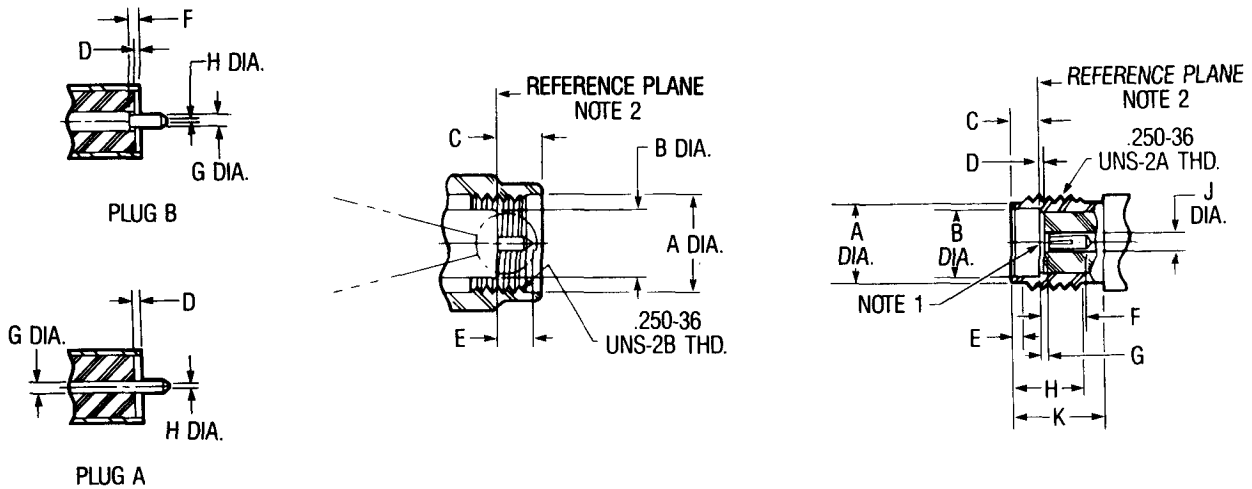




PLUG

Letter	Inches (Millimeters) ³	
	Minimum	Maximum
A	.250 (6.35)	-
B	-	.1808 (4.59)
C	-	.135 (3.43)
D	.000 (0.00)	.007 (0.25)
E	-	.100 (2.54)
F	.000 (0.00)	.010 (0.25)
G	.0355 (0.90)	.0370 (0.94)
H	.000 (0.00)	.015 (0.38)

JACK

Letter	Inches (Millimeters) ³	
	Minimum	Maximum
A	.208 (5.28)	.216 (5.49)
B	.1810 (4.60)	-
C	.075 (1.91)	.078 (1.98)
D	.000 (0.00)	.007 (0.25)
E	.015 (0.38)	.045 (1.43)
F	.115 (2.92)	-
G	.000 (0.00)	.010 (0.25)
H	.170 (4.32)	-
J	.049 (1.24)	.051 (1.30)
K	.218 (5.54)	-

+ .0010
- .0005

1. ID to meet VSWR and contact resistance when mated with .036 (0.51 mm) dia. pin.
2. When fully engaged, the two reference planes must coincide with metal to metal contact.
3. Metric equivalents (to the nearest 0.01mm) are given for general information only.

OSM (SMA) Specifications

Requirement	MIL-C-39012 Applicable Paragraph	Detail
General		
Material	3.3	Steel corrosion resistant per ASTM-A-582 and ASTM-A-484, Type 303. Beryllium copper per ASTM B 196. PTFE Fluorocarbon per ASTM-D-1457.
Finish	3.3.1	Center contacts shall be gold plated to a min. thickness of .00005 inch in accordance with MIL-G-45204, Typ I, Grade C. All other metal parts shall be finished as to provide a connector which meets the corrosion requirements.
Design	3.4	The design shall be such that the outline shown in this catalog and the interface dimensions of MIL-STD-348A are met.
Electrical		
Insulation Resistance	3.11	The insulation resistance shall not be less than 10,000 megohms.
Corona Level	3.22	Refer to applicable military slash sheet or consult factory.
Dielectric Withstanding Voltage	3.17	Refer to applicable military slash sheet or consult factory.
RF High Potential	3.23	Refer to applicable military slash sheet or consult factory.
Contact Resistance	3.16	Refer to applicable military slash sheet or consult factory.
VSWR	3.14	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
RF Leakage	3.26	Refer to applicable military slash sheet or consult factory.
Insertion Loss	3.27	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
Mechanical		
Force to Engage	3.5.1	The torque required to engage and disengage shall not exceed 2 in.-lbs. The longitudinal force is not applicable.
Coupling Nut Retention	3.25	60 lbs. min. Applicable for plug connectors only.
Coupling Proof Torque	3.6	15 in.-lbs. min. Applicable for plug connectors only.
Cable Retention	3.24	Refer to applicable military slash sheet or consult factory.
Mating Characteristics	3.7	Applicable to jack connectors only. Reference MIL-STD-348A for dimensions; oversize test pin .0375 min. dia., .030-.045 deep, insertion force 3 lbs. max. with .0370 min. dia. pin, withdrawal force 1 oz. min. with .0355 max. dia. pin.
Connector Durability	3.15	The connector to be tested and its mating connector shall be subjected to 500 insertion and withdrawal cycles at 12 cycles per minute max. The connector shall show no evidence of mechanical failure and shall meet the mating characteristic requirements.
Recommended Mating Torque	—	7 to 10 in.-lbs.
Environmental		
Vibration	3.18	Specification MIL-STD-202, method 204, test condition D.
Shock	3.19	Specification MIL-STD-202, method 213, test condition I.
Thermal Shock	3.20	Refer to applicable military slash sheet or consult factory.
Corrosion (Salt Spray)	3.13	Specification MIL-STD-202, method 101, test condition B.
Moisture Resistance	3.21	Specification MIL-STD-202, method 106. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes of removal from humidity.

Connector Type	Cable	Frequency Max. (GHz)	VSWR x (GHz)	Contact Resistance (milliohms max.)		Insulation Resistance (megohms min.)	Dielectric Withstanding Voltage (Volts RMS)	Corona Extinction Voltage at 70,000 FL (V RMS min.)	RF Transmission Loss	RF High Potential at 5 MHz (V RMS)	RF Leakage (dB min.)
				Center Contact	Outer Contact						
Straight Cable Plug without Contact 2001 Series	RG-402 (.141)	Note 1	1.02 + .005	N/A	2.0	10,000	N/A	250	N/A	670	-(90-fGHz)
Straight Cable Plugs & Jacks Solder Attachment 2001, 2002, 2004, 2006, 2031, 2032, 2034 Series	RG-405 (.085)	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
	RG-402 (.141)	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	.03 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	.141 Microporous	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	.03 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	RG-401 (.250)	18.0	1.07 + .007	2.0	2.0	10,000	1500	375	.03 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
Straight Cable Plugs & Jacks Solder Clamp Attachment 2001, 2002, 2004, 2006 Series	RG-55, 58, 141, 142, 223, 303, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-405 (.085)	12.4	1.10 + .015	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
Straight Cable Plugs & Jacks Clamp Attachment 2001, 2002, 2004, 2006 Series	RG-402 (.141)	12.4	1.07 + .01	2.0	2.0	10,000	1500	375	.03 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	RG-55, 58, 141, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
Straight Cable Plugs & Jacks Crimp Attachment 2031, 2032, 2034, 2036 Series	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	-(60-fGHz)
	RG-55, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-58, 141, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	-(60-fGHz)
Straight Cable Plugs & Jacks Compression Clamp Attachment 2001, 2002 Series	RG-178, 196	Note 1	1.2 + .02	2.0	2.0	10,000	500	125	.06 $\sqrt{f}$ (GHz)	335	-(60-fGHz)
	RG-401 (.250)	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 $\sqrt{f}$ (GHz)	1000	-70 dB min.
	.250 Microporous	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 $\sqrt{f}$ (GHz)	1000	-70 dB min.
	.250 3 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 $\sqrt{f}$ (GHz)	1000	-70 dB min.
	.250 5 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 $\sqrt{f}$ (GHz)	1000	-70 dB min.
Right Angle Cable Plugs Solder Attachment 2007, 2037 Series	RG-405 (.085)	12.4	1.18 + .015	2.0	2.0	10,000	1000	250	.04 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
	RG-405 (.085)	18.0	1.18 + .015	2.0	2.0	10,000	1000	250	.04 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
	RG-402 (.141)	12.4	1.15 + .015	2.0	2.0	10,000	1500	325	.04 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	RG-402 (.141)	18.0	1.10 + .010	2.0	2.0	10,000	1500	250	.05 $\sqrt{f}$ (GHz)	1000	-(90-fGHz)
	RG-55, 58, 141, 142, 223, 303, 400	Note 1	1.15 + .01	2.0	2.0	10,000	1000	250	.07 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
Right Angle Cable Plugs Crimp Attachment 2037 Series	RG-174, 188, 316	Note 1	1.15 + .02	2.0	2.0	10,000	750	190	.07 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
	RG-55, 142, 223, 400	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	.07 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-58, 141, 303	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	.07 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-174, 188, 316	Note 1	1.18 + .02	2.0	2.0	10,000	750	190	.07 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	-(60-fGHz)
Right Angle Cable Plugs Clamp Attachment 2007 Series	RG-178, 196	Note 1	1.25 + .025	2.0	2.0	10,000	500	125	.07 $\sqrt{f}$ (GHz)	335	-(60-fGHz)
	RG-55, 58, 141, 142, 223, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.08 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.08 $\sqrt{f}$ (GHz)	500	-(60-fGHz)
Flange Mount Plugs & Jacks Panel or Bulkhead Mount 2052, 2051 Series	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	-(60-fGHz)
	Non-Captured	18.0	1.03 + .004	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(100-fGHz)
Bulkhead Feedthrough Jacks 2056, 2058 Series	Epoxy Captured	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
	Mechanical Capture	18.0	1.04 + .004	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(100-fGHz)
	Epoxy Captured	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	.04 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
Right Angle Flange Mount Jacks 2054 Series	Mechanical Capture	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	.04 $\sqrt{f}$ (GHz)	670	-(100-fGHz)
	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	.08 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
Printed Circuit Board Mount Straight Terminal 2062 Series	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	.08 $\sqrt{f}$ (GHz)	670	-(90-fGHz)
Right Angle Printed Circuit 2064 Series	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
End Launch Stripline Circuit 2070, 2071 Series	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
Surface Launch Stripline Circuit 2066, 2067 Series	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	.08 $\sqrt{f}$ (GHz)	670	-(60-fGHz)
Right Angle Surface Launch Stripline Circuit 2068 Series	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	.08 $\sqrt{f}$ (GHz)	670	-(60-fGHz)

Note 1: Maximum operating frequency of cable per MIL-C-17.

2: Specifications do not apply to hermetic or compression crimp connectors.