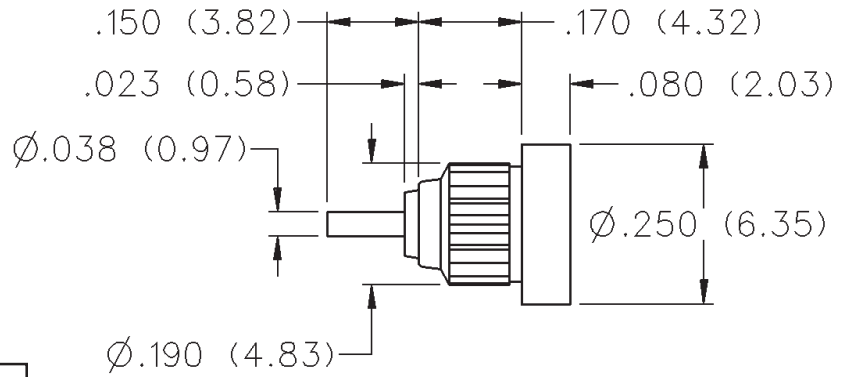


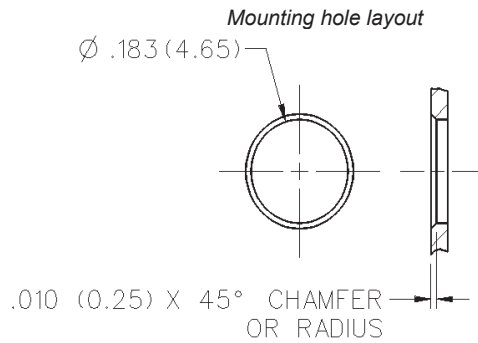
MCX 50 Ohm Front Mount Bulkhead Jack Receptacle



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



| GOLD PLATED | NICKEL PLATED | MOUNTING STYLE |
|--------------|---------------|-----------------|
| 133-3701-411 | 133-3701-416 | Press Fit Knurl |



MCX - 50 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 50 Ohms

Frequency Range: Connectors 0-6 GHz
Dummy loads 0-1 GHz

VSWR: (f = GHz) Straight Cabled Right Angle
 Connectors Cabled Connectors

RG-178 cable 1.17 + .04f 1.07 + .06f

RG-316 and .086 semi-rigid cable ... 1.13 + .04f 1.07 + .04f

Adapters 1.13 + .04f

Uncabled receptacles, Dummy loads N/A

Working Voltage: (Vrms maximum)†

Connectors for Cable Type Sea Level 70K Feet

RG-178 250 65

RG-316, .086 semi-rigid uncabled

uncabled receptacles, adapters 335 85

Dummy loads N/A

Dielectric Withstanding Voltage: (VRMS minimum at sea level)

Connectors for RG-178 750

Connectors for RG-316, .086 semi-rigid,

uncabled receptacles, adapters 1000

Dummy loads N/A

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

Connectors for RG-178 190

Connectors for RG-316, .086 semi-rigid

uncabled receptacles, adapters 250

Dummy loads N/A

Insertion Loss: (dB maximum, tested at 1 GHz)

Straight cable connectors and adapters 0.1 dB

Right angle cable connectors 0.2 dB

Uncabled receptacles, dummy loads N/A

Insulation Resistance: 10,000 megohms minimum

Contact Resistance: (milliohms maximum)

| | Initial | After Environmental |
|--|---------|---------------------|
|--|---------|---------------------|

| | | |
|--|-----|------|
| Center contact (straight cabled connectors, uncabled receptacles and adapters) | 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 and adapters, dummy loads N/A

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

Connectors for RG178 500

Connectors for RG316 and adapters 700

.086 semi-rigid 670

Uncabled receptacles 600

Dummy loads N/A

Power Rating (Dummy Load): 0.5 watt @ +25°C, derated to 0.25 watt @ +125°C

MECHANICAL RATINGS

Engagement Design: Compatible with CECC 22220, Series MCX

Engagement Force: 5.6 pounds maximum axial force

Disengagement Force: 8 pounds maximum axial force, 1 pound min.

Contact Retention: 2.3 pounds min. axial force (captivated contacts)
1 inch-ounce min. torque (uncabled receptacles)

| Cable Retention: | Axial Force* (pounds) | Torque (in-oz) |
|------------------|--------------------------|-------------------|
|------------------|--------------------------|-------------------|

| | | |
|--------------------------------------|----|-----|
| Connectors for RG178 | 10 | N/A |
| Connectors for RG316 | 20 | N/A |
| Connectors for RG316DS | 25 | N/A |
| Connectors for .086 semi-rigid | 30 | 16 |

* or cable breaking strength whichever is less.

ENVIRONMENTAL RATINGS (Meets or exceeds the applicable paragraph of MIL-C-39012)Durability: 500 cycles minimum

Temperature Range: Connectors - 65°C to + 165°C

Dummy loads - 65°C to + 125°C

Thermal Shock: MIL-STD-202, Method 107, Condition F (N/A dummy loads)

Corrosion: MIL-STD-202, Method 101, Condition B (N/A dummy loads)

Shock: MIL-STD-202, Method 213, Condition B (N/A dummy loads)

Vibration: MIL-STD-202, Method 204, Condition B (N/A dummy loads)

Moisture Resistance: MIL-STD-202, Method 106 (N/A dummy loads)

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 or bright tin plated

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

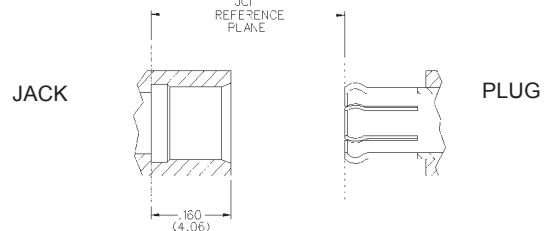
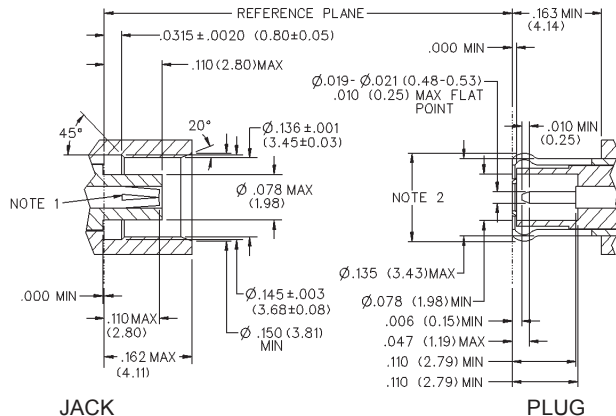
(lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min.

or nickel plated per QQ-N-290

Avoid user injury due to misapplication. See safety advisory definitions on page 2.

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

MATING ENGAGEMENT FOR MCX SERIES COMPATIBLE WITH CECC 22220



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.