

## Product Data Sheet

### SERIES SMA Waterproof - WATERPROOF SUB-MINIATURE CONNECTORS

*Typical Applications – Mil-Aero, Safety, Radar, Marine, SCADA and Telematics*

#### GENERAL DESCRIPTION

This sub-miniature connector series is designed to be compatible with the small semi-rigid cables that have very low VSWR at high frequencies. In addition, other connectors in the series can accommodate flexible coaxial cable, PCB, flange, surface, edge and bulkhead configurations. This series has a 1/4-36 screw thread coupling mechanism and is specified for use up to 18 GHz..

SMA Waterproof Connectors and Adaptors are specified to IP68/NEMA 6. Minimum 10m depth for 4 hours.



#### MATERIALS/ Plating Options

Bodies & Other Parts: Brass per ASTM B16 or Stainless Steel per ASTM A582 Nickel: Per QQ-N-290, Class II, Silver: Per QQ-S-365, Type II, Grade A, Passivate: Per QQ-P-35, Type II, Gold: Per MIL-G-45204, Type II, Grade C

Female Contacts: Beryllium Copper per ASTM B196 or equiv. Gold: Per MIL-G-45204, Type II, Grade C, Silver: Per QQ-S-365, Type II, Grade A

Male Contacts: Brass per ASTM B16 or equivalent. Gold: Per MIL-G-45204, Type II, Grade C, Silver: Per QQ-S-365, Type II, Grade A

Insulators (Dielectric): PTFE Fluorocarbon per ASTM D1710 or equivalent.

Gaskets: Silicone Rubber per AA59588 or equivalent.

#### MECHANICAL SPECIFICATION

Force to Engage and Disengage: 2 in-lbs. max.

Coupling Proof Torque: 7-10 in-lbs. min.

Coupling Nut Retention Force: 60 lbs. Min.

Mating Cycles: 500 min.

### ELECTRICAL SPECIFICATION

Impedance: 50 Ohms Nominal

Frequency Range: DC-18 GHz

Insulation Resistance: 5,000 Megohms min.

Voltage Rating: 335 VRMS

Dielectric Withstanding: 1,500 VRMS at sea level

Voltage Standing Wave Ratio (VSWR): 1.05 max.

Contact Resistance: Outer Contact: 3 Milliohms, Center Contact: 2 Milliohms

### ENVIRONMENTAL SPECIFICATION

Waterproofing: Meets IP68 per IEC 60529 / NEMA6, tested to a 10 meter water depth in an unmated condition for a duration of 4 hours.

Temperature rating: -65°C to +165°C

Vibration: MIL-STD-202, Method 204

Shock: MIL-STD-202, Method 213

Thermal Shock: MIL-STD-202, Method 107

Corrosion (Salt Spray): MIL-STD-202, Method 101

Moisture Resistance: MIL-STD-202, Method 106

### DESIGNED IN ACCORDANCE WITH:

US MIL-PRF-39012, MIL-STD-348

IEC: 169-15, 60529, CECC: 22 110, BS 9210N0006

INTELLICONNECT: ES101, ES103

