

# TNC DESIGN FEATURES & SPECIFICATIONS

**TNC(A) DESIGN FEATURES:** SGMC Microwaves TNC(A) series are precision grade connectors designed for use with microwave applications requiring excellent performance up to 18 GHz. SGMC offers an extensive line of TNC and TNCA 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 (Extended Performance)
- Ruggedized construction for repeatability and reliability
- Captivated Center Contact
- Low VSWR and insertion loss



## TNC(A) SPECIFICATIONS (General)

### ELECTRICAL

<b>Frequency Range:</b>	<b>DC to 18 GHz (Standard)</b>
<b>Nominal Impedance:</b>	50 Ohms
<b>Temperature Range:</b>	-65°C to +165°C
<b>VSWR:</b>	1.25:1 Max
<b>Insertion Loss:</b>	0.35 dB Max
<b>Dielectric Withstanding Voltage:</b>	1,500 Volts RMS

### MECHANICAL

<b>Mating:</b>	(7/16") .4375-28 UNEF threaded coupling
<b>Recommended Mating Torque:</b>	12-15 inch-pounds
<b>Coupling Proof Torque:</b>	30 inch-pounds minimum
<b>Coupling Nut Retention:</b>	Axial force is 100 pounds minimum (Male Only)
<b>Connector Durability:</b>	500 cycles minimum

### ENVIRONMENTAL

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

### MATERIAL

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

### FINISH

<b>Body Components:</b>	Passivated per ASTM-A-967 & AMS-QQ-P-35
<b>Center Contacts:</b>	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.	<b>TNC(A) Series</b>	<b>SGMC MICROWAVE</b> <a href="http://www.sgmcmicrowave.com">www.sgmcmicrowave.com</a>	REVISIONS		
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