

# Amphenol® RF

Global RF Solutions

## FEATURES & BENEFITS

**Smaller Package Size**

**Higher Frequency Range**

- SMP: typically used to 20 GHz
- SMPM: typically used to 40 GHz

**Compensate for Radial and Axial Misalignment**

## APPLICATIONS

**Aerospace**

**Board-to-Board Interconnect**

**Broadband**

**Instrumentation**

**Mil/Aero**

**Optical Nodes and Routers**

**Phased Array Antennas**

**Telecommunications**



# SMP Connectors

# SMP Connectors DC to 40GHz

Amphenol RF offers a solution for high frequency, high data rate applications in the SMP and SMPM (Mini-SMP) line of RF connectors. SMP connectors provide microwave performance through 40 GHz and offer a push-on, high performing microwave interconnect system.

The available detent systems, full and limited, provide respective levels of engagement/disengagement forces. This family of interconnects addresses all package design needs. Outside of microwave performance it can be utilized as a highly shielded interconnect for high data rate applications or in a board-to-board system using a floating bullet. This floating bullet provides a link between mated pairs compensating for both radial and axial misalignment. Available in a cable-to-board mated pair, the plug side can be provided in either right angle or straight with termination capability to either 0.047" or 0.086", semi-rigid or conformable coax. The receptacles are designed for surface-mount termination (SMT) or through hole, end launch for board edge or vertical mount.

## Specification

### Electrical

Impedance	50 $\Omega$
Frequency Range	DC – 40 GHz
VSWR	< 1.50

### Mechanical

Engagement Force	Limited Detent 10lbs. (44.5 N) max
Disengagement Force	Limited Detent 5lbs. (22.25 N) min
Mating Cycles	100 with full detent; > 500 with limited detent
Radial Float	.020 in total
Axial Float	.010 in total

### Environmental

Temperature Range	-65°C to +155°C
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## Conditions

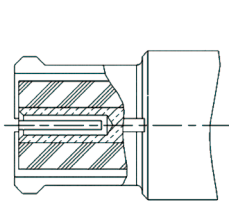
0 - 20 GHz

## Part Number

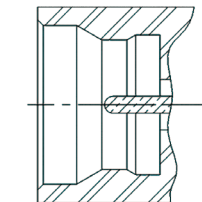
SMP-FSBA-645  
 SMP-FSBA-990  
 SMP-FSBA-145  
 SMP-FSBA-224  
 SMP-FS-C06  
 SMP-FS-C07  
 SMP-FR-C06  
 SMP-FR-C07  
 SMP-MSCM-PCT  
 SMP-MSFD-PCT\*  
 SMP-MSLD-PCT\*  
 SMP-MSSB-PCT\*  
 SMP-MSCM-PCS\*  
 SMP-MSFD-PCS\*  
 SMP-MSLD-PCS\*  
 SMP-MSSB-PCS-1\*  
 SMP-MSCM-PCR\*  
 SMP-MSFD-PCR\*  
 SMP-MSLD-PCR\*  
 SMP-MSSB-PCR\*  
 SMP-MSCM-PCE\*  
 SMP-MSFD-PCE\*  
 SMP-MSLD-PCE\*  
 SMP-MSSB-PCE\*

## Description

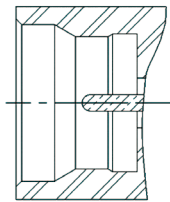
Bullet (female-to-female), 6.45mm  
 Bullet (female-to-female), 9.90mm  
 Bullet (female-to-female), 14.5mm  
 Bullet (female-to-female), 22.4mm  
 Straight Cable (female), to .047 S/R  
 Straight Cable (female), to .086 S/R  
 R/A Cable (female), to .047 S/R  
 R/A Cable (female), to .086 S/R  
 Straight PCB (male), Thru-Hole Catcher's Mitt  
 Straight PCB (male), Thru-Hole Full Detent  
 Straight PCB (male), Thru-Hole Limited Detent  
 Straight PCB (male), Thru-Hole Smooth Bore  
 Straight PCB (male), Surface Mount Catcher's Mitt  
 Straight PCB (male), Surface Mount Full Detent  
 Straight PCB (male), Surface Mount Limited Detent  
 Straight PCB (male), Surface Mount Smooth Bore  
 Straight PCB (male), Rear Mount Catcher's Mitt  
 Straight PCB (male), Rear Mount Full Detent  
 Straight PCB (male), Rear Mount Limited Detent  
 Straight PCB (male), Rear Mount Smooth Bore  
 Straight PCB (male), Edge Mount Catcher's Mitt  
 Straight PCB (male), Edge Mount Full Detent  
 Straight PCB (male), Edge Mount Limited Detent  
 Straight PCB (male), Edge Mount Smooth Bore



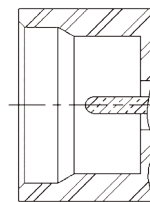
Female



Male Limited Detent



Male Full Detent



Smooth Bore

### \*Contact Factory for Availability

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Rev. C

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