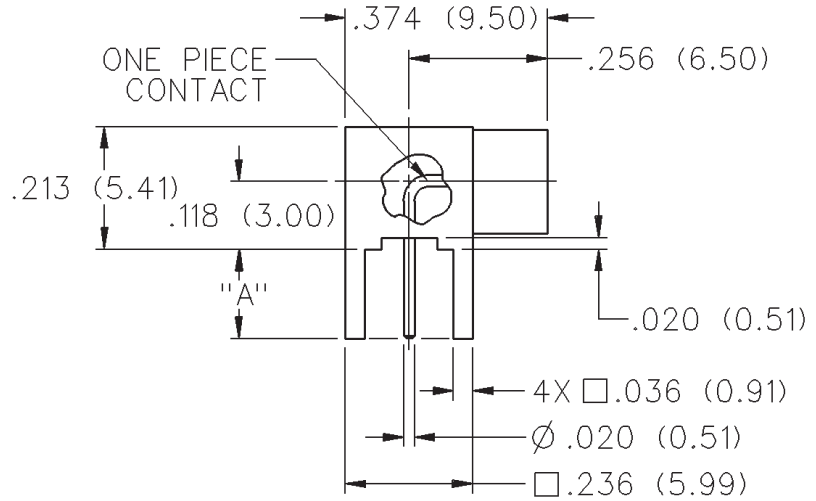
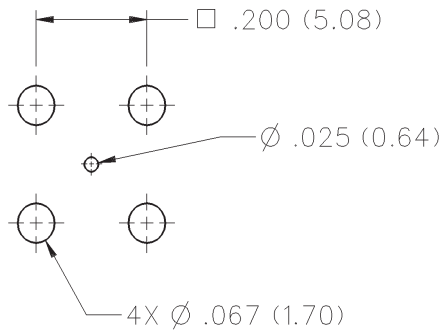


MCX 75 Ohm Right Angle Jack Receptacle



| "A" | GOLD PLATED |
|-------------|--------------|
| .155 (3.80) | 133-8701-301 |

Mounting hole layout



MCX - 75 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 75 Ohms
Frequency Range: 0-6 GHz
VSWR: (f = GHz)

| | Straight Cabled Connectors | Right Angle Cabled Connectors |
|------------------------------------|----------------------------|-------------------------------|
| RG-179 cable | 1.13 + .04f | 1.07 + .04f |
| In-series adapters | 1.07 + .03f | |
| Between series adapters, loads ... | 1.05 + .01f | |
| Matching pad | 1.05 + .05f | |
| Uncabled receptacles | | N/A |

Working Voltage: (Vrms maximum)†

| Connectors for Cable Type | Sea Level | 70K Feet |
|--------------------------------------|-----------|----------|
| RG-179 | 335 | 85 |
| Uncabled receptacles, adapters | 335 | 85 |
| Loads, matching pad | N/A | |

Dielectric Withstanding Voltage: (VRMS minimum at sea level)

| | |
|--------------------------------------|------|
| Connectors for RG-179 | 1000 |
| Uncabled receptacles, adapters | 1000 |
| Loads, matching pad | N/A |

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

| | |
|--------------------------------------|-----|
| Connectors for RG-179 | 250 |
| Uncabled receptacles, adapters | 250 |
| Loads, matching pad | N/A |

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

| | |
|--|--------|
| Straight cable connectors | 0.1 dB |
| Right angle cable connectors | 0.2 dB |
| Uncabled receptacles, adapters, matching pad | N/A |

Insulation Resistance: 10,000 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 |
| Center contact (loads, matching pads) | N/A | |
| Outer contact | 1.0 | 1.5 |
| Braid to body (gold plated connectors) | 1.0 | N/A |

RF Leakage: (dB typical tested at 2.5 GHz)

| | |
|--|----------------|
| Cable connectors | -55 dB typical |
| Uncabled receptacles, adapters, loads, matching pads | N/A |

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

| | |
|--------------------------------------|-----|
| Connectors for RG-179 | 700 |
| Uncabled receptacles, adapters | 600 |
| Loads, matching pad | N/A |

Power Rating: (Loads and matching pad only) 1.0 watt at +25°C derated linearly to 0.5 watt at +125°C

MECHANICAL RATINGS

Engagement Design: Compatible with CECC 22220, Series MCX 50 Ohm

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 RG-179 | 20 | N/A |
| Connectors for RG179 DS | 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: All connectors: - 65°C to + 165°C

Loads and matching pads: - 65°C to + 125°C

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

Temperature Coefficient: Loads and matching pad: +/- 300ppm/°C

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, gold plated** per MIL-G-45204 .00001" min. Interface spring - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

Contacts: Male - brass per QQ-B-626 or beryllium copper per QQ-C-530, 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.

Crimp Sleeves: Copper per WW-T-799, gold plated per MIL-G-45204 .00001" min.

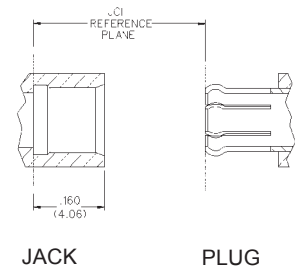
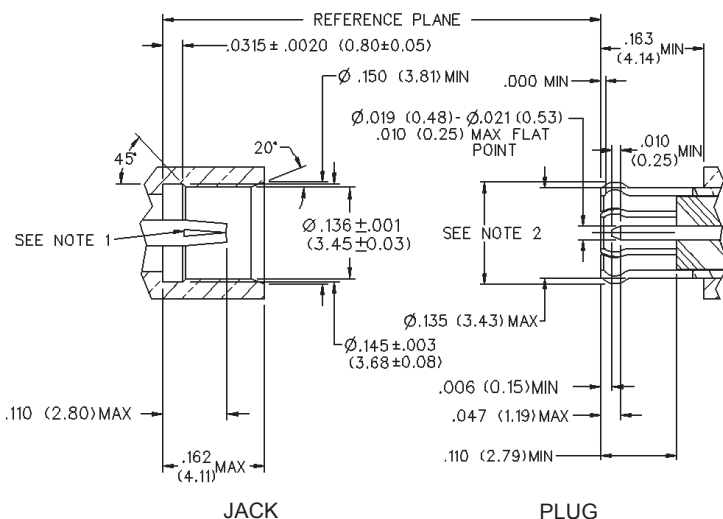
Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min.

†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.

MATING ENGAGEMENT FOR 75 OHM MCX SERIES (INTERMATEABLE WITH CECC 22220 50 OHM MCX)



NOTES

- ID of contact to meet VSWR mating characteristics and connector durability when mated with a dia. .019-.021 (0.48-0.53) male contact.
- Must meet the force to engage and disengage when mated with mating part.
- Interface shall intermate with MCX 50 Ohm interface per CECC 22220.