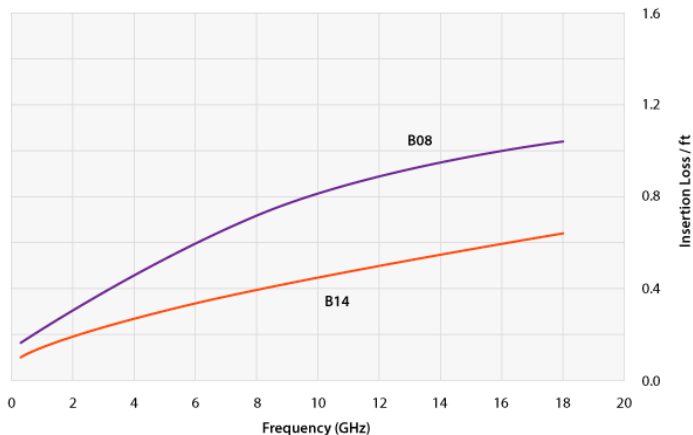
B08: $(0.22097 \times \sqrt{\text{freq GHz}}) + (0.00903 \times \text{freq GHz})$

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

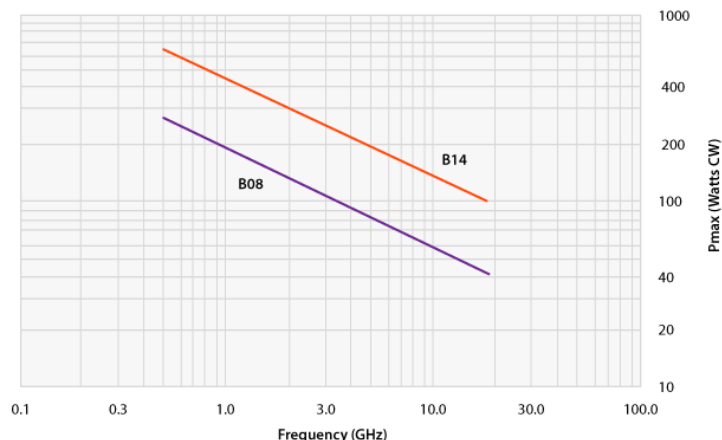


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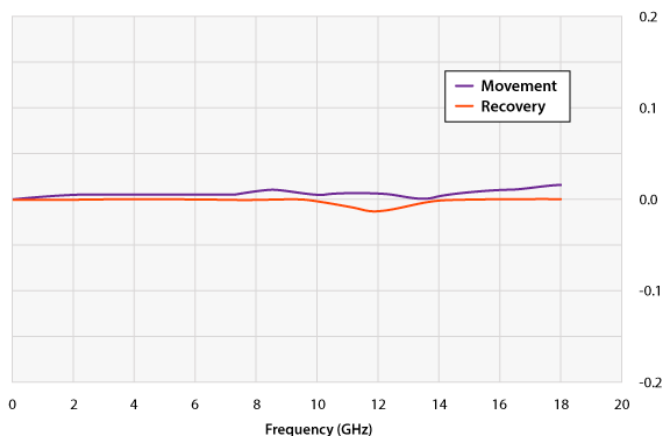
Insertion Loss



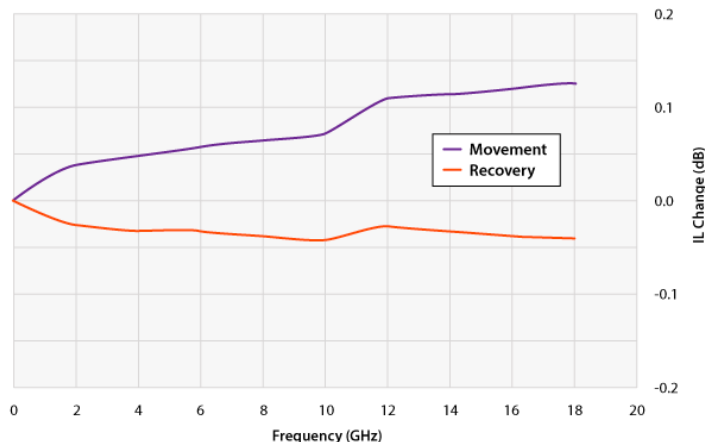
Cable CW Power Handling



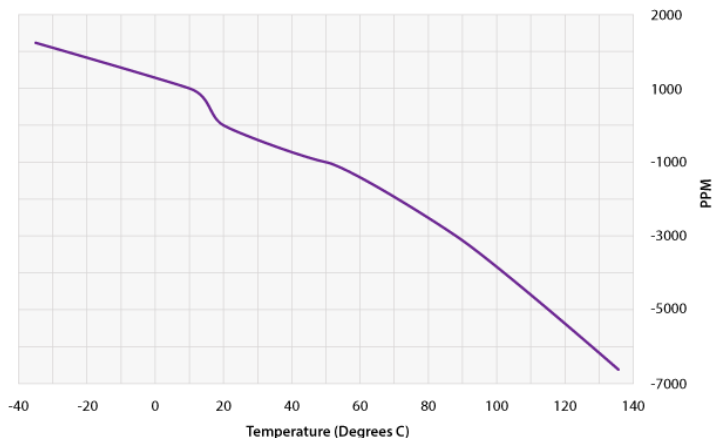
B08 Insertion Loss vs. Temperature



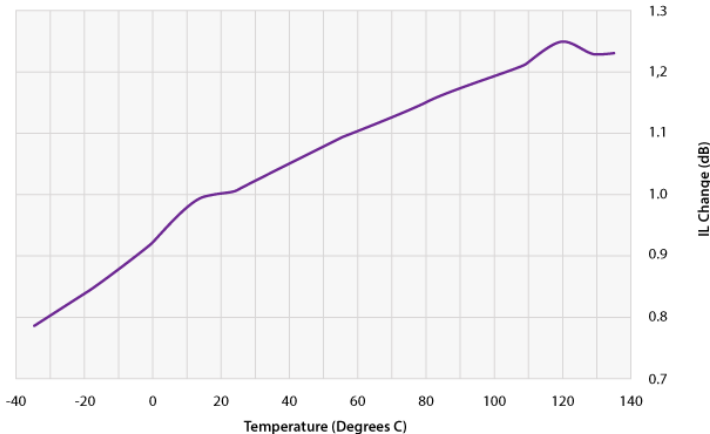
B14 Insertion Loss vs. Temperature



Phase Change vs. Temperature



Insertion Loss vs. Temperature



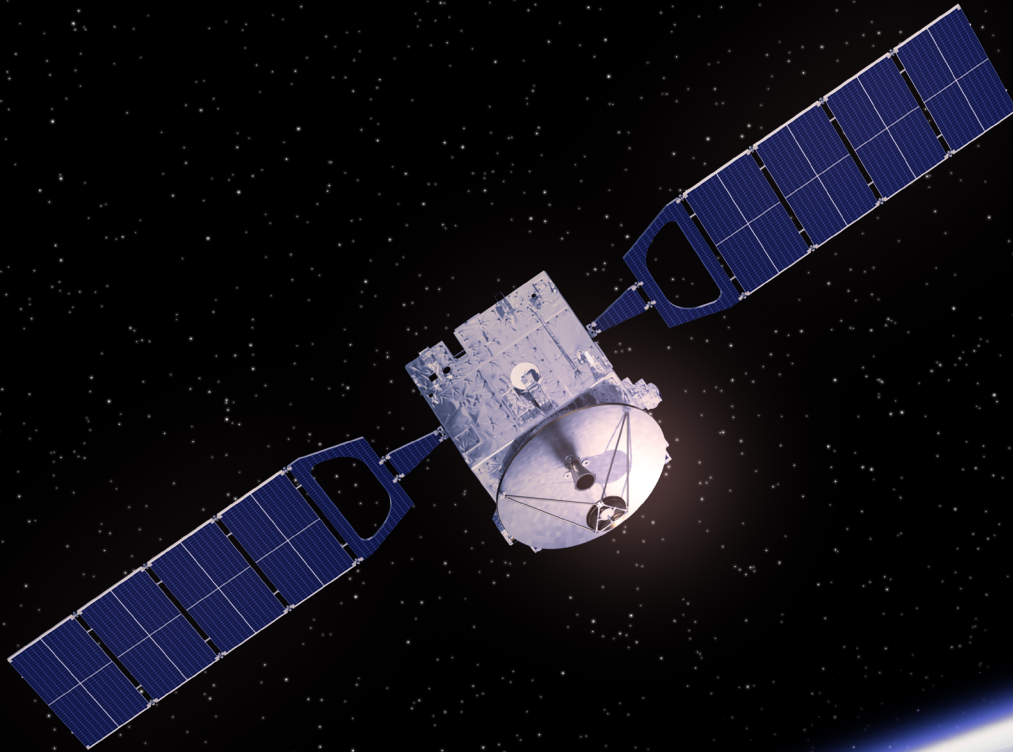
Note: Data at ambient temperature and sea level. Power handling of a cable assembly is also connector dependent and includes variables such as altitude, temperature and system VSWR. See website for connector power handling standards, including altitude, temperature and VSWR derating.





MegaPhase®

With the right connection anything is possible



Visit us at megaphase.com

About us

Founded in 1998 and headquartered in Stroudsburg, Pennsylvania, MegaPhase designs and manufactures high-performance RF coaxial cables and connectors for OEMs in critical markets including test instrumentation, defense, aerospace, telecommunications, and satellite systems. Serving more than 500 customers in 30 countries—including major technology leaders and the U.S. government—MegaPhase is best known for its industry-leading GrooveTube® technology, a breakthrough flexible cable design used in high-reliability, high-power, and phase-defined applications across ground, sea, air, and space platforms. All products are manufactured in-house, tested 100% in a state-of-the-art RF lab up to 110 GHz, and engineered to deliver exceptional phase stability, low loss, and long-term measurement repeatability, helping customers achieve more reliable results at a lower cost per measurement.

MegaPhase

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