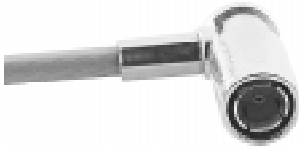


75 Ohm SMB

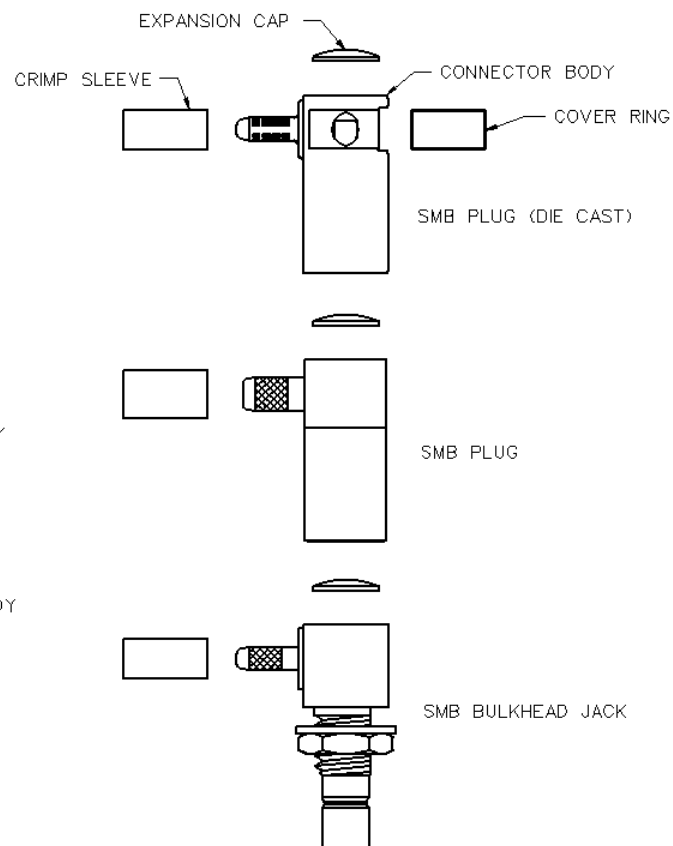
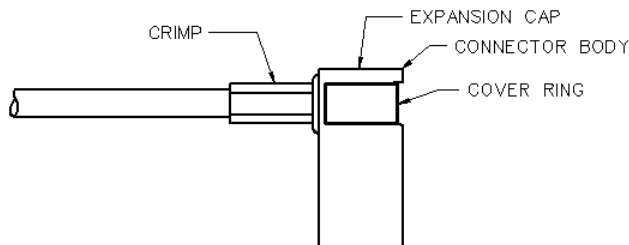
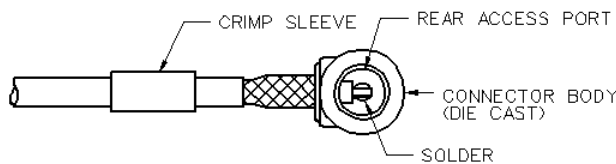
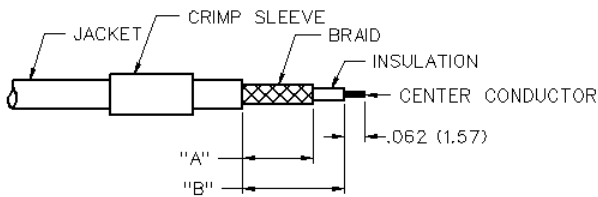
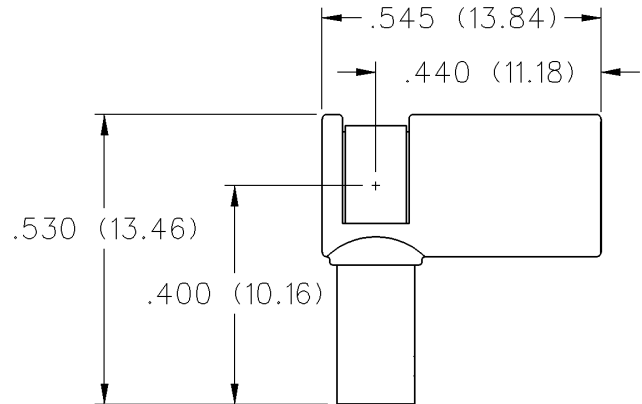
Right Angle Crimp Type Plug - Captivated Contact - Die Cast



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



| CABLE TYPE ^a | GOLD PLATED | NICKEL PLATED |
|-------------------------|--------------|---------------|
| RG-179 DS | 131-8404-111 | 131-8404-116 |
| RG-187 DS | | |



1. Identify connector parts. (4 piece parts: crimp sleeve, body assembly, expansion cap and covering ring. Die cast body only.)
2. Strip cable to dimensions shown. Do not nick braid or center conductor. A wire stripper of correct size is recommended for this step. Twist stranded center conductor into tight bundle and tin (optional). Slide crimp sleeve onto cable as shown.
3. Flare braid and slide cable into body assembly making certain that the cable insulation bottoms on center contact. Solder center conductor to contact through the rear and side access ports. Use a minimum amount of solder for a good joint. **.020 (0.51) diameter solder is recommended.**
4. Arrange braid uniformly around crimp stem of body assembly. Slide crimp sleeve over braid and crimp securely using recommended crimp tool. Place expansion cap in access port and seat with a .125 (3.17) diameter flat punch. Snap cover ring over side access port.

| CABLE GROUP | PART NUMBER | "A" | "B" | CRIMP HEX |
|-----------------|------------------|-------------|-------------|-------------|
| RG-179DS, 187DS | 131-8404-111/116 | .219 (5.56) | .312 (7.92) | .151 (3.83) |
| 316DS, 188DS | | | | |

Mini-75 Ohm SMB Connectors



Specifications

INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 75 ohms

Frequency Range: 0-2 GHz

VSWR: f = GHz

RG-179, RG-59, Belden 735A cable:

| | |
|---|-------------|
| Straight cabled connectors | 1.25 + .04f |
| Right angle cabled connectors | 1.35 + .04f |
| Adapters | 1.20 + .04f |
| Type N Adapters | 1.05 + .01f |
| Matching pad 50 ohm/75 ohm | 1.05 + .1f |
| Loads | 1.05 + .01f |
| Uncabled receptacles, opens, shorts | N/A |

Working Voltage: (Vrms maximum)†

| Connectors for Cable Type | Sea Level | 70K Feet |
|---|-----------|----------|
| RG-179, RG-59, Belden 735A, uncabled receptacles, adapters | 335 | 85 |
| Open, shorts, loads, matching pad | N/A | N/A |

Dielectric Withstanding Voltage: (VRMS minimum at sea level)†

| | |
|--|------|
| Connectors for RG-179, RG-59, Belden 735A, uncabled receptacles, adapters | 1000 |
| Open, shorts, loads, matching pad | N/A |

Corona Level: (Volts minimum at 70,000 feet)†

| | |
|--|-----|
| Connectors for RG-179, RG-59, Belden 735A | 250 |
| Uncabled receptacles, adapters, open, shorts, loads, matching pad: | N/A |

Electrical Length: Open ± 1.5° (± 5.2° relative to short)

Short ± 1.5° (± 5.2° relative to open)

Adapters ± 5.2° (N/A for Jack-Bulkhead Jack and N Types)

Insertion Loss: (dB maximum, tested at 1.5 GHz)

| | |
|--|--------------|
| Straight cable connectors | 0.30 dB |
| Right angle cable connectors | 0.60 dB |
| Matching pad | 6 dB nominal |
| Uncabled receptacles, adapters, opens, shorts, loads | N/A |

Insulation Resistance: 1000 megohms minimum

Contact Resistance: (milliohms maximum)

| | Initial | After Environmental |
|--|---------|---------------------|
| Center contact (straight cabled connectors, uncabled receptacles, opens, shorts, loads) | 6.0 | 8.0 |
| Center contact (right angle cabled connectors and adapters) | 12.0 | 16.0 |
| Outer contact (gold plated connectors) | 1.0 | 1.5 |
| Outer contact (nickel plated connectors) | 2.5 | 3.5 |
| Braid to body (gold plated connectors) | 1.0 | N/A |
| Braid to body (nickel plated connectors) | 2.5 | N/A |

RF Leakage: (dB minimum tested at 2.5 GHz)

| | |
|---|--------|
| Cable connectors | -55 dB |
| Uncabled receptacles, adapters opens, shorts, loads, matching pad | N/A |

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)†

| | |
|---|-----|
| Connectors for RG-179, RG-59, Belden 735A | 700 |
| Uncabled receptacles and adapters | 600 |
| Opens, shorts, loads, matching pad | N/A |

Power Rating: (Loads and matching pad only) 1.0 watt at +25°C derated linearly to .5 watt at +125°C

MECHANICAL RATINGS

Engagement Design: MIL-C-39012, Series SMB

Engagement/Disengagement Force: 2 pounds minimum to 14 pounds maximum axial force

Contact Retention: 4 lbs. minimum axial force (captivated contacts)

1 inch-ounce minimum torque (uncabled receptacles)

Cable Retention:

| | Axial Force* | Torque |
|--|--------------|---------|
| | (pounds) | (in-oz) |

| | | |
|--|----|-----|
| Connectors for RG-179, Belden 735A | 20 | N/A |
| Connectors for RG-59 | 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 -- Connectors and adapters

- 65°C to +125°C -- Loads, matching pad

20°C to 26°C -- Opens, shorts

Thermal Shock: MIL-STD-202, Method 107, Condition B

(N/A opens, shorts, loads, matching pad)

Corrosion: MIL-STD-202, Method 101, Condition B

(N/A opens, shorts, loads, matching pad)

Shock: MIL-STD-210, Method 213, Condition B

(N/A opens, shorts, loads, matching pad)

Vibration: MIL-STD-202, Method 204, Condition B

(N/A opens, shorts, loads, matching pad)

Temperature Coefficient: (Loads only) ± 300 ppm/°C

MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626, gold plated** per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

N type adapters stainless steel per QQ-S-763, passivated per MIL-F-14072

Contacts: Male & Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457

Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

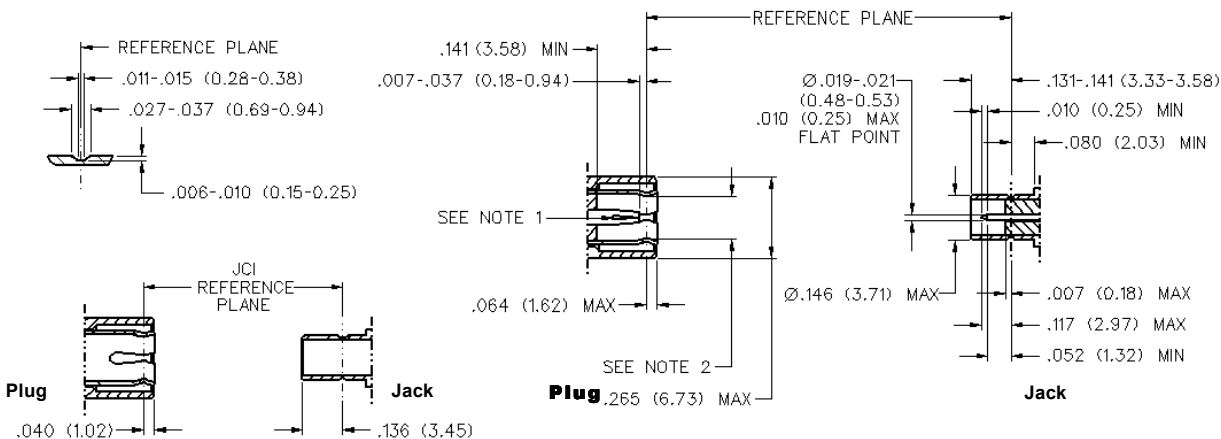
Crimp Sleeves: Copper per WW-T-799, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

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

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

MATING ENGAGEMENT FOR MINI-75 OHM SMB SERIES (INTERMATEABLE WITH STANDARD 50 OHM SMB)



NOTES:

1. ID of contact to meet VSWR, mating characteristics and connector durability when mated with a dia .019-.021 (0.48/0.53) male contact.
2. Must meet the force to engage and disengage when mated with mating part.