

# 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

## Conditions

### Electrical

Impedance	50 Ω	
Frequency Range	DC – 40 GHz	
VSWR	< 1.50	0 - 20 GHz

### 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

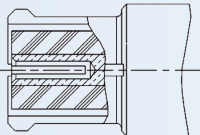
### Environmental

Temperature Range	-65°C to +155°C
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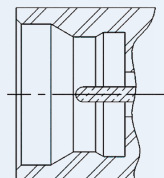
## Part Number

## Description

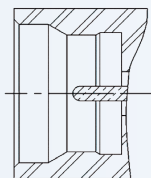
SMP-FSBA-645	Bullet (female-to-female), 6.45mm
SMP-FSBA-990	Bullet (female-to-female), 9.90mm
SMP-FSBA-145	Bullet (female-to-female), 14.5mm
SMP-FSBA-224	Bullet (female-to-female), 22.4mm
SMP-FS-C06	Straight Cable (female), to .047 S/R
SMP-FS-C07	Straight Cable (female), to .086 S/R
SMP-FR-C06	R/A Cable (female), to .047 S/R
SMP-FR-C07	R/A Cable (female), to .086 S/R
SMP-MSCM-PCT	Straight PCB (male), Thru-Hole Catcher's Mitt
SMP-MSFD-PCT*	Straight PCB (male), Thru-Hole Full Detent
SMP-MSLD-PCT*	Straight PCB (male), Thru-Hole Limited Detent
SMP-MSSB-PCT*	Straight PCB (male), Thru-Hole Smooth Bore
SMP-MSCM-PCS*	Straight PCB (male), Surface Mount Catcher's Mitt
SMP-MSFD-PCS*	Straight PCB (male), Surface Mount Full Detent
SMP-MSLD-PCS*	Straight PCB (male), Surface Mount Limited Detent
SMP-MSSB-PCS-1*	Straight PCB (male), Surface Mount Smooth Bore
SMP-MSCM-PCR*	Straight PCB (male), Rear Mount Catcher's Mitt
SMP-MSFD-PCR*	Straight PCB (male), Rear Mount Full Detent
SMP-MSLD-PCR*	Straight PCB (male), Rear Mount Limited Detent
SMP-MSSB-PCR*	Straight PCB (male), Rear Mount Smooth Bore
SMP-MSCM-PCE*	Straight PCB (male), Edge Mount Catcher's Mitt
SMP-MSFD-PCE*	Straight PCB (male), Edge Mount Full Detent
SMP-MSLD-PCE*	Straight PCB (male), Edge Mount Limited Detent
SMP-MSSB-PCE*	Straight PCB (male), Edge Mount Smooth Bore



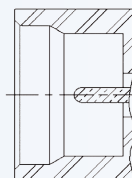
Female



Male Limited Detent



Male Full Detent



Smooth Bore

### \*Contact Factory for Availability

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Rev. C

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