

## Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Bel Fuse Inc.](#)  
[142-9701-301](#)

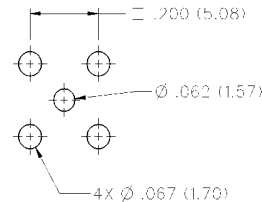
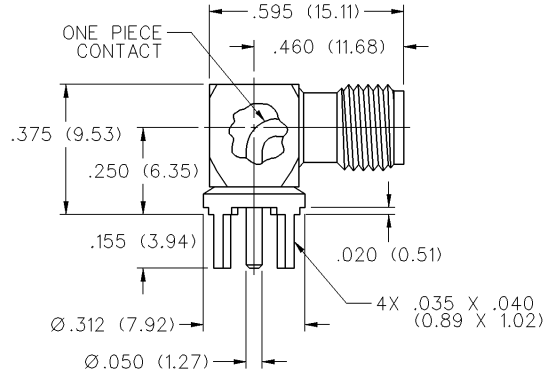
For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# SMA Non-Magnetic RF Connectors

PC Mount

INCHES (MILLIMETERS)  
 CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

## Right Angle Jack Receptacle



VSWR & FREQ. RANGE		GOLD PLATED
VSWR: N/A	0-18 GHz	142-9701-301

## 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)<sup>†</sup>

Connectors for RG-316 .....	190
Connectors for RG-58, uncabled receptacles .....	250

**Insertion Loss:** (dB maximum)

Straight flexible cable connectors .....	0.06 √f (GHz), tested at 6 GHz
Right angle flexible cable connectors .....	0.15 √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)<sup>†</sup>

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