SMC

CHARACTERISTICS

TEST / CHARACTERISTICS		MIL-C-39012 PARAGRAPH	VALUES / REMARKS	
ELECTRICAL CHARACTERISTICS				
Impedance		-	50Ω	
Frequency Range		-	DC - 10 GHz	
V.S.W.R. (typ.) **• Straight** **• Right Angle**	**Cable**	3-14	2/50 1.25 + 0.04 F (GHz) 1.40 + 0.06 F (GHz)	2.6/50 1.20 + 0.04 F (GHz) 1.30 + 0.04 F (GHz)
Insertion Loss **• Straight** **• Right Angle**		3-27	0.25 dB max. at 4 GHz 0.5 dB max. at 4 GHz	
RF Leakage		3-26	-60 dB min between 2 and 3 GHz	
Insulation Resistance		3-11	1000 MΩ min	
Contact Resistance **• Center Contact (mΩ)** **• Outer Contact (mΩ)**		3-16 - -	Initial 6 1	After Environment 8 1.5
Voltage Rating (volts RMS) **• At Sea Level** **• At 70000 ft (21000 m)**	**Cable**	- - -	2/50 250 V rms 60 V rms	2.6/50 335 V rms 85 V rms
Dielectric Withstanding Voltage **• At Sea Level** **• At 70000 ft (21000 m)**	**Cable**	3-17 - -	2/50 750 V rms 185 V rms	2.6/50 1000 V rms 250 V rms
RF High Potential Withstanding Voltage (Frequency 5 MHz) **• At Sea Level**	**Cable**	3-23 -	2/50 500 V rms	2.6/50 700 V rms
MECHANICAL CHARACTERISTICS				
Durability		3-15	500 Matings	
Force to Engage and Disengage		3-5-1	Torque: 16 inch-ounces max - 11.3 Ncm	
Mating Torque		-	35 to 50 inch-ounces - 25 to 35 Ncm	
Coupling Nut Proof Torque		-	100 inch-ounces - 71 Ncm	
Coupling Nut Retention Force		3-25	35 lbs min - 156 N min	
Cabling Retention Force	**Cable**	3-24	2/50 13 lbs - 58 N	2.6/50 25 lbs - 110 N
Contact Captivation		-	Axial Force: 4 lbs - 18 N Torque: Not Applicable	
ENVIRONMENTAL CHARACTERISTICS				
Operating Temperature Range **• Standard Models and Hermetic** **• Models for Semi-Rigid Cables**		- -	-65 °C / + 165 °C -65 °C / +105 °C	
Temperature Cycling		-	MIL-STD-202, Method 102, Condition C	
Thermal Shock		3-20	MIL-STD-202, Method 107, Condition B	
High Temperature Test		-	MIL-STD-202, Method 108	
Corrosion (Salt Spray)		3-13	MIL-STD-202, Method 101, Condition B, 5%	
Vibration		3-18	MIL-STD-202, Method 204, Condition D, 20g	
Shock		3-19	MIL-STD-202, Method 213, Condition C, 100g	
Moisture Resistance		3-21	Not Applicable	
Barometric Pressure		3-22	MIL-STD-202, Method 105, Condition C	
Hermetic Test		-	Down to 10^{-6} mm Hg (Torr) Leak rate <1 x 10^{-6} atm/cm^3/sec	

MATERIALS AND PLATING

	Material	Plating
Bodies and Male Contacts	Brass, Half Hard per QQ-B-626	Gold to Satisfy the Corrosion Requirements (Bodies)
Female Contacts and Interfaces	Beryllium Copper per QQ-C-530	Gold (Center contact)
Ferrules	Brass	-
Insulators	PTFE Teflon	-
Gasket	Silicone Rubber	-

All dimensions are given in mm.