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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: | Spiral Ag-plated Cu strip/ 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)

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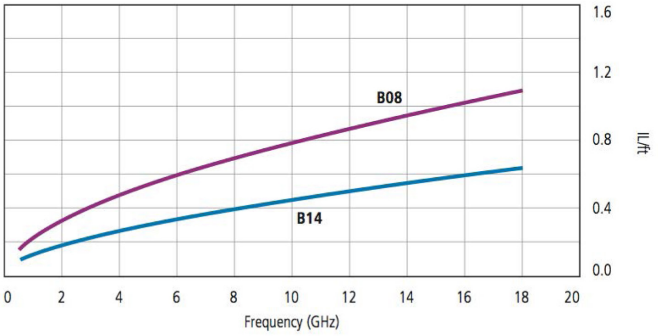
## Specifications

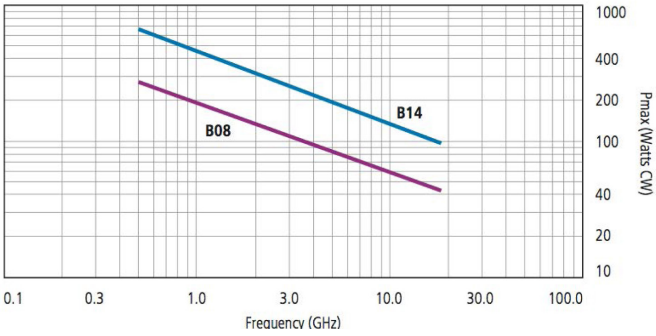
| Frequency | | B08 Series Attenuation | | B14 Series Attenuation | | Conn Loss dB | VSWR |
|---|---|---|---|---|---|---|---|
| GHz | Band | dB/ft | dB/m | dB/ft | dB/m | | |
| 0.3 | UHF | 0.124 | 0.406 | 0.070 | 0.228 | 0.006 | 1.10 |
| 0.5 | | 0.161 | 0.527 | 0.091 | 0.297 | 0.009 | |
| 0.8 | | 0.205 | 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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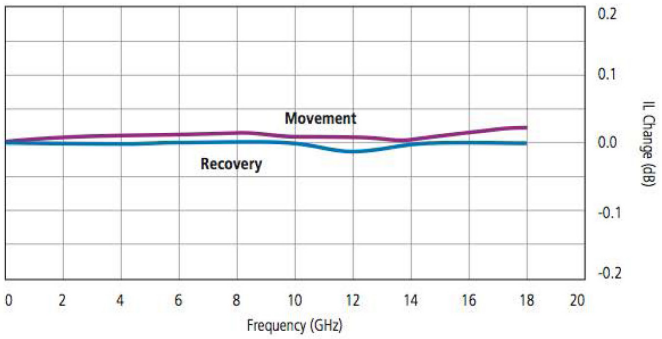
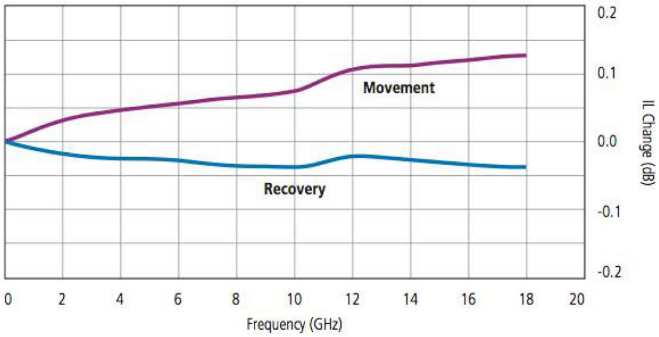
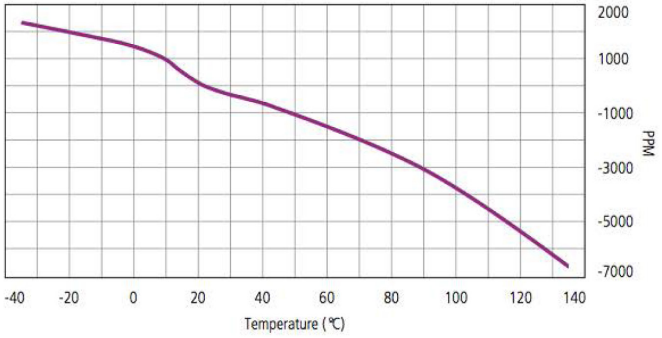
## B08 Insertion Loss vs. Temperature



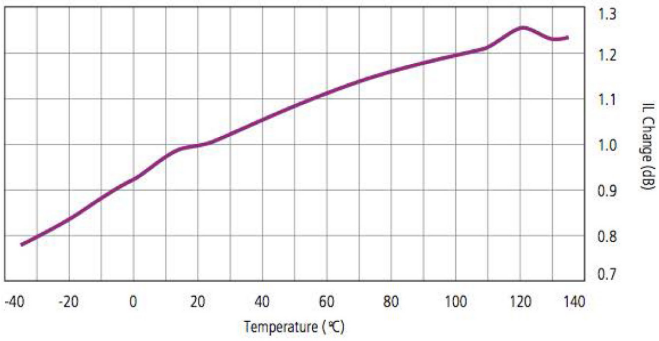

## B14 Insertion Loss vs. Temperature




## Phase Change vs. Temperature




## Insertion Loss vs. Temperature

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