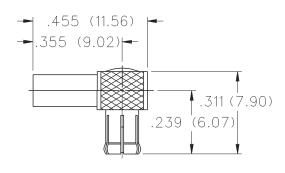
# MCX 50 Ohm Right Angle Crimp Type Plug -Captivated Contact



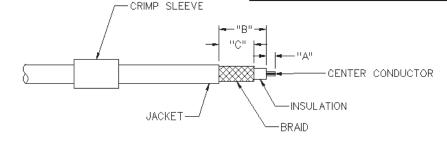
INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

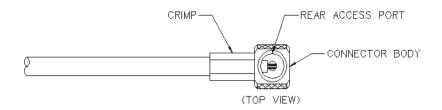


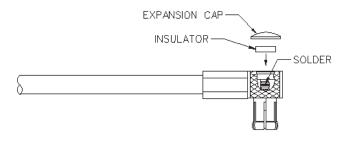
CABLE TYPE	GOLD PLATED	NICKEL PLATED
RG-188/U, 316, 161, 174	133-3403-101	133-3403-106

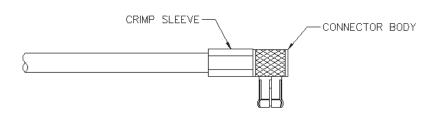


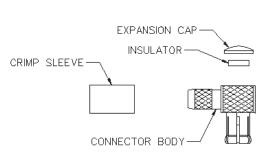
	CABLE GROUP	PART NUMBER	"A"	"B"	"C"	CRIMP HEX
	RG-188/u, 316,					
ı	161, 174	133-3403-101/106	.050 (1.27)	.270 (6.86)	.200 (5.08)	.128 (3.25)











- 1. Identify connector parts. (4 piece parts except RG-58)
- Strip cable to dimensions shown. Do not nick braid or center conductor. A wire stripper of correct size is recommended for this step. Twist stranded center conductor into tight bundle and tin (optional). Slide crimp sleeve onto cable shown.
- 3. Flair braid and slide cable into body making certain that the cable insulation bottoms on center contact. Arrange braid uniformly around crimp stem. Slide crimp sleeve over braid and crimp securely using recommended crimp tool.
- Solder center conductor to contact through rear access port. Use a minimum amount of solder for a full fillet joint. .020 (0.51) diameter solder is recommended.
- Assemble insulator if applicable then place expansion cap in access port and seat with .156 (3.96) diameter flat punch or MCX hand assembly tool 141-0000-908. Shrink heat shrink tubing over crimp sleeve if applicable.

## MCX - 50 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS Impedance: 50 Ohms Frequency Range: Connectors
Dummy loads
RG-178 cable
Uncabled receptacles, Dummy loads
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
Dielectric Withstanding Voltage: (VRMS minimum at sea level) Connectors for RG-178
Connectors for RG-316, .086 semi-rigid, uncabled receptacles, adapters
Corona Level: (Volts minimum at 70,000 feet) Connectors for RG-178
uncabled receptacles, adapters
Insertion Loss: (dB maximum, tested at 1 GHz) Straight cable connectors and adapters
Right angle cable connectors
Contact Resistance: (milliohms maximum)  After  Initial Environmenta
Center contact (straight cabled connectors, uncabled receptacles and adapters)
Center contact (right angle cabled connectors)5.0 15.0 Outer contact
Braid to body (gold plated connectors)
Cable connectors55 dB Uncabled receptacles and adapters, dummy loadsN/A

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 minir	num, tested at 4
and 7 MHz)	

Connectors for RG178	500
Connectors for RG316 and adapters	700
.086 semi-rigid	670
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:	Axial Force*	Torque
	(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		

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.

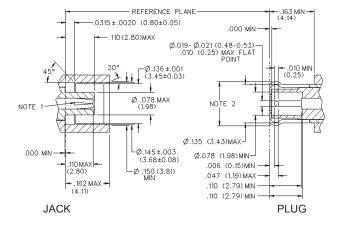
Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

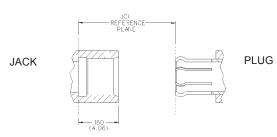
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

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.