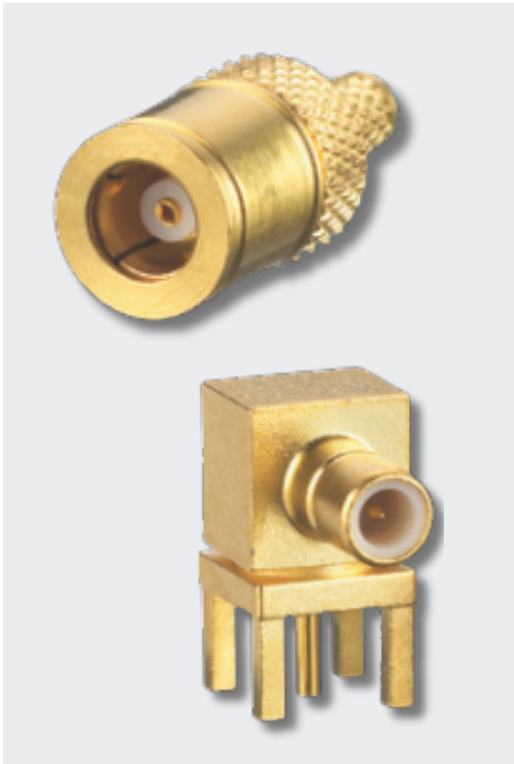


SMB Series Connectors

Aptiv SMB Series connectors are small form factor coaxial RF connectors with a snap-on coupling for quick, reliable connect/disconnect. The small size makes them well-suited to space limited designs, yet they also offer consistent electrical performance up to 4 GHz. SMB connectors find application in telecommunications, automotive GPS/infotainment, test & measurement, wireless modules, and other areas with frequent mating cycles.



KEY FEATURES & BENEFITS

- Snap-On Coupling – Quick, tool-less mating and un-mating
- Compact Design – Ideal for space-limited or high-density applications
- Broad Frequency – Reliable operation up to 4 GHz
- 50 Ω Standard – Compatible with most RF systems (75 Ω versions also available)
- Reliable Performance – Low VSWR and insertion loss for consistent signal transmission
- Cost-Effective – Economical choice for commercial and industrial applications
- Versatile Terminations – Available in straight, right-angle, bulkhead, and PCB mount

PRODUCT SPECIFICATIONS

Electrical Properties*	
Impedance	50 Ohms (standard); 75 Ohms also available
Frequency Range	DC to 4 GHz
Voltage Rating	335 VRMS (max.)
Dielectric Withstanding Voltage	750 VRMS (min.)
Contact Resistance	Center Contact: $\leq 6.0 \text{ m}\Omega$ (typical) Outer Contact: $\leq 2.0 \text{ m}\Omega$ (typical)
Insulation Resistance	$\geq 1000 \text{ M}\Omega$
VSWR (Voltage Standing Wave Ratio)	50 Ohm: Typical ≤ 1.30 @ 4 GHz 75 Ohm: Typical ≤ 1.25 @ 1 GHz
Insertion Loss	$\leq 0.15 \text{ dB}$ @ 3 GHz (typical)
RF Leakage	$\geq -55 \text{ dB}$ @ 3 GHz (typical for 50 Ohm)

*reference website for specific part number specifications

PRODUCT SPECIFICATIONS CONTD.

Environmental Properties*	
Temperature Range	-55°C to +165°C (standard)
Thermal Shock	MIL-STD-202, Method 107, Test Condition B (from -55°C to +165°C)
Vibration	MIL-STD-202, Method 204, Test Condition B (15 G's)
Shock	MIL-STD-202, Method 213, Test Condition I (100 G's)
Moisture Resistance	MIL-STD-202, Method 106
Corrosion (Salt Fog)	MIL-STD-202, Method 101, Test Condition B (48 hours)
Durability	Engineered for reliable performance in various commercial and industrial electronic applications.

*reference website for specific part number specifications

PRODUCT SPECIFICATIONS CONTD.

Mechanical Properties*	
Coupling Mechanism	Snap-on
Mating Cycles	≥ 500 cycles (standard); higher for test-grade
Mating Force	Low insertion and withdrawal forces, facilitating easy handling.
Cable Retention	Varies by cable type and termination method (e.g., 20-40 lbs for crimp types).
Body Material	Brass (typically gold or nickel plated)
Center Contact Material	Beryllium Copper, Phosphor Bronze, or Brass (typically gold plated)
Dielectric/Insulator Material	PTFE (Polytetrafluoroethylene) or other suitable plastics
Interface Dimensions	Conforms to MIL-STD-348, Interface 311.

*reference website for specific part number specifications