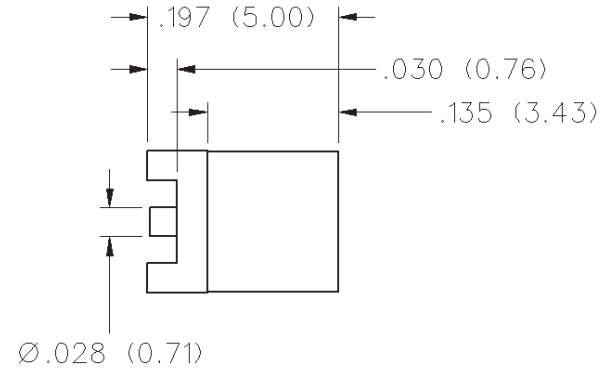
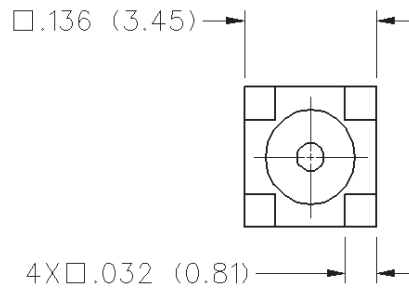
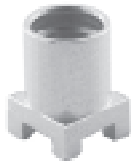


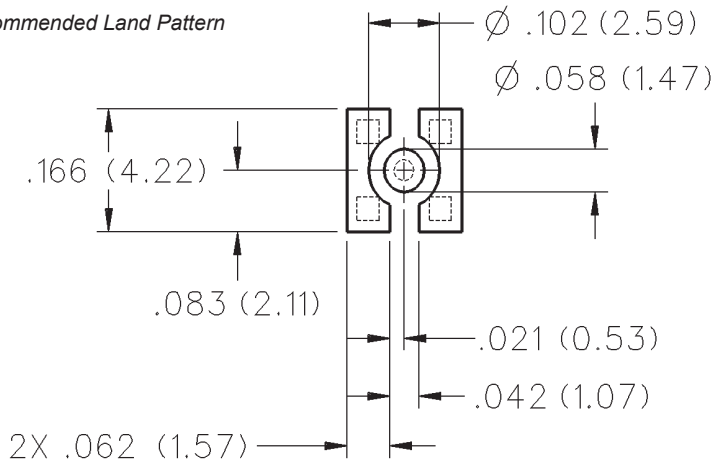
# MMCX Straight Jack Receptacle - Surface Mount

INCHES (MILLIMETERS)  
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST



| PART NUMBER  | PACKAGING                      |
|--------------|--------------------------------|
| 135-3711-201 | Stock                          |
| 135-3711-202 | Tape and Reel<br>1500 pcs/reel |

*Recommended Land Pattern*



# MMCX - 50 Ohm Connectors



## Specifications

### ELECTRICAL RATINGS

**Impedance:** 50 ohms

**Frequency Range:** Connectors ..... 0-6 GHz  
 Dummy loads ..... 0-1 GHz

**VSWR:** (f = GHz)

|                          | Straight Cabled Connectors | Right Angle Cabled Connectors |
|--------------------------|----------------------------|-------------------------------|
| .047 dia flexible        | 1.20                       | 1.14 + .07f                   |
| RG-178, RG-316, RG-316DS | 1.20                       | 1.25                          |
| .086 semi-rigid          | 1.15                       | 1.15                          |

Uncabled receptacles, dummy loads ..... N/A

**Working Voltage:** Connectors ..... 170 Vrms at sea level†  
 Dummy loads ..... N/A

**Dielectric Withstanding Voltage:** Connectors...500 Vrms at sea level†  
 Dummy loads ..... N/A

**Insulation Resistance:** 1000 megohms min

**Contact Resistance:** (milliohms maximum)

|  | Initial | After Environmental |
|--|---------|---------------------|
| Center contact (straight cabled connectors and uncabled receptacles) | 5.0     | 8.0                 |
| Center contact (right angle cabled connectors)                       | 5.0     | 15.0                |
| Outer contact (all connectors)                                       | 1.0     | 1.5                 |
| Braid to body  | 1.5     | N/A                 |

**Corona Level:** Connectors ..... 190 volts min at 70,000 feet†  
 Dummy loads ..... N/A

**Insertion Loss:** (dB max tested at 1 GHz)

|                                   |     |
|-----------------------------------|-----|
| Straight cabled connectors        | 0.1 |
| Right angle cabled connectors     | 0.2 |
| Uncabled receptacles, dummy loads | N/A |

**RF Leakage:** (dB minimum, tested at 2.5 GHz)

|                           |        |
|---------------------------|--------|
| Flexible cable connectors | -60 dB |
| .086 semi-rigid           | -70 dB |
| Dummy loads               | N/A    |

**RF High Potential Withstanding Voltage:** (400 Vrms at 4 and 7 MHz)†

**Power Rating (Dummy Load):** - 0.5 watt @ +25°C, derated to 0.25 watt @ +125° C

†Avoid user injury due to misapplication.  
 See safety advisory definitions inside front cover.

### MECHANICAL RATINGS

**Engagement Design:** Series MMCX

**Engagement/Disengagement Force:** 8 lbs. max axial engagement  
 1.4 lbs. min axial disengagement

**Contact Retention:** 2.0 lbs. minimum axial force

**Cable Retention:**

|                                | Axial Force* (pounds) | Torque (in-oz) |
|--------------------------------|-----------------------|----------------|
| Connectors for .047 flexible   | 3.5                   | N/A            |
| Connectors for RG-178          | 7.0                   | N/A            |
| Connectors for RG-316          | 20.0                  | N/A            |
| Connectors for RG-316DS        | 25.0                  | N/A            |
| Connectors for .086 semi-rigid | 30.0                  | 16             |

\*Or cable breaking strength whichever is less.

**Durability:** ..... 500 cycles minimum

**ENVIRONMENTAL RATINGS** (Meets or exceed the applicable paragraph of MIL-C-39012)

**Operating Temperature:** Connectors ..... - 65°C to + 165°C  
 Dummy loads ..... - 65°C to + 125°C

**Thermal Shock:** Connectors: MIL-STD-202, Method 107, Condition C, except -55°C to + 155°C (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 D (N/A dummy loads)

**Moisture Resistance:** MIL-STD-202, Method 106 (N/A dummy loads)

### MATERIAL SPECIFICATIONS

**Bodies:** Brass per QQ-B-626, gold plated\* per MIL-G-45204 .00001" min.

**Contacts:** Beryllium copper per QQ-C-530, gold plated\* per MIL-G-45204 .00003" min.

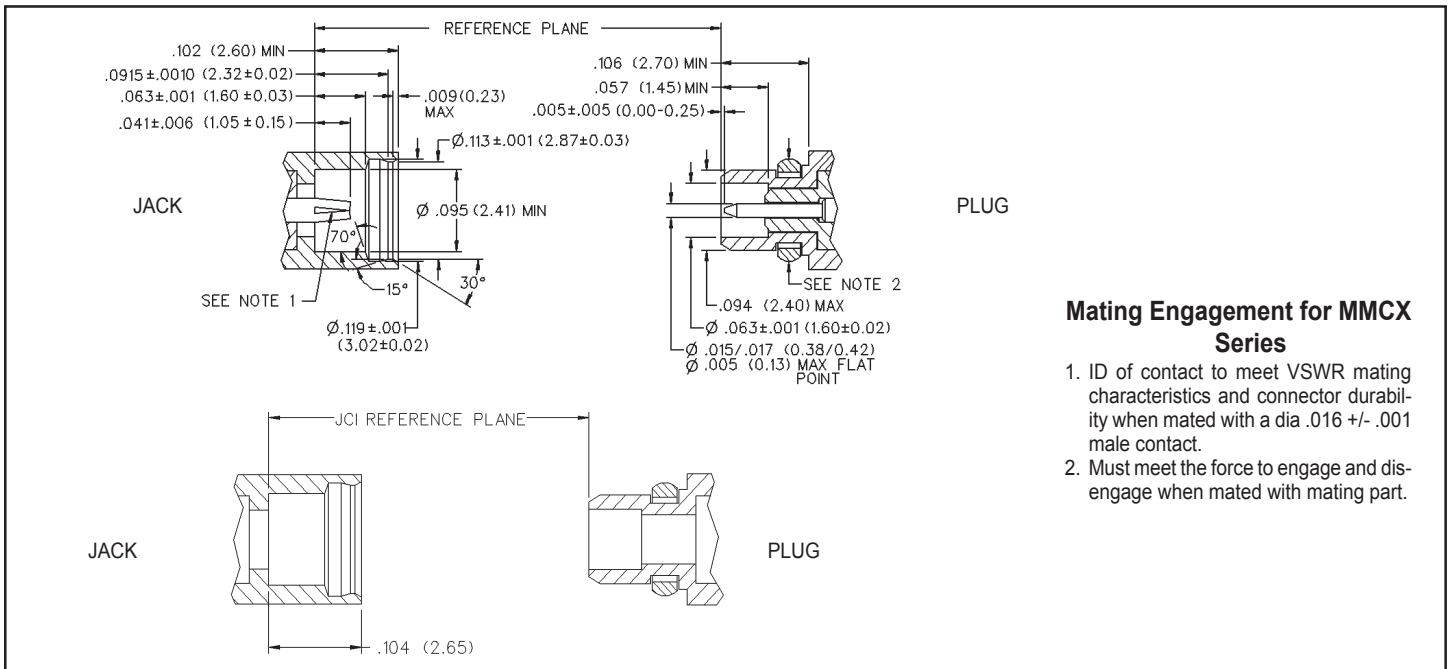
**Interface Spring:** Beryllium copper per QQ-C-530, gold plated\* per MIL-G-45204 .00003" min.

**Insulators:** PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457

**Crimp Sleeves:** Copper per WW-T-799 or brass per QQ-B-626, gold plated per MIL-G-45204 .00001" min.

**Mounting Hardware:** Brass per QQ-B-626 or QQ-B-613, gold plated per MIL-G-45204 .00001" min.

\*All gold plated parts include a .00005" min nickel barrier layer.



### Mating Engagement for MMCX Series

1. ID of contact to meet VSWR mating characteristics and connector durability when mated with a dia .016 +/- .001 male contact.
2. Must meet the force to engage and disengage when mated with mating part.