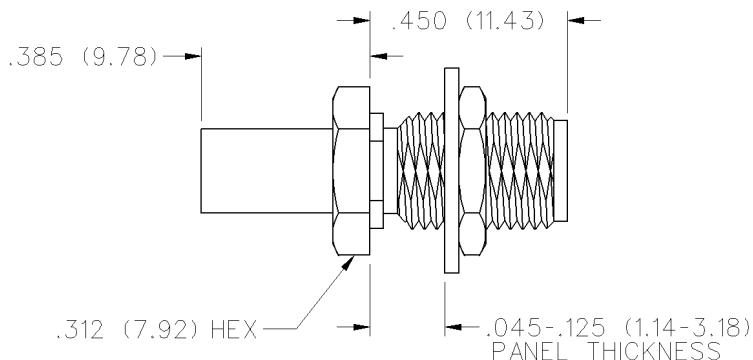


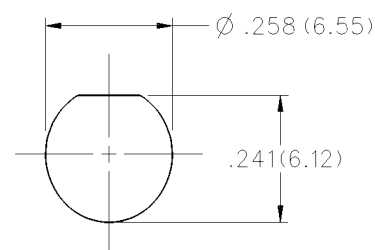
SMA 50 Ohm Reverse Polarity Straight Crimp Type Bulkhead Jack - Captivated Contact



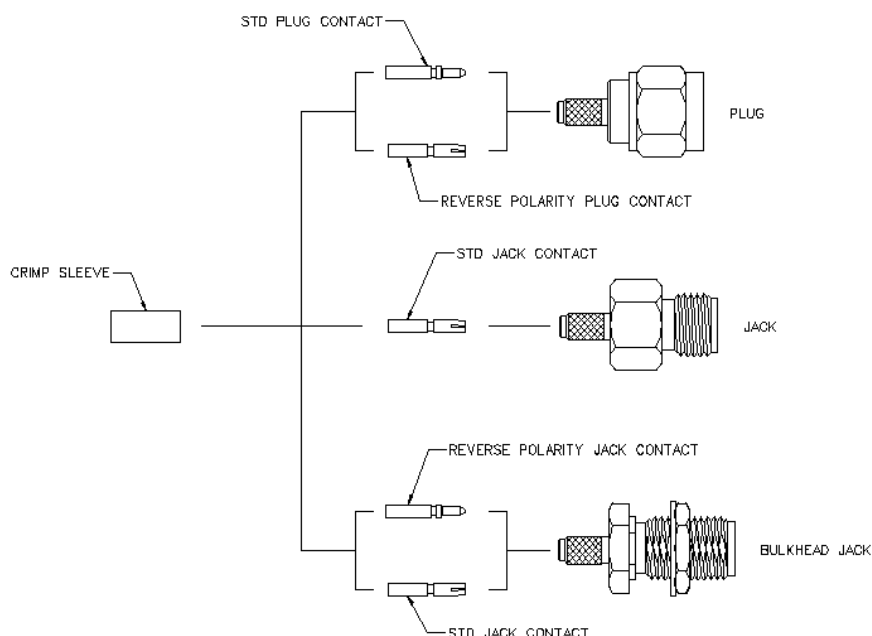
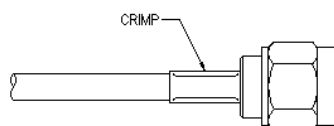
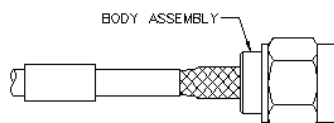
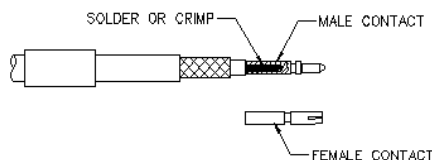
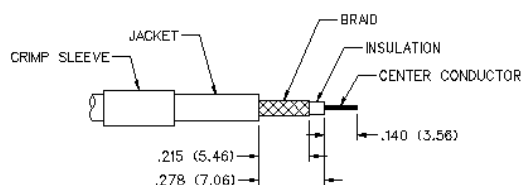
CABLE TYPE	GOLD PLATED	NICKEL PLATED
RG-58/U, 141, 303	142-4307-401	142-4307-406

1. Identify connector parts. (3 piece parts - except bulkhead)
2. Strip cable to dimensions shown. Do not nick braid or center conductor. Tin center conductor if contact will be solder attached. Do not tin center conductor if contact is to be crimp attached. When stripping LMR-100 low loss cable, remove foil back to where cable jacket is stripped. A wire stripper of correct size is recommended for this step. Slide heat shrink (as applicable) and crimp sleeve onto jacket of cable.
3. Assemble contact onto cable as shown.
Solder Attachment: Solder contact to center conductor through solder hole using .020 (0.51) diameter solder. Use a minimum amount of solder for a good joint.
Crimp Attachment: Crimp contact to center conductor using Johnson Components™ Hand Tool 144-0000-910, setting #2, with positioner 141-0000-907. Crimp location should be centered between end of contact and X-hole. Crimp attachment to solid center conductor cables is not recommended.
4. Flare braid and slide body assembly over contact and under braid. Then seat body assembly firmly onto contact. The cable may have to be held in a clamping fixture. Arrange braid uniformly around crimp stem. Slide crimp sleeve forward and crimp using recommended crimp tool. Slide heat shrink forward and shrink (as applicable).

Mounting hole layout



CABLE GROUP	PART NUMBER	CRIMP HEX
RG-58/u, 141, 303	142-4307-401/406	.213 (5.41)



SMA Reverse Polarity - 50 Ohm

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

Right Angle

Cabled Connectors

Cabled Connectors

RG-316, LMR-100 cable 1.15 + .02f

1.15 + .03f

RG-58, LMR-195 cable 1.17 + .025f

1.17 + .06f

RG-142 cable 1.17 + .02f

1.15 + .03f

LMR-200, LMR-240 cable 1.10 + .03f

1.10 + .06f

Uncabled receptacles N/A

Working Voltage: (Vrms maximum)†

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 85

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

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)†

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
connectors06 $\sqrt{f}$ (GHz), tested at 6 GHz

Right angle flexible cable
connectors 0.15 $\sqrt{f}$ (GHz), tested at 6 GHz

Low loss flexible straight
cable connectors 0.06 $\sqrt{f}$ (GHz), tested at 1 GHz

Low loss flexible right angle
cable connectors 0.15 $\sqrt{f}$ (GHz), tested at 1 GHz

Uncabled receptacles, field replaceable N/A

Insulation Resistance: 5000 megohms minimum

Contact Resistance: (milliohms maximum)

Initial

**After
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)†

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*
(pounds)

Torque
(in-oz)

Connectors for RG-316, LMR-100 20

N/A

Connectors for LMR195, 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

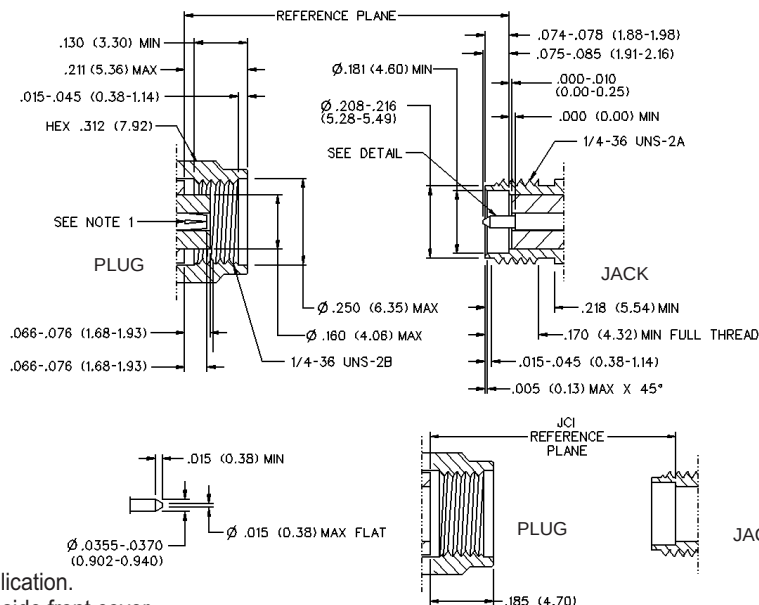
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 or Tefzel per ASTM D 3159

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 POLARITY 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.

†Avoid user injury due to misapplication.

See safety advisory definitions inside front cover.