

## BMR-Spring

### GENERAL

- Robust
- 50  $\Omega$
- DC – 8 GHz
- High power up to 350W at 2.7 GHz
- Board-to-board distance misalignment at least 0.078" (2 mm), custom misalignment of 3 mm+
- Tilt misalignment 6° max

Board-to-board connectors are becoming more and more popular for the use in RF equipment, which makes the system extra compact, reliable and cost effective compared to the traditional cable assembly solutions. Even in very high power and high frequency applications, connecting boards, modules or panels by rigid connectors are growing in popularity.

The high-performance and robust BMR-Spring can handle a minimum board-to-board (or rack and panel) distance tolerance of 0.078" (2 mm) with custom misalignment of 3 mm or more. It also features a 6° tilt (radial travel). It has an operating frequency range of DC-8 GHz, a 1.1 max VSWR guaranteed up to 3 GHz, and it can handle up to 350 watts of power at 2.7 GHz.

BMR-Spring also features a unique non-slotted spherical interface for improved electrical performance, high vibration and shock resistance, and an 80dB of shielding up to 3 GHz. A self-alignment mechanism makes the BMR-Spring particularly ruggedized for blind-mate applications. The spring-loaded adapters are symmetrical to avoid any assembly issues.

A typical BMR-Spring board-to-board system is made of three parts: slide-on receptacle, symmetrical adapter, and snap-on receptacle.

Custom configurations are available for board-to-board, module-to-module or rack and panel applications.

### APPLICATIONS

- Broadcast
- RF components
- Wireless communications
- Military equipment



Slide-on receptacle



Symmetrical adapter



Snap-on receptacle

# BMR-Spring

## CHARACTERISTICS

Impedance	50Ω
Frequency	DC - 8 GHz
Typical VSWR (board-to-board connection)	1.1 at 3 GHz
Insertion loss	0.1Vf dB
Power handling	350W at 2.7 GHz
RF leakage	-80dB to 3 GHz, radial misalignment 0 mm
Mating cycles	100 cycles
Minimum distance between PCB	30 mm
Radial misalignment tolerance	6° max
Axial misalignment tolerance	At least 0.078" (2 mm), custom misalignment of 3 mm+
Temperature range	-40°C +120°C

## MATERIAL AND PLATINGS

Parts	Materials	Platings
Body	Brass/Bronze	NPGR/BBR
Male center contact	Brass	NPGR
Female center contact	Beryllium copper	NPGR
Gasket	Silicon rubber	
Insulator	PTFE/PEEK	

NPGR: Nickel Phosphorous Gold Radiall  
BBR: Bright Bronze Radiall

For detailed specifications, please refer to the corresponding data sheet at [www.radiall.com](http://www.radiall.com).

## STRAIGHT SNAP-ON MALE RECEPTACLE



Part Number	Captive Center Contact	Packaging	Note
R328 424 002	Yes	Tape and reel 250 pcs	SMT
R328 424 012	Yes	Bulk 100 pcs	SMT

## IN-SERIES ADAPTER



Part Number	Series	Packaging
R328 705 000*	BMR-Spring Female / BMR- Spring Female	Bulk 100 pcs

\*For 30 mm board-to-board distance, custom in-series adapters are available on demand.

## STRAIGHT SLIDE-ON FEMALE RECEPTACLE



Part Number	Captive Center Contact	Packaging	Note
R328 424 500	Yes	Tape and reel 250 pcs	SMT
R328 424 510	Yes	Bulk 100 pcs	SMT

## BETWEEN-SERIES ADAPTERS



Part Number	Series	Packaging
R191 569 000	BMR-Spring Female/ SMA Female	Unit
R191 971 100	BMR-Spring snap-on Male/SMA Female	Unit
R191 972 100	BMR-Spring slide-on Male/SMA Female	Unit

## SAMPLE KIT

Part Number	Packaging
R328 895 000	Unit