

# SMA SPECIFICATIONS



COAXICOM SMA CONNECTORS are manufactured to have excellent performance up to 18 GHz. The pages that follow include types that are used on coaxial cable (flexible, Ultra-Flex and semi-rigid), as launchers into stripline or microstrip, or as receptacles or bulkhead, panel and printed circuit board mounting. Also included are hermetically sealed devices and intra (within) series adapters.

Gold plated stainless steel or passivated (stainless finish) versions are standard in order to meet the finish and corrosion requirements of MIL-PRF-39012. Passivated stainless steel is specified with a suffix of -9 (soldering areas are gold plated as necessary). A suffix of -1 indicates gold plating. Where nickel plating is available, the suffix is -7.

Interface dimensions as well as all other applicable requirements are in accordance with MIL-PRF-39012 and other military standards where the need exists.

### MILITARY SPECIFICATIONS

MIL-PRF-39012, MIL-A-55339, MIL-C-83517 and MIL-STD-348 as applicable

### MATERIAL

Bodies, Coupling nut (except as noted)	Non magnetic stainless steel per ASTM-A-582, type 303
Center Contacts	Beryllium Copper per ASTM-B-196, heat treated per MIL-H-7199. Gold plated per MIL-PRF-39012 IAW MIL-G-45204
Plating	Gold plated or passivated to meet the corrosion requirements of MIL-PRF-39012
Insulators	TFE Fluorocarbon per ASTM-D-1457
Weatherproof Gaskets	Silicone rubber per ZZ-R-765 class 2B, grade 65-75
Lockwashers	Stainless steel, internal tooth supplied with bulkhead mounted connectors
Crimp Ferrules	Brass

### ELECTRICAL

Impedance	50 Ω
Frequency Range	DC-18 GHz
Voltage Rating	500 VRMS for specific types
Dielectric Withstanding Voltage	1000 VRMS Per MIL-STD-202, method 301 for specific types
VSWR	1.15 max where applicable
Contact Resistance	Center: 2.0 milliohms Body: 2.0 milliohms Braid to body: 0.5 milliohms
Insulation Resistance	5,000 megohms (min.)
RF Leakage	-(100-fGHz) dB
Insertion Loss (-dB)	.03x√f(GHz) max.

\* Characteristics are typical and may not apply to all connectors.

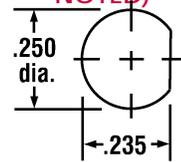
### MECHANICAL

Engage/Disengage	2 inch-pounds max
Coupling Proof Torque	15 inch-pounds max
Cable Retention	60 pounds minimum. Bending and twisting requirements do not apply
Connector Durability	500 cycles of insertion and withdrawal

### ENVIRONMENTAL

Temperature	̄ 65° to +165° C ̄ 85° to +299° F
Hermetic Seals	Helium Leakage test 10 <sup>-7</sup> cc/sec
Shock	MIL-STD-202, method 213, test condition I
Vibration	MIL-STD-202, method 204, test condition D
Moisture Resistance	MIL-STD-202, method 106, (high humidity does not apply)
Corrosion	MIL-STD-202, method 101, test condition B, 5% salt solution
Thermal Shock	MIL-STD-202, method 107, test condition B, high temperature test @ 200°C
Altitude	MIL-STD-202, method 105, test condition C, at 375 VRMS, no corona at 70,000 feet

### BULKHEAD MOUNTING SPECIFICATIONS: (UNLESS NOTED)



### SMA INTERFACE DIMENSIONS

