

MMCX Microminiature Snap-On Connector Series

Product Facts

- Snap-on interface facilitates assembly
- 35% smaller than MCX Series
- Designed for space saving applications up to 6 GHz
- Conforms to CECC Specifications
- Surface mount tape and reel for high volume

Tyco Electronics' micro-miniature snap-on connectors offer an excellent blend of size, durability and performance for emerging applications in GPS, PCS, automotive and wireless communications. An extension of the popular MCX series, MMCX connectors are 35% smaller, offering even greater packaging density and weight reduction. MMCX connectors are rated to 500 mating cycles. The snap-on interface facilitates assembly, eliminating the need for a threaded connection, and ensuring full engagement. The forces to engage and disengage have been optimized to ensure ease of mating as



well as to prevent damage to PCB solder connections. MMCX connectors are designed for broadband performance, DC-6 GHz, and can be utilized for future system upgrades without concerns for performance degradation. The non-slotted outer contact provides for minimal RF leakage. MMCX surface mount connectors are designed to withstand infrared reflow, convection and vapor phase soldering.

Tyco Electronics MMCX connectors are fully mateable with competitive MMCX product and conforms to the CECC interface specifications. They are available in a broad range of standard

configurations, including PCB and panel mount, flexible and semi-rigid cable. Tape and reel packaging is available on surface mount product to facilitate high volume manufacturing. Other options can be reviewed as well, including additional cable sizes, and adapters.

The MMCX connector series is a cost effective solution for the challenging demands of today's commercial marketplace. It offers one of the smallest conventional crimp terminations without special tooling. Call your local sales office or authorized distributor for additional information or samples of the MMCX connector series.

Material and Finish

Shells — Brass
Bodies — Brass, plated gold
Center Contacts —
 (Male) — Brass, plated gold
 (Female) — Beryllium Copper, plated gold
Dielectrics — PTFE

Electrical Characteristics in accordance with CECC 22000

Frequency — dc – 6 GHz
Nominal Impedance — 50 ohms
Voltage Rating — 170 Volts (VRMS Max.) @ Sea Level
VSWR — 1.25 : 1 Max. @ 6 GHz
Insulation Resistance — 1,000 Megohms Min.

Dielectric Withstanding Voltage — 500 Volts (VRMS Max.) @ Sea Level

RF Leakage — -60 dB Min. @ 2.5 GHz

Contact Resistance —
 Center Contact — 5 milliohms max.
 Outer Contact — 1 milliohm max.

Mechanical Characteristics in accordance with CECC 22000

Connector Durability — 500 mating cycles
Force to Engage — 18 Newtons Max.
Force to Disengage — 6 Newtons Max.
Center Contact Retention — 10 Newtons Min.
Cable Retention —
 Axial — 45 Newtons Min.
 Rotational — 0.05 N-m Min.

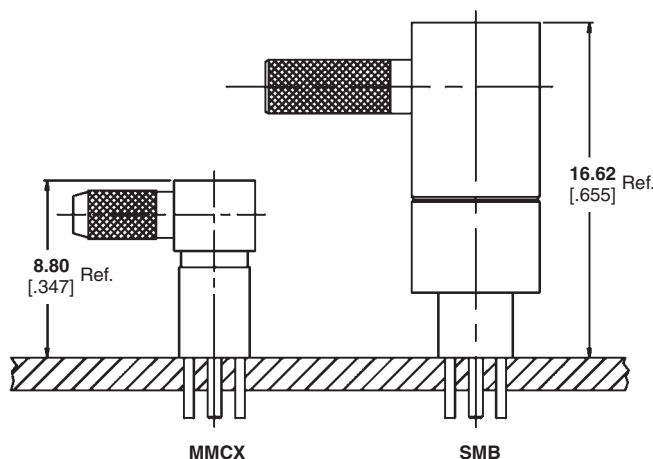
Environmental Characteristics in accordance with CECC 22000, Equivalent Test Conditions

Temperature Rating — -55 to +155°C
Vibration — MIL-STD-202, Method 204, Condition B
Shock — MIL-STD-202, Method 213, Condition A
Moisture Resistance — MIL-STD-202, Method 106
Thermal Shock — MIL-STD-202, Method 107, Condition B

Note: Performance specifications are typical, but may not apply to all connector types.

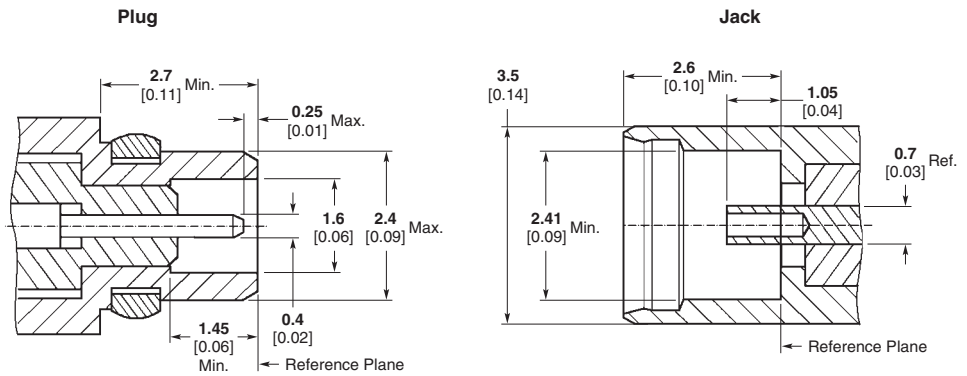
Related Product Data

Product Specification — 108-2084
Sample Kit — 1654779

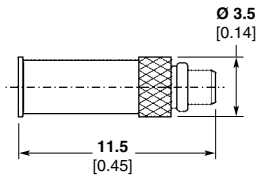


MMCX Microminiature Snap-On Connector Series (Continued)

MMCX Interface Dimensions

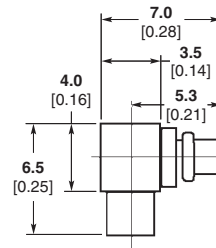


**Semi-Rigid Cable – Direct Solder Attachment
Straight Cable Plug**



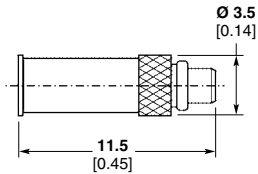
| Cable | Part No. |
|--------|-----------|
| RG 405 | 1408313-1 |

Right-Angle Cable Plug



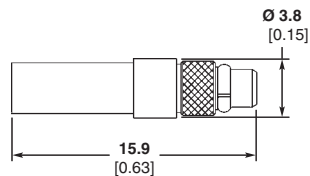
| Cable | Part No. |
|--------|-----------|
| RG 405 | 1408314-1 |

**Flexible Cable – Crimp Attachment
Straight Cable Plugs**



| Cable | Part No. |
|-------------|-----------|
| RG 178, 196 | 1408148-1 |

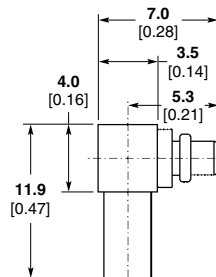
Captured Center Contact



| Cable | Part No. |
|------------------|-----------|
| RG 174, 188, 316 | 1408312-1 |
| RD 316 | 1408312-2 |

Captured Center Contact

Right-Angle Cable Plug



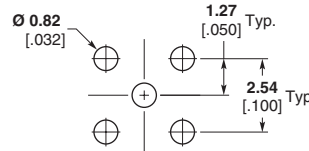
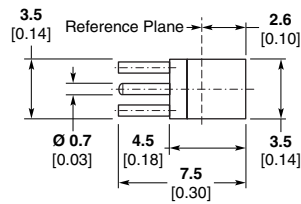
| Cable | Part No. |
|------------------|-----------|
| RG 178, 196 | 1408149-1 |
| RG 174, 188, 316 | 1408149-2 |
| RD 316 | 1408149-3 |

Captured Center Contact

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

MMCX Microminiature Snap-On Connector Series (Continued)

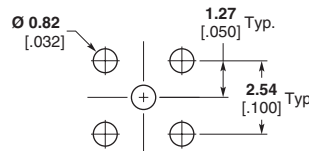
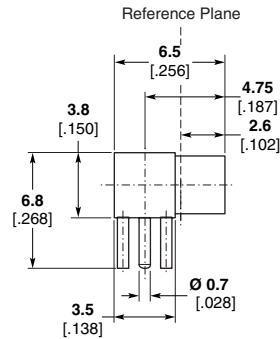
**Printed Circuit Board
Straight Jack Receptacle**



Recommended Mounting Holes

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|------------------|
| Part No. |
| 1408150-1 |

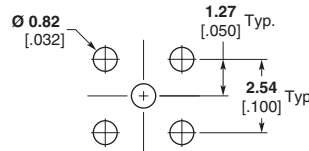
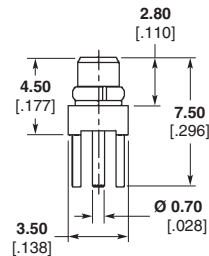
Right-Angle Jack Receptacle



Recommended Mounting Holes

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|------------------|
| Part No. |
| 1408151-1 |

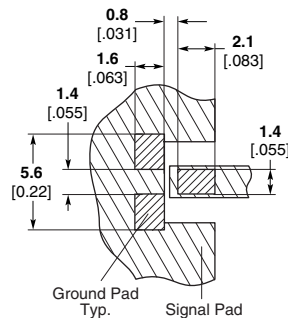
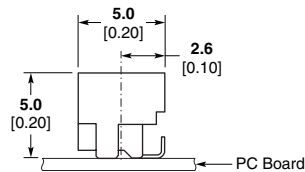
Straight Plug Receptacle



Recommended Mounting Holes

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|------------------|
| Part No. |
| 1408496-1 |

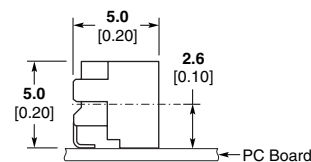
**Surface Mount
Straight Jack Receptacle**



Recommended Mounting Pattern

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|------------------|
| Part No. |
| 1393757-6 |

Right-Angle Jack Receptacle



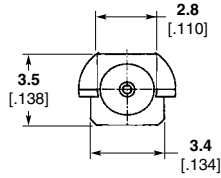
Recommended Mounting Pattern

| |
|------------------|
| Part No. |
| 1393757-7 |

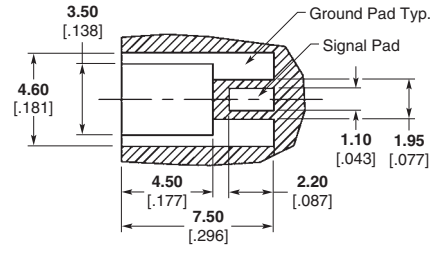
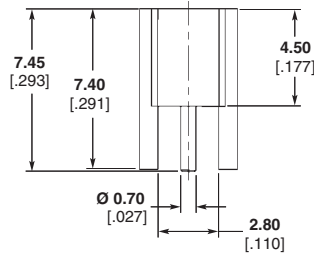
Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

MMCX Microminiature Snap-On Connector Series (Continued)

Edge Mount
Straight Jack Receptacle

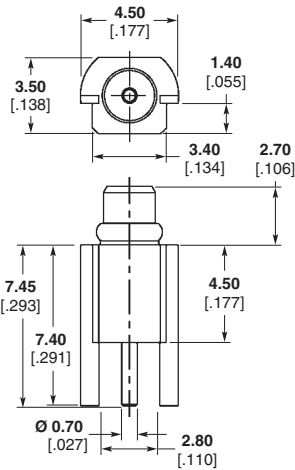


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|------------------|
| Part No. |
| 1408152-1 |

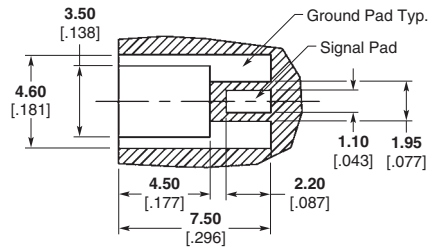


Solder Pad Configuration Only

Straight Plug Receptacle



| |
|------------------|
| Part No. |
| 1408120-1 |



Solder Pad Configuration Only

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.