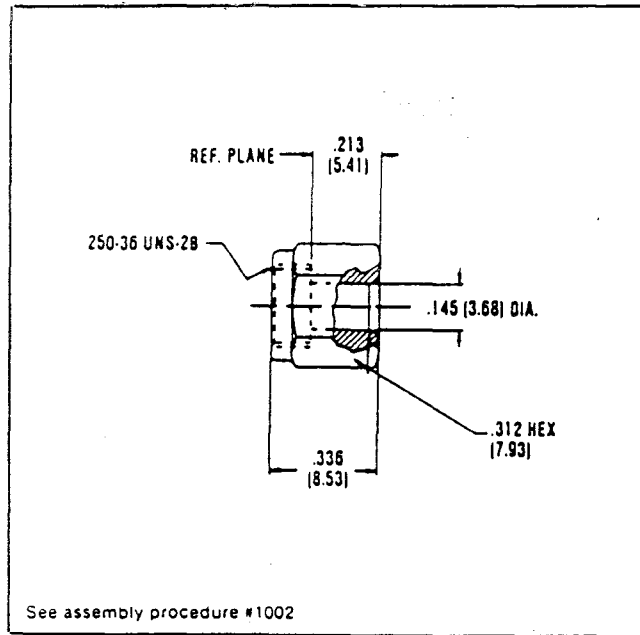


# S M A

## STRAIGHT SMA CABLE PLUG

Figure 6 (UT\*141A)  
11 SMA-50-3-222



**MICROSTOCK, INC.**

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WEST POINT, PA 19486-0091  
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## SPECIFICATIONS

### materials

**Body parts:** Stainless steel per QQ-S-764, Type 303, Condition A.  
**Center contacts:** Beryllium copper per QQ-C-530, Condition HT.  
**Dielectrics:** Solid PTFE per ASTM D-1457.  
**Gaskets:** Silicone rubber per ZZ-R-765, Class 2B, Grade 70.

### finish

**Bodies and center contacts:** Gold plate per MIL-G-45204, Type II, Class 1, over nickle plate per QQ-N-290, Class 2.

### electricals

**Insulation resistance:** 5000 megohms minimum.  
**Dielectric withstanding voltage:** 1000 VAC RMS @ sea level UT\*85; 1500 VAC RMS @ sea level UT\*141A.  
**RF high potential withstanding voltage:** 670 volts RMS @ 5 MHz UT\*85; 1000 volts RMS @ 5 MHz UT\*141A.  
**Contact resistance:** center contact 3.0 milliohms maximum; outer contact 2.0 milliohms maximum.  
**Nominal impedance:** 50 ohms.  
**Frequency Range:** 0-26.5 GHz.  
**SWR:** UT\*85 - Male -  $1.05 + .006f$  (GHz).  
Female -  $1.05 + .006f$  (GHz).  
UT\*141 - Male with pin -  $1.05 + .006f$  (GHz).  
Male pinless -  $1.035 + .005f$  (GHz).  
Female -  $1.05 + .006f$  (GHz).

**Insertion loss:**  $0.03 \sqrt{f}$  (GHz) maximum.  
**RF leakage:** -90dB minimum from 2 to 3 GHz

### mechanical\*

**Force to engage and disengage:** Torque 2 inch - pounds maximum; longitudinal force - N/A  
**Coupling nut retention force:** Female connectors - N. A  
Male connectors - 100 lbs. minimum.  
**Cable retention force:** UT\*85 - 30 lbs. minimum.  
UT\*141A - 60 lbs. minimum.  
**Recommended mating torque:** 7-10 inch - pounds  
**Mating characteristics:** per MIL-STD-348. (Fig. 1, 2, and 3).  
**Connector durability:** 500 mating/unmating cycles minimum.

### environmental

**Vibration:** (per MIL-STD-202) method 204 test condition D.  
**Shock:** (per MIL-STD-202) method 213, test condition I.  
**Corrosion (salt spray):** (per MIL-STD-202) method 101, test condition B @ 5% salt solution for 48 hours.  
**Moisture resistance:** (per MIL-STD-202) method 106, Step 7b (vibration) omitted.  
**Corona level:** altitude 70,000 ft.  
UT\*85 - 250 VRMS minimum.  
UT\*141A - 375 VRMS minimum.  
**Operating temperature:** -54°C to 125°C.

\* Specifications to apply when connector is mated in accordance with the specifications of MIL-STD-348.

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