



TNC 18 GHz

CHARACTERISTICS

TEST / CHARACTERISTICS	MIL-C-39012 A	VALUES / REMARKS
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ELECTRICAL CHARACTERISTICS

Impedance	-	50Ω
Frequency Range	-	DC - 18 GHz
V.S.W.R.	3-14	Semi-Rigid Cable: 1.17 max Flexible Cable: 1.35 at 12.4 GHz In Series Adapter: 1.35 max
Insertion loss	3-27	0.18 dB max at 9 GHz
RF Leakage	3-26	-60 dB min from 2 to 3 GHz
Insulation Resistance	3-11	5000 MΩ min
Contact Resistance	3-16	Initial After Proof
• Center Contact (mΩ)	-	1.5 2
• Outer Contact (mΩ)	-	0.2 -
Working Voltage	-	At sea level: 500 V rms at 70000 ft (21000 m): 125 V rms
Dielectric Withstanding Voltage	3-17	At sea level: 1500 V rms at 70000 ft (21000 m): 375 V rms
RF Withstanding Voltage	3-23	At sea level: 1000 V rms (5 MHz sine wave)

MECHANICAL CHARACTERISTICS

Durability	3-15	500 Matings
Mating / Unmating	-	Axial Force: Not Applicable Torque: 1.96 inch pounds (22.6 N.cm)
Recommended Mating Torque	-	22.98 inch pounds (265 N.cm)
Proof Torque	-	29.40 inch pounds (339 N.cm)
Coupling Mechanism Retention Force	3-25	100 Lbf (44.5 daN)
Cabling Retention Force	3-24	51 Lbf (227 N min) (cable dia. .189 (4.8) to .228 (5.8)) 76.4 Lbf (340 N min) (cable dia. .250 (6.35) and above)
Center Contact Retention	-	Axial: 6.06 Lbf (27 N)

ENVIRONMENTAL CHARACTERISTICS

Temperature Range	-	-65 °C / + 165 °C
• Standard Models	-	-65 °C / +100 °C
• Hermetic Sealed Models	-	-65 °C / +105 °C
• Models for Semi-Rigid Cables	-	
Combined Climate Tests		
Thermal Shock	3-20	MIL-STD-202, Method 107, Condition B
High Temperature Endurance	-	MIL-STD-202, Method 108
Corrosion (Salt Spray)	3-13	MIL-STD-202, Method 101, Condition B
Vibrations	3-18	MIL-STD-202, Method 204, Condition B
Shocks	3-19	MIL-STD-202, Method 213, Condition G
Moisture Resistance	3-21	MIL-STD-202, Method 106
Low Pressure	3-22	Not Applicable
Hermetic Seal	-	Applied Vacuum 10 ⁻⁶ mm of Hg (Torrs) Leakage Rate < 10 ⁻⁶ atm/cm ³ /s
Leakage	-	Pressure 3.5 bars; Duration 2 mn; Temperature 15 °C to 25 °C

MATERIALS

Body	-	Stainless Steel
Center Socket Contact		
• Male	-	Brass
• Female	-	Bronze
Ferrules	-	Brass
Insulators	-	PTFE Teflon
Gaskets	-	Silicone Elastomer

PLATING

Body	-	Passivated
Center Contacts	-	Gold Plated