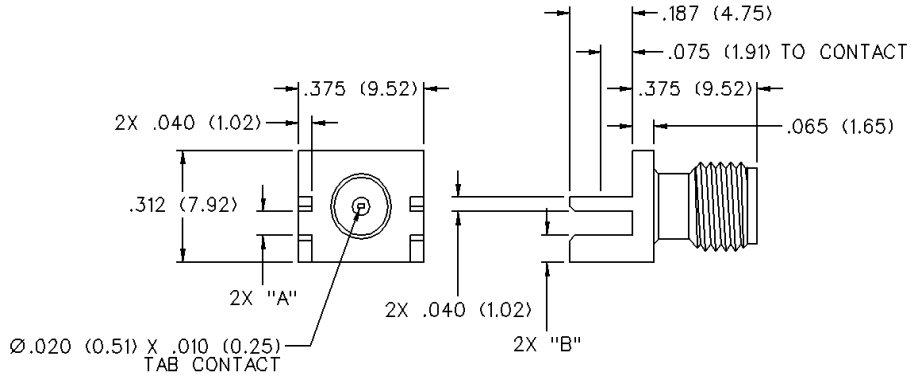
SMA Non-Magnetic RF Connectors

PC Mount

INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

End Launch Jack Receptacle - Tab Contact



VSWR & FREQ. RANGE	BOARD THICKNESS	GOLD PLATED	"A"	"B"
VSWR: N/A 0-18 GHz	.062 (1.57)	142-9701-811	.068 (1.73)	.083 (2.11)

SPECIFICATIONS

ELECTRICAL RATINGS

Impedance: 50 ohms

Frequency Range: Flexible cable connectors ..... 0-12.4 GHz
Uncabled receptacles ..... 0-18.0 GHz

VSWR: (f = GHz)	Straight Cabled Connectors	RA Cabled Connectors
RG-316	1.15 + .02f	1.15 + .03f
RG-58	1.15 + .01f	1.15 + .02f
Uncabled receptacles		N/A

Working Voltage: (Vrms maximum)

Connectors for Cable Type	Sea Level	70K Feet
RG-316	250	65
RG-58, uncabled receptacles	335	85

Dielectric Withstanding Voltage: (VRMS minimum at sea level)
Connectors for RG-316 750
Connectors for RG-58, uncabled receptacles 1000

Corona Level: (Volts minimum at 70,000 feet)=
Connectors for RG-316 190
Connectors for RG-58, uncabled receptacles 250

Insertion Loss: (dB maximum)
Straight flexible cable connectors ..... $0.06\sqrt{f\ (GHz)}$, tested at 6 GHz
Right angle flexible cable connectors ..... $0.15\sqrt{f\ (GHz)}$, tested at 6 GHz
Uncabled receptacles ..... N/A

Insulation Resistance: 5000 megohms minimum

Contact Resistance: (milliohms maximum)

	Initial	After Environmental
Center contact (straight cabled connectors, uncabled receptacles)	3.0	4.0
Center contact (right angle cabled connectors)	4.0	6.0
Outer contact (all connectors)	2.0	N/A
Braid to body	0.5	N/A

RF Leakage: (dB minimum, tested at 2.5 GHz)
Flexible cable connectors ..... -60 dB
Uncabled receptacles ..... N/A

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)=
Connectors for RG-316 500
Connectors for RG-58, uncabled receptacles 670

MECHANICAL RATINGS

Engagement Design: MIL-STD-348, Series SMA
Engagement/Disengagement Force: 2 inch-pounds maximum
Mating Torque: 7 to 10 inch-pounds
Coupling Proof Torque: 15 inch-pounds minimum
Coupling Nut Retention: 60 pounds minimum
Contact Retention: 6 lbs. minimum axial force (captivated contacts)
4 inch-ounce minimum torque (uncabled receptacles)

Cable Retention:	Axial Force*(lbs)	Torque (in-oz)
Connectors for RG-316	20	N/A
Connectors for RG-58	40	N/A

*Or cable breaking strength whichever is less.

Durability: 500 cycles minimum

ENVIRONMENTAL RATINGS (Meets or exceed the applicable paragraph of MIL-C-39012)
Temperature Range: - 65°C to + 165°C
Thermal Shock: MIL-STD-202, Method 107, Condition B
Corrosion: MIL-STD-202, Method 101, Condition B
Shock: MIL-STD-202, Method 213, Condition I
Vibration: MIL-STD-202, Method 204, Condition D
Moisture Resistance: MIL-STD-202, Method 106