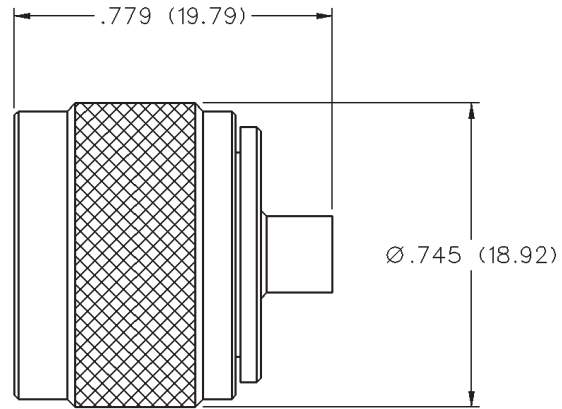


# 75 Ohm Type N Plug to 75 Ohm MCX Jack

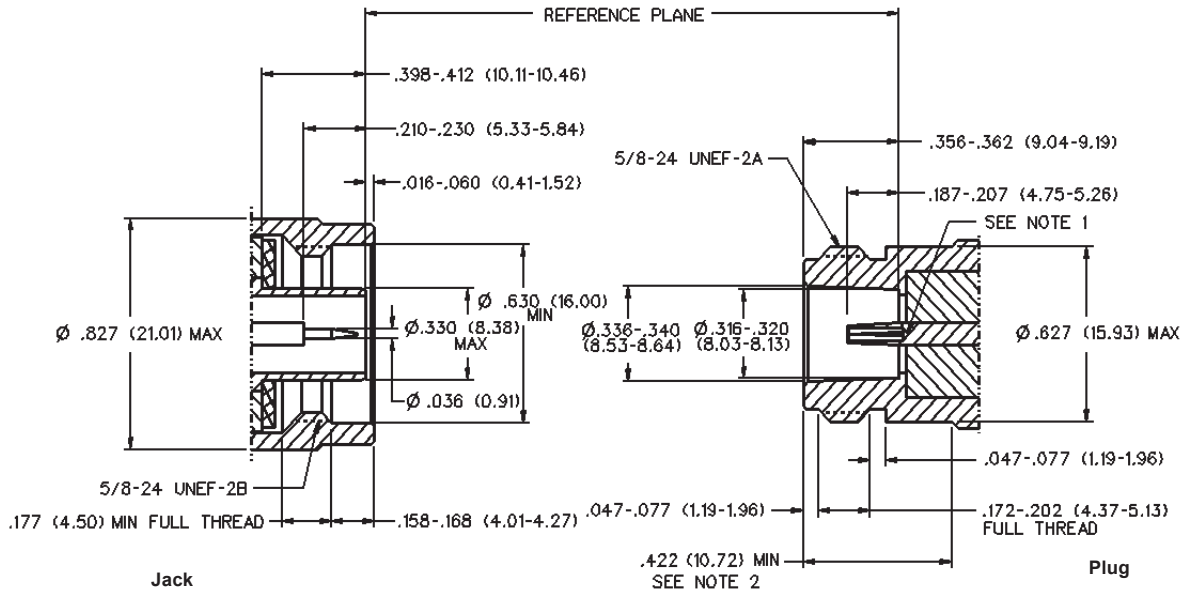


INCHES (MILLIMETERS)  
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



|                                   |
|-----------------------------------|
| <b>STAINLESS STEEL PASSIVATED</b> |
| 134-1068-011                      |

## MATING ENGAGEMENT FOR 75 OHM "N" SERIES BASED ON MIL-STD-348A "N" SERIES



**NOTES:**

1. ID of contact to meet VSWR, mating characteristics and connector durability when mated with a dia .036/.037 (0.91/0.94) male contact.
2. Clearance for mating connector coupling nut.

# 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.

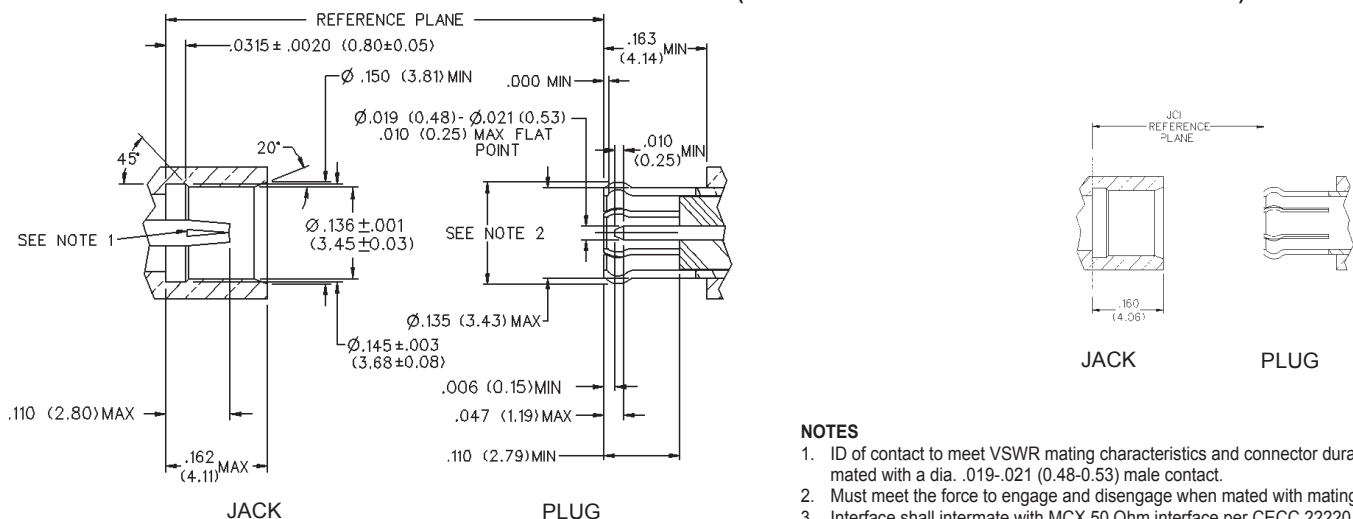
**Mounting Hardware:** Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min.

†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.