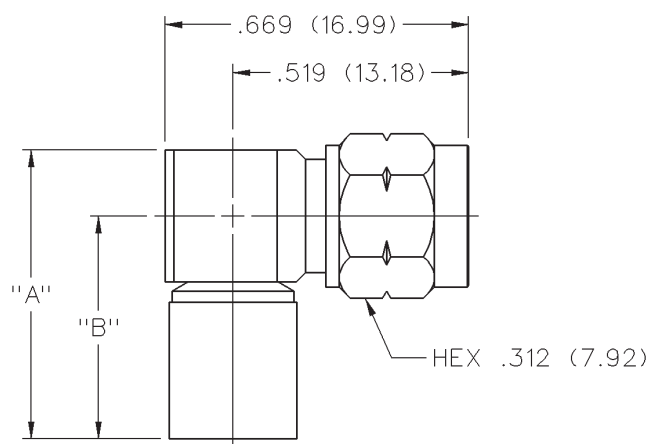


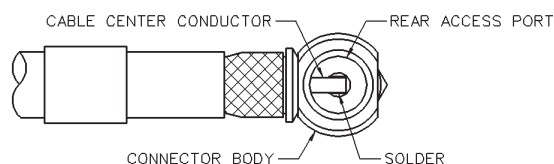
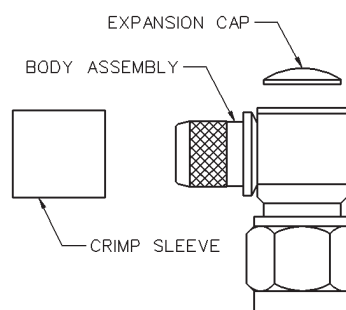
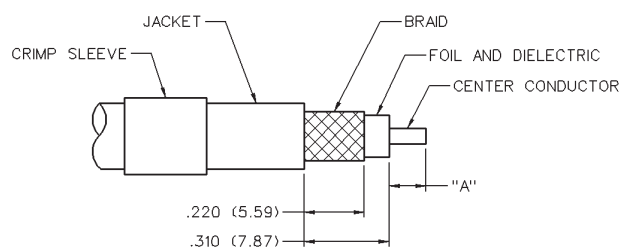
# SMA 50 Ohm - Reverse Thread Right Angle Crimp Type Plug - Captivated Contact Low Loss Cable



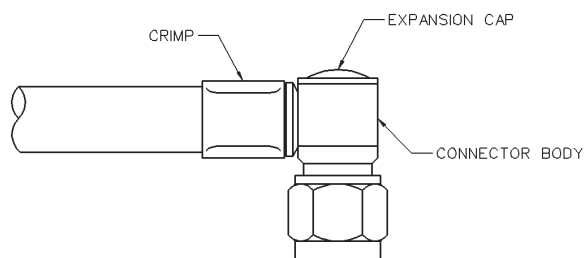
INCHES (MILLIMETERS)  
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



| CABLE TYPE               | VSWR & FREQ. RANGE           | GOLD PLATED  | NICKEL PLATED | "A"          | "B"          |
|--------------------------|------------------------------|--------------|---------------|--------------|--------------|
| LMR-240, HPF-240, RF-240 | 1.10 + .06f (GHz) 0-12.4 GHz | 142-5435-101 | 142-5435-106  | .635 (16.13) | .490 (12.45) |



| CABLE GROUP | PART NUMBER  | CRIMP HEX   |
|-------------|--------------|-------------|
| LMR-240     | 142-5435-101 | .240 (6.10) |
|             | 142-5435-106 | .240 (6.10) |



1. Identify connector parts. (3 piece parts)
2. Strip cable to dimensions shown. Do not nick braid, foil or center conductor. Cut foil flush with dielectric, do not remove foil. Make sure that dielectric is clean and free from all particles. Tin center conductor, keeping solder amount to a minimum. Slide crimp sleeve onto jacket of cable.
3. Flare braid and slide body assembly over foil and dielectric, then under braid. Make sure cable center conductor is contained within connector contact, but do not allow foil and dielectric to enter body access port. Solder center conductor to contact through the rear access port. Use a minimum amount of solder for a full fillet joint. .020 (0.51) Diameter solder is recommended.
4. Arrange braid uniformly around crimp stem. Slide crimp sleeve forward and crimp using Johnson Components™ hand crimp tool 141-0000-913 and recommended crimp die hex. Place expansion cap in access port and seat with recommended Diameter flat punch.

# SMA Reverse Thread - 50 Ohm

## Specifications



INCHES (MILLIMETERS)  
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

### ELECTRICAL RATINGS

**Impedance:** 50 ohms

#### Frequency Range:

|                           |            |
|---------------------------|------------|
| Flexible cable connectors | 0-12.4 GHz |
| Uncabled receptacles      | 0-18.0 GHz |

#### VSWR: (f = GHz)

|                        | Straight<br>Cabled Connectors | Right Angle<br>Cabled Connectors |
|------------------------|-------------------------------|----------------------------------|
| RG-316, LMR-100 cable  | 1.15 + .02f                   | 1.15 + .03f                      |
| RG-58, LMR-195 cable   | 1.15 + .01f                   | 1.15 + .02f                      |
| RG-142 cable           | 1.15 + .01f                   | 1.15 + .02f                      |
| LMR-200, LMR-240 cable | 1.10 + .03f                   | 1.10 + .06f                      |
| Uncabled receptacles   | N/A                           |                                  |

#### Working Voltage: (Vrms maximum)<sup>†</sup>

| Connectors for Cable Type                    | Sea Level | 70K Feet |
|----------------------------------------------|-----------|----------|
| RG-316; LMR-100, 195, 200                    | 250       | 65       |
| RG-58, RG-142, LMR-240, uncabled receptacles | 335       | 8        |

#### Dielectric Withstanding Voltage: (VRMS minimum at sea level)<sup>†</sup>

|                                                             |      |
|-------------------------------------------------------------|------|
| Connectors for RG-316; LMR-100, 195, 200                    | 750  |
| Connectors for RG-58, RG-142, LMR-240, uncabled receptacles | 1000 |

#### Corona Level: (Volts minimum at 70,000 feet)<sup>†</sup>

|                                                             |     |
|-------------------------------------------------------------|-----|
| Connectors for RG-316, LMR-100, 195, 200                    | 190 |
| Connectors for RG-58, RG-142, LMR-240, uncabled receptacles | 250 |

#### Insertion Loss: (dB maximum)

|                                                |                                       |
|------------------------------------------------|---------------------------------------|
| Straight flexible cable connectors             | .06 $\sqrt{f}$ (GHz), tested at 6 GHz |
| Right angle flexible cable connectors          | .15 $\sqrt{f}$ (GHz), tested at 6 GHz |
| Low loss flexible straight cable connectors    | .06 $\sqrt{f}$ (GHz), tested at 1 GHz |
| Low loss flexible right angle cable connectors | .15 $\sqrt{f}$ (GHz), tested at 1 GHz |
| Uncabled receptacles, field replaceable        | N/A                                   |

#### Insulation Resistance: 5000 megohms minimum

#### Contact Resistance: (milliohms maximum)

|                                                                      | Initial | After<br>Environmental |
|----------------------------------------------------------------------|---------|------------------------|
| Center contact (straight cabled connectors and 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 (gold plated connectors)                               | 0.5     | N/A                    |
| Braid to body (nickel plated connectors)                             | 5.0     | N/A                    |

#### RF Leakage: (dB minimum, tested at 2.5 GHz)

|                                   |        |
|-----------------------------------|--------|
| Flexible cable connectors         | -60 dB |
| Uncabled receptacles and adapters | N/A    |

#### RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)<sup>†</sup>

|                                                             |     |
|-------------------------------------------------------------|-----|
| Connectors for RG-316; LMR-100, 195, 200                    | 500 |
| Connectors for RG-58, RG-142, LMR-240, uncabled receptacles | 670 |

### MECHANICAL RATINGS

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

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

#### Mating 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)

| Cable Retention:               | Axial Force*<br>(pounds) | Torque<br>(in-oz) |
|--------------------------------|--------------------------|-------------------|
| Connectors for RG-316, LMR-100 | 20                       | N/A               |
| Connectors for LMR-195, 200    | 30                       | N/A               |
| Connectors for RG-58; LMR-240  | 40                       | N/A               |
| Connectors for RG-142          | 45                       | N/A               |

\*Or cable breaking strength whichever is less.

#### Durability: 500 cycles minimum

#### ENVIRONMENTAL RATINGS (Meets or exceeds 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

### 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

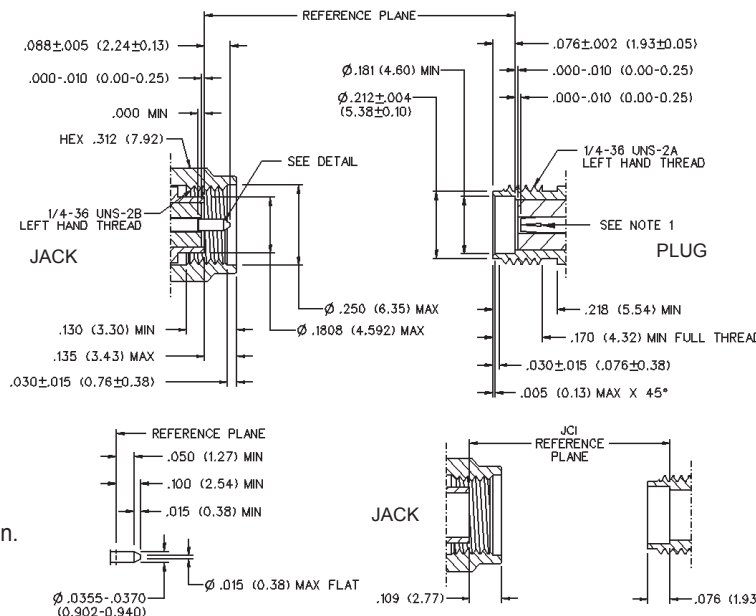
**Insulators:** PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 or Tefzel per ASTM D 3159

**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

### Mating Engagement for SMA Reverse Thread Series per FCC Rule 15 Non-Standard Interface



#### NOTES

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

<sup>†</sup>Avoid user injury due to misapplication.  
See safety advisory definitions  
inside front cover.

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