

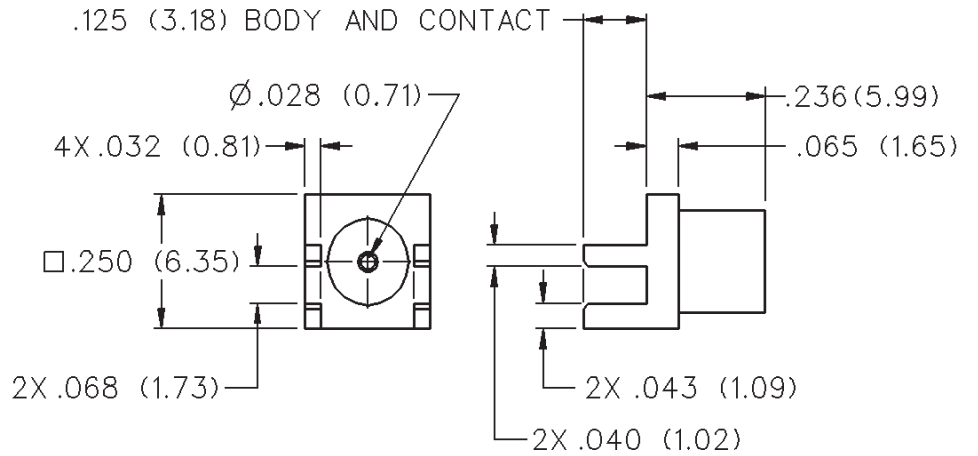
MCX 75 Ohm End Launch Jack Receptacle



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



GOLD PLATED
133-8701-801



MCX - 75 Ohm Connectors

Specifications



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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.

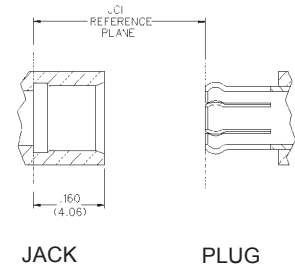
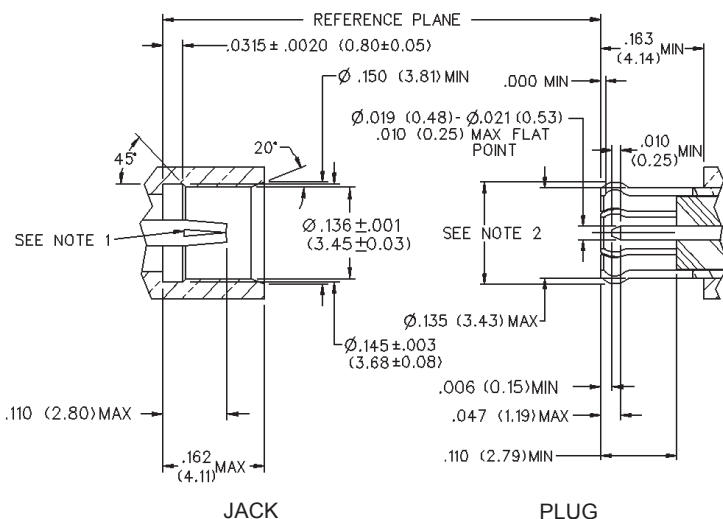
Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min.

†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.