

SMA DESIGN FEATURES & SPECIFICATIONS

SMA DESIGN FEATURES: SGMC Microwaves SMA series (Sub-Miniature-A) are precision grade connectors designed for use with microwave applications requiring excellent performance up to 18 GHz and beyond to 26.5 GHz. The SMA series is mechanically compatible with 3.5mm and 2.92mm connector series. SGMC offers an extensive line of SMA precision adapters, receptacles, and cable connectors for various semi-rigid and flexible coaxial cables. Special designs are also available upon request.

- Frequency Range: DC to 18 GHz and beyond to 26.5 GHz
- Mechanically compatible with 3.5mm & 2.92mm connector series
- Ruggedized construction for repeatability and reliability
- Captivated Center Contact
- Low VSWR and insertion loss



SMA SPECIFICATIONS (General)

ELECTRICAL

Frequency Range:	DC to 18 GHz and beyond to 26.5 GHz
Nominal Impedance:	50 Ohms
Temperature Range:	-65°C to +165°C
VSWR: (Individual results may vary)	1.25:1 Max
Insertion Loss:	0.30 dB Max
Insulation Resistance:	5,000 megaohms minimum
Dielectric Withstanding Voltage:	750 Volts RMS

MECHANICAL

Mating:	(1/4") .250 - 36 UNS threaded coupling
Recommended Mating Torque:	8-10 inch-pounds
Coupling Proof Torque:	15 inch-pounds minimum
Coupling Nut Retention:	Axial force is 60 in-lb minimum (Male Only)
Connector Durability:	500 cycles minimum

ENVIRONMENTAL

Corrosion (salt spray):	MIL-STD-202, Method 101, Test Condition B (5% Salt Solution)
Vibration:	MIL-STD-202, Method 204, Test Condition D (20 Gs)
Shock:	MIL-STD-202, Method 213, Test Condition I (100 Gs)
Temperature Cycling:	MIL-STD-202, Method 102, Test Condition C
Moisture Resistance:	MIL-STD-202, Method 106

MATERIAL

Body Components:	Corrosion resistant Type 303 (Stainless Steel) Non-Magnetic, per ASTM-A-484 and ASTM-A-582
Center Contacts:	Beryllium Copper per ASTM-B-196, alloy C17300, ASTM Temper (condition) TD04
Dielectric:	Fluorocarbon (PTFE) per ASTM-D-1710, Type 1, Grade 1, Class A
Gaskets & "O" Rings:	Silicone Rubber per ZZ-R-765 & MIL-R-5847 Class 2 A&B, Grades 50~70. (A-A-59588)

FINISH

Body Components:	Passivated per ASTM-A-967 & AMS-QQ-P-35
Center Contacts:	Gold Plate to a minimum thickness of 50 micro inches per ASTM-B-488, Type 2, Code C, Class 1, over 50 micro inches minimum of Nickel per AMS-QQ-N-290, Class 1

(Consult factory for individual product specifications)

DWG NO.	SMA Series	SGMC MICROWAVE www.sgmcmicrowave.com	REVISIONS		
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