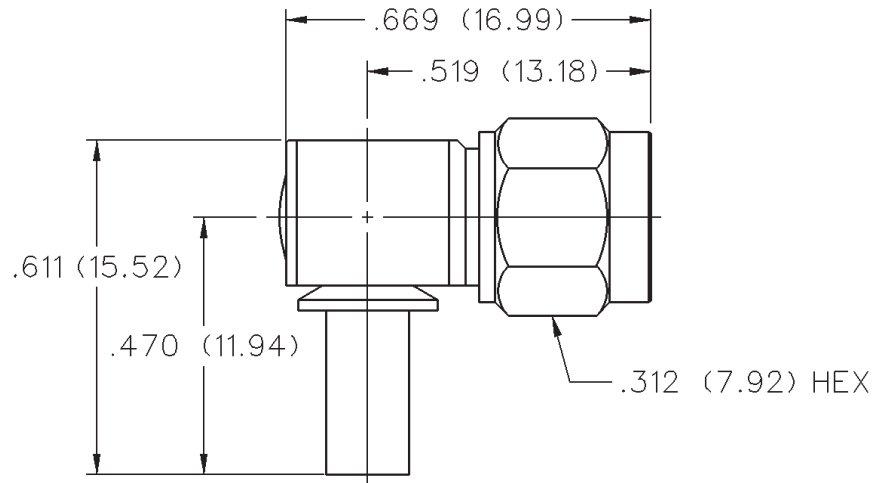
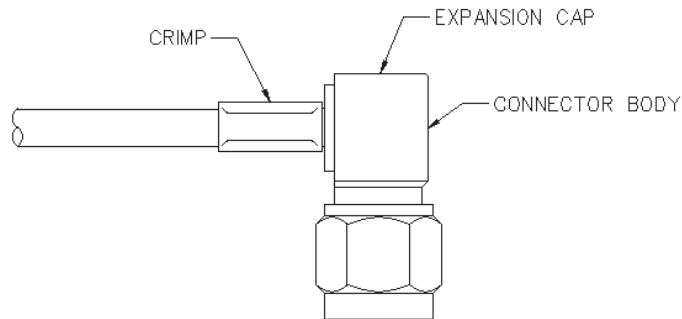
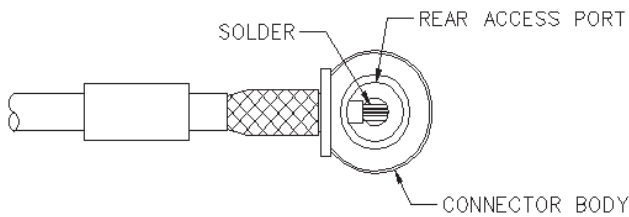
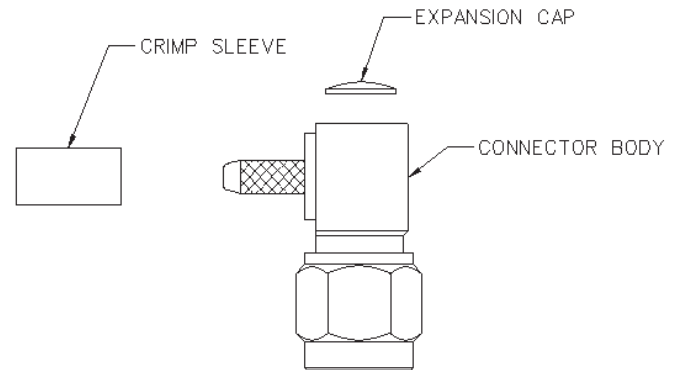
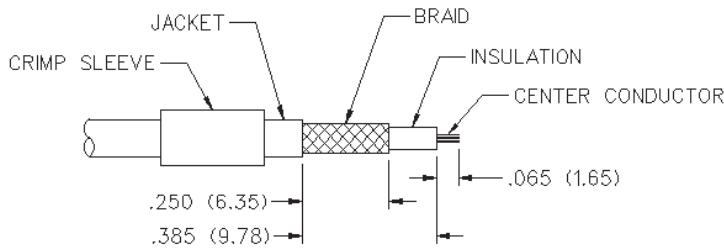


SMA 50 Ohm Right Angle Crimp Type Plug - Captivated Contact



CABLE TYPE	VSWR & FREQ. RANGE	GOLD PLATED	NICKEL PLATED
RG-188 DS, RG-316 DS	1.15 + .03 f (GHz) 0-12.4 GHz	142-0404-101	142-0404-106



CABLE GROUP	PART NUMBER	CRIMP HEX
RG-316DS, 188DS	142-0404-101	.151 (3.83)
	142-0404-106	.151 (3.83)

1. Identify connector parts. (3 piece parts)
2. Strip cable to dimensions shown. Do not nick braid or center conductor. 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. 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 making certain that the cable insulation bottoms on center contact. 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 over braid and crimp securely using recommended crimp tool. Place expansion cap in access port and seat with .187 (4.75) diameter flat punch. Shrink heat shrink tubing over crimp sleeve if applicable.

SMA - 50 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 50 ohms

Frequency Range:

Dummy loads	0-2 GHz
Flexible cable connectors	0-12.4 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	Right Angle Cabled Connectors
RG-178 cable	1.20 + .025f	1.20 + .03f
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
.086 semi-rigid	1.07 + .008f	1.18 + .015f
.141 semi-rigid (w/contact)	1.05 + .008f	1.15 + .015f
.141 semi-rigid (w/o contact)	1.035 + .005f	

Jack-bulkhead jack adapter and plug-plug adapter

Jack-jack adapter and plug-jack adapter

Uncabled receptacles, dummy loads

Field replaceable (see page 59)

Working Voltage: (Vrms maximum)

Connectors for Cable Type

Sea Level 70K Feet

RG-178

RG-316; LMR-100, 195, 200

RG-58, RG-142, LMR-240, .086 semi-rigid, uncabled receptacles, .141 semi-rigid w/o contact ...

.141 semi-rigid with contact and adapters

Dummy loads

Dielectric Withstanding Voltage: (VRMS minimum at sea level)

Connectors for RG-178

Connectors for RG-316; LMR-100, 195, 200

Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, field replaceable, uncabled receptacles

Connectors for .141 semi-rigid with contact and adapters

Connectors for .141 semi-rigid w/o contact, dummy loads

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

Connectors for RG-178

Connectors for RG-316; LMR-100, 195, 200

Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, uncabled receptacles, .141 semi-rigid w/o contact

Connectors for .141 semi-rigid with contact and adapters

Dummy loads

Insertion Loss: (dB maximum)

Straight flexible cable connectors and adapters	0.06	\sqrt{f} (GHz), tested at 6 GHz
Right angle flexible cable connectors	0.15	\sqrt{f} (GHz), tested at 6 GHz
Straight semi-rigid cable connectors with contact	0.03	\sqrt{f} (GHz), tested at 10 GHz
Right angle semi-rigid cable connectors	0.05	\sqrt{f} (GHz), tested at 10 GHz
Straight semi-rigid cable connectors w/o contact	0.03	\sqrt{f} (GHz), tested at 16 GHz
Straight low loss flexible cable connectors	0.06	\sqrt{f} (GHz), tested at 1 GHz
Right Angle low loss flexible cable connectors	0.15	\sqrt{f} (GHz), tested at 1 GHz
Uncabled receptacles, field replaceable, dummy loads		N/A

Insulation Resistance: 5000 megohms minimum

Contact Resistance: (milliohms maximum) **Initial** **After Environmental**

Center contact (straight cabled connectors and uncabled receptacles)

Center contact (right angle cabled connectors and adapters)

Field replaceable connectors

Outer contact (all connectors)

Braid to body (gold plated connectors)

Braid to body (nickel plated connectors)

*N/A where the cable center conductor is used as a contact

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

Flexible cable connectors, adapters and .141 semi-rigid connectors w/o contact

Field replaceable w/o EMI gasket

.086 semi-rigid connectors and .141 semi-rigid connectors with contact, and field replaceable with EMI Gasket

Two-way adapters

Uncabled receptacles, dummy loads

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

Connectors for RG-178

Connectors for RG-316; LMR-100, 195, 200

Connectors for RG-58, RG-142, LMR-240, .086 semi-rigid, .141 semi-rigid cable w/o contact, uncabled receptacles

Connectors for .141 semi-rigid with contact and adapters

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

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*(lbs)** **Torque (in-oz)**

Connectors for RG-178

Connectors for RG-316, LMR-100

Connectors for LMR-195, 200

Connectors for RG-58, LMR-240

Connectors for RG-142

Connectors for .086 semi-rigid

Connectors for .141 semi-rigid

*Or cable breaking strength whichever is less.

Durability: 500 cycles minimum

100 cycles minimum for .141 semi-rigid connectors w/o contact

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

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

Cinch Connectivity Solutions

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SMA - 50 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

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

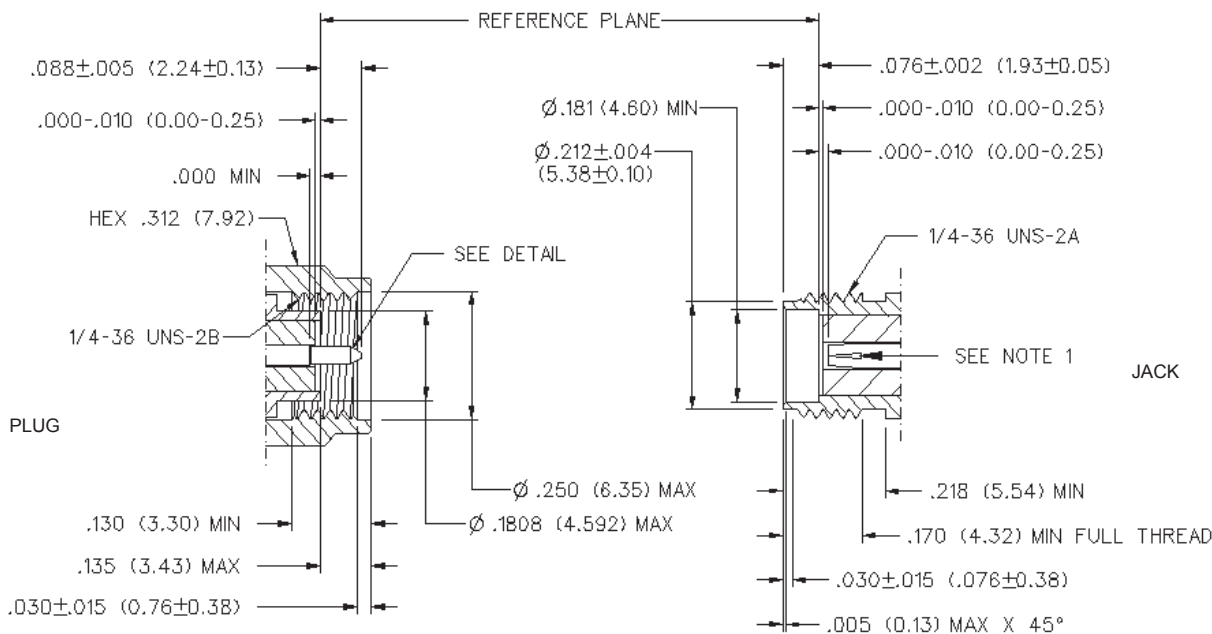
Mounting Hardware: Brass per QQ-B-626 or QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

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.

Mating Engagement for SMA Series per MIL-C-39012



NOTES

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

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