50 Ohm SMA
2-Hole Right Angle Flange Mount Jack Receptacle - Extended Dielectric 90° Orientation

GOLD PLATED  NICKEL PLATED
142-1711-011  142-1711-016

Johnson Components™ • P.O. Box 1732 • Waseca, MN 56093-0832 • 1-800-247-8256 • Fax: 507-833-6287 • www.johnsoncomponents.com
Specifications

**ELECTRICAL RATINGS**

**Impedance**: 50 ohms

**Frequency Range**:
- Dummy loads ............................................. 0.2 GHz
- Flexible cable connectors ....................... 0.2-12.4 GHz
- Uncabled receptacles, RA semi-rigid and adapters .......... 0-18.0 GHz
- Straight semi-rigid cable connectors and field replaceable connectors ............................................. 0-26.5 GHz

**VSWR** (*f* = GHz)
- Straight Cabled Connectors
  - RG-178 cable ........................................ 1.20 + .02f
  - RG-316, LMR-100 cable ....................... 1.15 + .02f
  - RG-58, LMR-195 cable ....................... 1.15 + .01f
  - RG-142 cable ........................................ 1.15 + .01f
  - LMR-200, LMR-240 cable ................ 1.10 + .03f
  - 0.086 semi-rigid ................................ 1.07 + .008f
  - 0.141 semi-rigid (w/contact) .......... 1.05 + .008f
  - 0.141 semi-rigid (w/o contact) .... 1.035 + .005f
- Right Angle Cabled Connectors
  - Jack-bulkhead jack adapter and plug-plug adapter .......... 1.05 + .01f
  - Jack-jack adapter and plug-jack adapter ............ 1.15 + .005f
- Uncabled receptacles, dummy loads ............................................. N/A
- Field replaceable (see page 59) ............................................. N/A

**Working Voltage** (*Vrms maximum*)
- Straight semi-rigid cable connectors ................ 0.03 f (GHz), tested at 16 GHz
- Straight low loss flexible cable connectors .......... 0.05 f (GHz), tested at 10 GHz
- Right Angle low loss flexible cable connectors .......... 0.06 f (GHz), tested at 1 GHz
- Uncabled receptacles, field replaceable, dummy loads ............. N/A

**Dielectric Withstanding Voltage** (*VRMS minimum at sea level*)
- Connectors for RG-178 .......................... 170
- Connectors for RG-316, LMR-100, 195, 200 .......... 250
- Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, uncabled receptacles, .141 semi-rigid w/o contact ... 335
- Dummy loads ............................................. N/A

**Corona Level** (*Volts minimum at 70,000 feet*)
- Connectors for RG-178 .......................... 125
- Connectors for RG-316, LMR-100, 195, 200 .......... 190
- Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, uncabled receptacles, .141 semi-rigid w/o contact ... 250
- Connectors for .141 semi-rigid w/o contact and adapters .......... 375
- Dummy loads ............................................. N/A

**Insertion Loss** (*dB maximum*)
- Straight flexible cable connectors and adapters .................. 0.06 f (GHz), tested at 6 GHz
- Right angle flexible cable connectors ....................... 0.15 f (GHz), tested at 6 GHz
- Straight semi-rigid cable connectors with contact .... 0.05 f (GHz), tested at 10 GHz
- Right angle semi-rigid cable connectors ....................... 0.03 f (GHz), tested at 16 GHz
- Straight low loss flexible cable connectors .......... 0.06 f (GHz), tested at 1 GHz
- Right Angle low loss flexible cable connectors .......... 0.15 f (GHz), tested at 1 GHz
- Uncabled receptacles, field replaceable, dummy loads ............. N/A

**Insulation Resistance**: 5000 megohms minimum

**RF Leakage**: (dB minimum, tested at 2.5 GHz)
- Flexible cable connectors, adapters and .141 semi-rigid connectors w/o contact ............................................. -60 dB
- Field replaceable w/o EMI gasket .............................. -70 dB
- .086 semi-rigid connectors and .141 semi-rigid connectors with contact, and field replaceable with EMI Gasket .......... -90 dB
- Two-way adapters .......................................... -90 dB
- Uncabled receptacles, dummy loads ............................................. N/A

**RF High Potential Withstanding Voltage**: (Volts minimum, tested at 4 and 7 MHz)
- Connectors for RG-178 .................................. 335
- Connectors for RG-316, LMR-100, 195, 200 ............. 500
- Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, .141 semi-rigid cable w/o contact, uncabled receptacles ..... 670
- Connectors for .141 semi-rigid with contact and adapters .......... 1000

**Power Rating (Dummy Load)**: 0.5 watt @ +25°C, derated to 0.25 watt @ +125°C

**MECHANICAL RATINGS**

**Engagement Design**: MIL-C-39012, Series SMA

**Engagement/Disengagement Force**: 2 inch-pounds maximum

**Rating Torque**: 7 to 10 inch-pounds

**Bulkhead Mounting Nut Torque**: 15 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)

**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

†Avoid user injury due to misapplication. See safety advisory definitions inside front cover.

Johnson Components™ • P.O. Box 1732 • Waseca, MN 56093-0832 • 1-800-247-8256 • Fax: 507-833-6287 • www.johnsoncomponents.com
MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626, gold plated* per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Contacts: Male - brass per QQ-B-626, gold plated per MIL-G-45204 .00003" min.  
  Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.
Nut Retention Spring: Beryllium copper per QQ-C-533. Unplated
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 or Tefzel per ASTM D 3159 or PFA 340 per ASTM
Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Crimp Sleeves: Copper per WW-T-799 or brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Mounting Hardware: Brass per QQ-B-626 or QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Seal Rings: Silicone rubber per ZZ-R-765
EMI Gaskets: Conductive silicone rubber per MIL-G-83528, Type M

* All gold plated parts include a .00005" min. nickel underplate barrier layer.

NOTES
1. ID OF CONTACT TO MEET VSWR, CONTACT RESISTANCE AND INSERTION WITHDRAWAL FORCES  
   WHEN MATED WITH DIA .0355-.0370 MALE PIN.