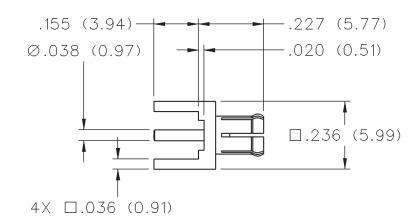
MCX 50 Ohm Straight Plug Receptacle - Low Profile



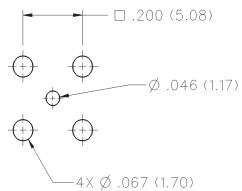
INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



GOLD PLATED	NICKEL PLATED
133-3801-211	133-3801-216



Mounting hole layout



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 <u>Connectors Cabled Connectors</u>
<u>Connectors</u> <u>Cabled Connectors</u>
RG-178 cable 1.17 + .04f 1.07 + .06f
RG-178 cable
Adapters
Uncabled receptacles, Dummy loads N/A
Working Voltage: (Vrms maximum)†
Connectors for Cable Type Sea Level 70K Feet RG-178 250 65
RG-178 250 65
RG-316, .086 semi-rigid uncabled
uncabled receptacles, adapters 335 85
Dummy loads
Dielectric Withstanding Voltage: (VRMS minimum at sea level)
Connectors for RG-178
Connectors for RG-316, .086 semi-rigid,
uncabled receptacles, adapters
Dummy loads
Corona Level: (Volts minimum at 70,000 feet)
Connectors for RG-178
Connectors for RG-316, .086 semi-rigid
uncabled receptacles, adapters
Dummy loadsN/A
Insertion Loss: (dB maximum, tested at 1 GHz)
Straight cable connectors and adapters 0.1 dB
Right angle cable connectors
Uncabled receptacles, dummy loads N/A
Insulation Resistance: 10,000 megohms minimum
Contact Resistance: (milliohms maximum) After
<u>Initial</u> 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
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 connectors55 dB
Uncabled receptacles and adapters, dummy loads N/A
r

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.

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

Connectors for RG178	500
Connectors for RG316 and adapters	700
.086 semi-rigid	
Uncabled receptacles	
Dummy loads	

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:	Axiai Force	iorque
	(pounds)	<u>(in-oz)</u>
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	er is less	

ENVIRONMENTAL RATINGS (Meets or exceed 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.

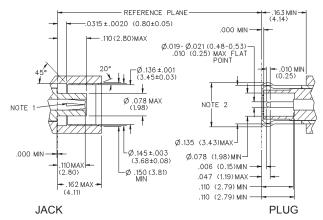
Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

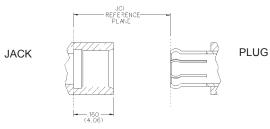
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

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

MATING ENGAGEMENT FOR MCX SERIES COMPATIBLE WITH CECC 22220





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.

Mouser Electronics

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Cinch Connectivity Solutions: 133-3801-211