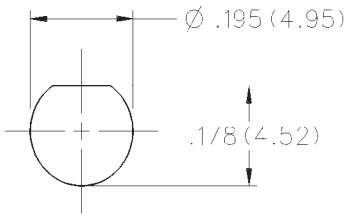
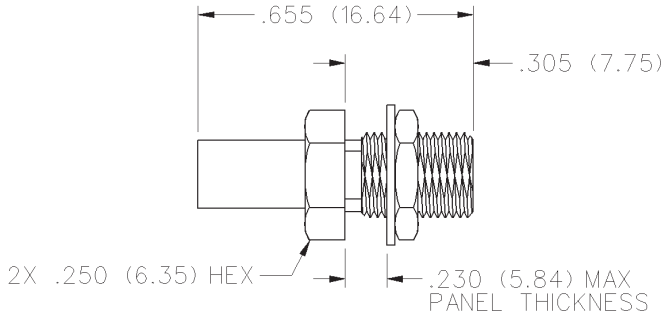
MCX Reverse Polarity Bulkhead Jack Receptacle - Solder or Crimp Contact

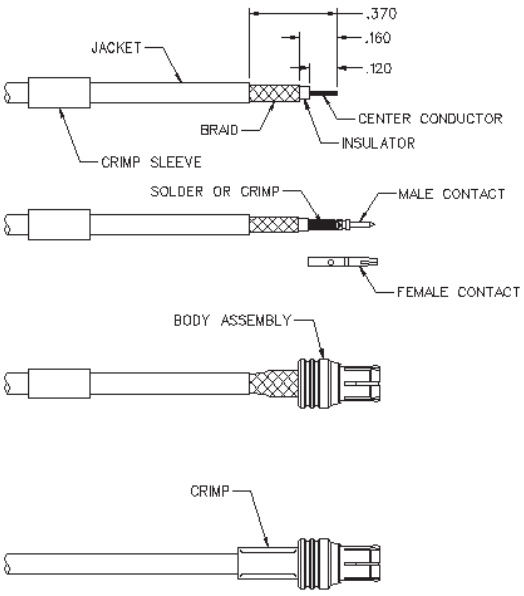
INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

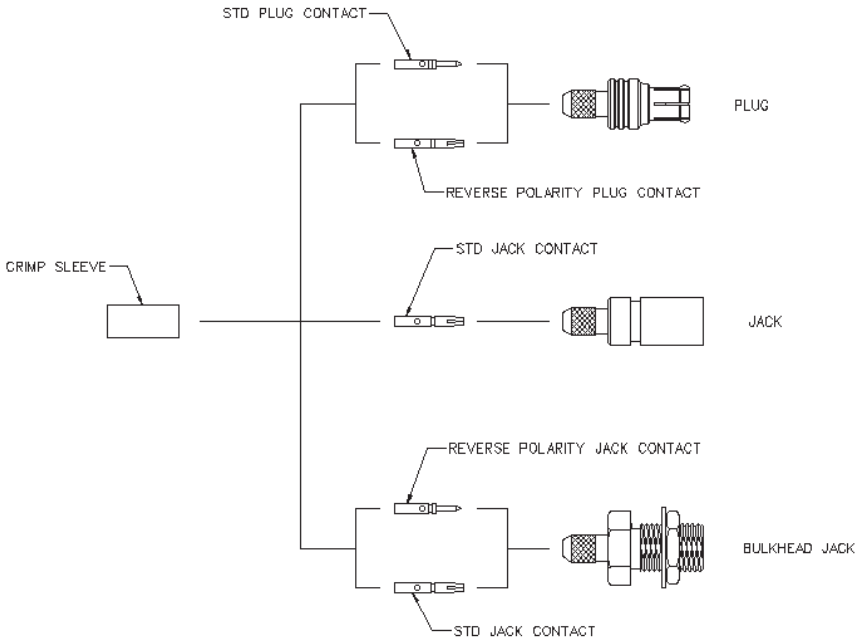


Mounting Hole Layout



CABLE TYPE	GOLD PLATED	NICKEL PLATED	CAPTIVATED CONTACT
RG-178/U, 196	133-5302-401	133-5302-406	No





CABLE GROUP	PART NUMBER	CRIMP HEX
RG-178/u, 196	133-5302-401/406	.105 (2.67)

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 is to be solder attached. Do not tin center conductor if contact is to be crimp attached. 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 of solder for a good joint.
   Crimp attachment. Crimp contact to center conductor using Johnson Components™ hand tool 140-0000-952 and die set 140-0000-953. Crimp location should be centered between end of contact and cross hole. Crimp attachment to solid center conductor cable is not recommended.
4. Flair 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).

Cinch Connectivity Solutions
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MCX Reverse Polarity - 50 Ohm

Specifications

INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 50 Ohms
Frequency Range: 0-6 GHz
VSWR: (f = GHz)

	Straight Cabled Connectors	Right Angle Cabled Connectors
RG-178 cable	1.17 + .04f	1.07 + .06f
RG-316 cable	1.13 + .04f	1.07 + .04f
Uncabled receptacles		N/A

Working Voltage: (Vrms maximum)

Connectors for Cable Type	Sea Level	70K Feet
RG-178	250	65
RG-316 uncabled receptacles	335	85

Dielectric Withstanding Voltage: (VRMS minimum at sea level)
Connectors for RG-178 750
Connectors for RG-316 uncabled receptacles 1000
Corona Level: (Volts minimum at 70,000 feet)
Connectors for RG-178 190
Connectors for RG-316 uncabled receptacles 250
Insertion Loss: (dB maximum, tested at 1 GHz)
Straight cable connectors ..... 0.1 dB
Right angle cable connectors ..... 0.2 dB
Uncabled receptacles ..... N/A
Insulation Resistance: 10000 megohms minimum
Contact Resistance: (milliohms maximum)

	Initial	After Environmental
Center contact (straight cabled connectors, uncabled receptacles)	5.0	8.0
Center contact (right angle cabled connectors)	5.0	15.0
Outer contact	1.0	1.5
Braid to body (gold plated connectors)	1.0	N/A
Braid to body (nickel plated connectors)	2.5	N/A

RF Leakage: (dB typical tested at 2.5 GHz)
Cable connectors ..... -55 dB
Uncabled receptacles ..... N/A
RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)
Connectors for RG-178 500
Connectors for RG-316 700
Uncabled receptacles 600

MECHANICAL RATINGS

Engagement Force: 5.6 pounds maximum axial force
Disengagement Force: 8 pounds maximum axial force, 1.0 pound min.
Contact Retention: 2.3 lbs. min. axial force (captivated contacts)
1 inch-ounce min. torque (uncabled receptacles)

Cable Retention:	Axial Force* (pounds)	Torque (in-oz)
Connectors for RG-178	10	N/A
Connectors for RG-316	20	N/A
Connectors for RG-316DS	25	N/A

* or cable breaking strength whichever is less.

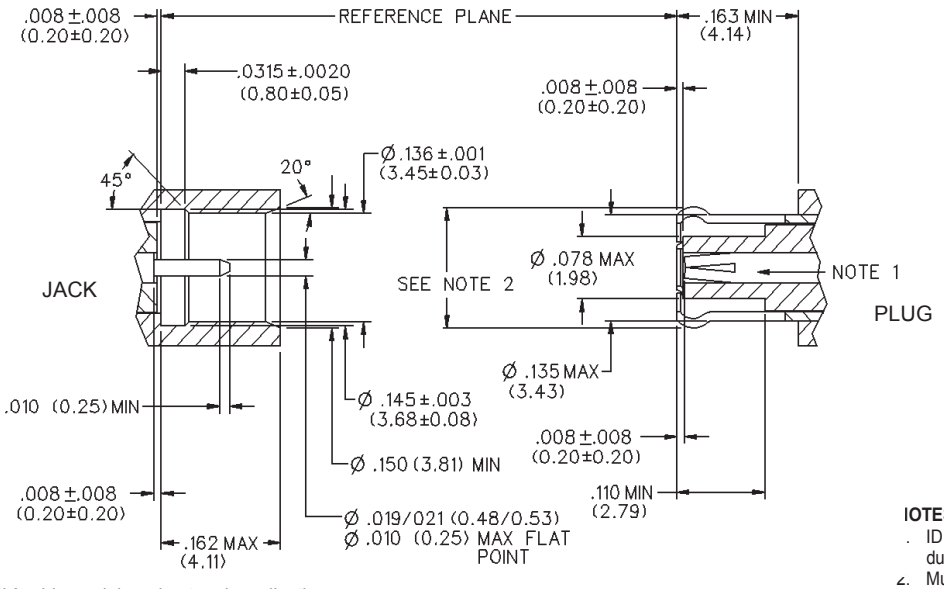
ENVIRONMENTAL RATINGS (Meets or exceed the applicable paragraph of MIL-C-39012)

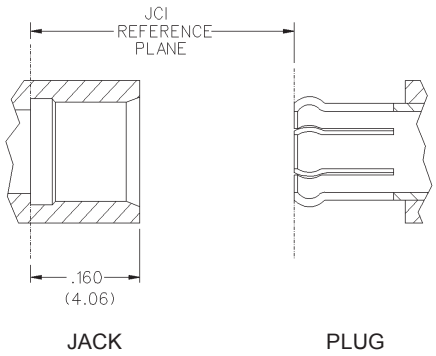
Durability: 500 cycles minimum
Temperature Range: - 65°C to + 165°C
Thermal Shock: MIL-STD-202, Method 107, Condition F
Corrosion: MIL-STD-202, Method 101, Condition B
Shock: MIL-STD-202, Method 213, Condition B
Vibration: MIL-STD-202, Method 204, Condition B
Moisture Resistance: MIL-STD-202, Method 106

MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626 or zinc per ASTM B86-71, 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.
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

MATING ENGAGEMENT FOR MCX REVERSE POLARITY SERIES PER FCC RULE 15 NON-STANDARD INTERFACE





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.

†Avoid user injury due to misapplication.
See safety advisory definitions inside front cover.
** All gold plated parts include a .00005" min. nickel underplate barrier layer.

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