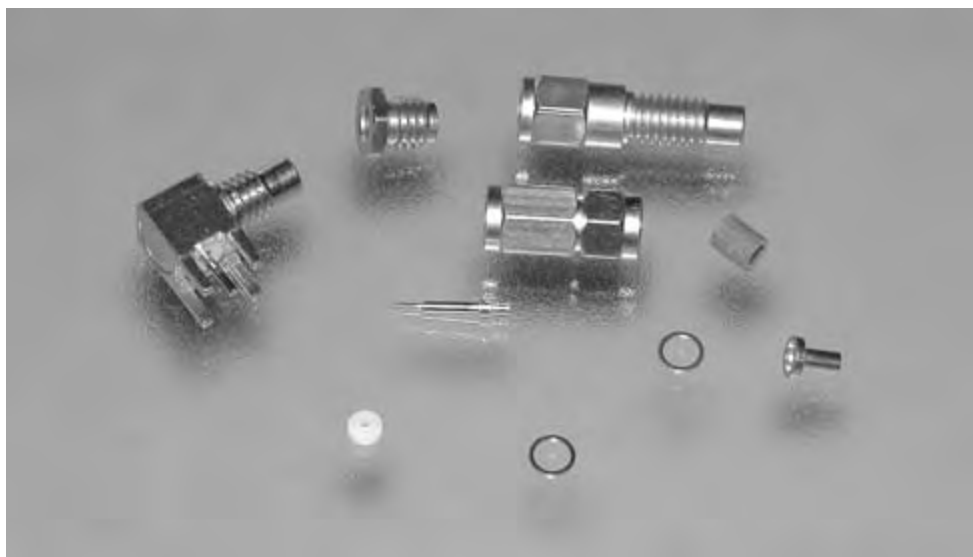


SMC Connectors

Product Facts

- Three-piece designs
- Fast, clean cable assembly
- Connector bodies preassembled
- Solderless termination —no danger of heat damage
- Center conductor and braid terminated with same tool
- Low noise level
- Miniature screw-on coupling
- PTFE dielectric



The SMC Connector is miniature and light-weight, especially designed for use in critical applications where limited space and vibration are of major concern.

This connector is designed in accordance with the requirements of Specification MIL-C-39012, Class II, Category B to assure the highest standards of electrical and mechanical performance. It has a constant impedance of 50 ohms, a voltage rating of 350 volts and provides excellent operation at frequencies up to 10 GHz. It also has a threaded coupling and can be used with a wide range of miniature coaxial cable sizes including RG 174, 197, 187, 188 and 316.

Materials

Brass — QQ-B-626
Beryllium Copper — QQ-C-530
Copper — QQ-C-576
PTFE Insulation — MIL-P-19468

Plating

Gold — MIL-G-45204

Electrical Characteristics

Nominal Impedance — 50 ohms
Working Voltage — 335 volts rms
Frequency Range — 0 to 10 GHz
Insulation Resistance — 1000 megohms min.

Contact Resistance —

Outer Contact — 1 milliohms
 Center Contact —
 Straight Connectors — 6 milliohms
 Right-Angle Connectors —
 12 milliohms

Dielectric Withstanding Voltage — 1000 volts rms

RF Leakage — -60 dB min., between 2 and 3 GHz

RF Insertion Loss —

Straight Connectors — 0.25 dB max. at 4 GHz
 Right-Angle Connectors — 0.50 dB max. at 4 GHz

Corona Level — 250 volts min. at 70,000 ft [21 336 m]

Mechanical Characteristics

Mating/Unmating — 10-32 threaded coupling

Cable Attachment — Crimp type, both center contact and braid

Coupling Nut Retention — 35 lb [156 N] min.

Cable Retention — 20 lb [89 N] min., GR-174 cable

Durability — 500 cycles per MIL-C-39012

Environmental Characteristics

Temperature Range — -65°C to +85°C

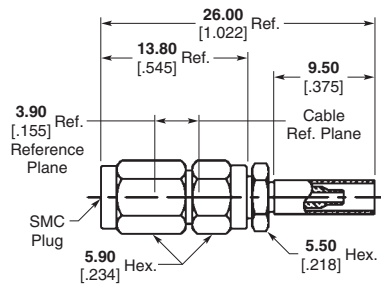
Vibration — MIL-STD-1344, Method 2005, Condition IV

Salt Spray — MIL-STD-1344, Method 1001, Condition B

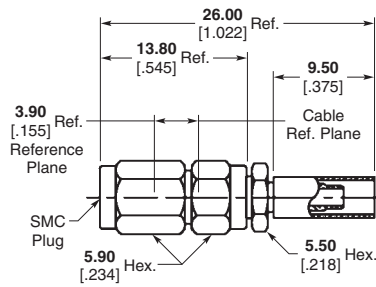
Temperature Cycling — MIL-STD-1344, Method 1003, Condition A (except low temperature is -65°C)

SMC Connectors (Continued)

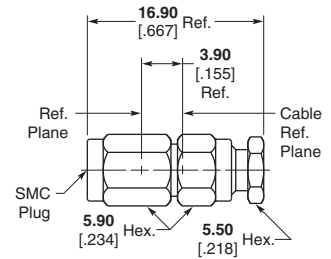
Straight Plugs



Part No. 1060220-1
Crimp



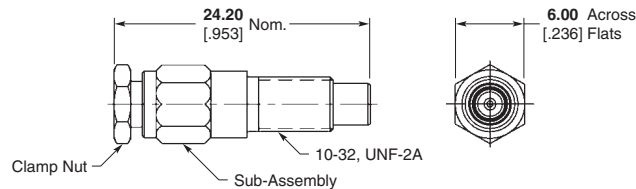
Part No. 1060221-1
Crimp



Part No. 1060163-1
Clamp

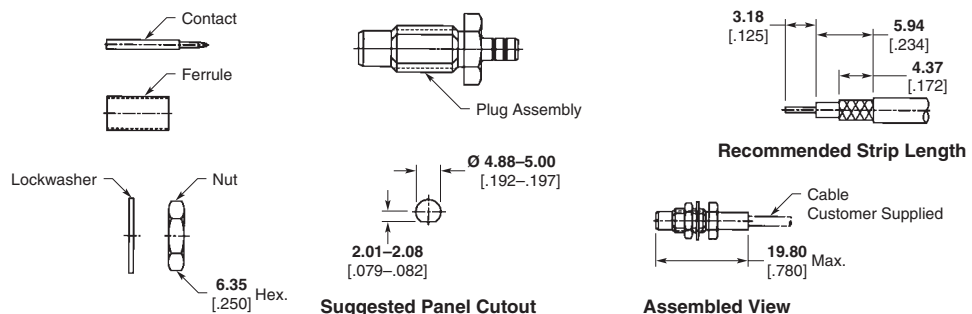
Cable Attachment	RG/U Cable	Part No.
Crimp	178, 178A, 178B 196, 196A	1060220-1
Crimp	174, 316 188, 188A	1060221-1
Clamp	174, 316 188, 188A	1060163-1

Straight Jacks



Cable Attachment	RG/U Cable	Part No.
Clamp	174, 316 188, 188A	1311638-1

Bulkhead Feedthrough Cable Jacks

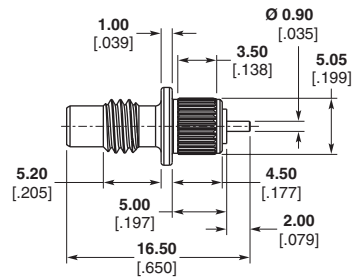


Cable Attachment	RG/U Cable	Part No.
Crimp	174, 316 188, 188A	51751-1

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

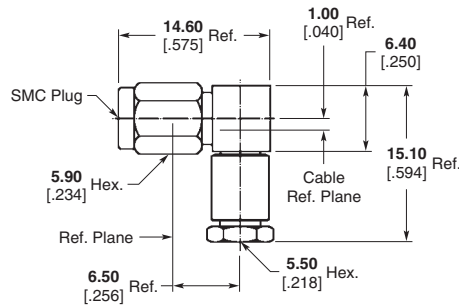
SMC Connectors (Continued)

Press-In Panel Jacks, Straight Terminal



Part No. 1460470-1

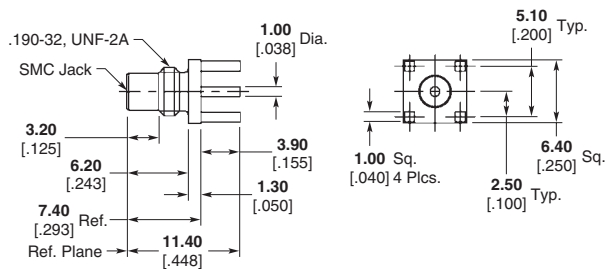
Right-Angle Cable Plug



Cable Attachment	RG/U Cable	Part No.
Clamp	174, 316 188, 188A	1060183-1

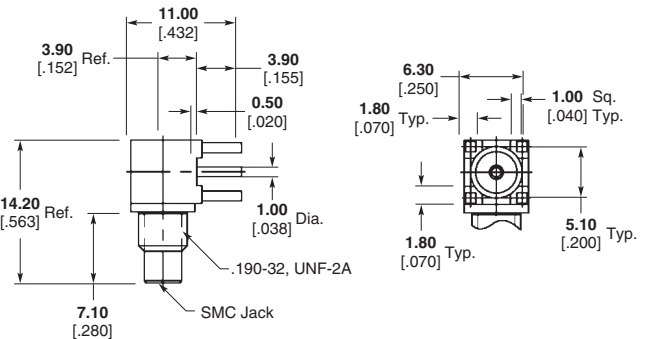
PC Board Jack Receptacles

Straight

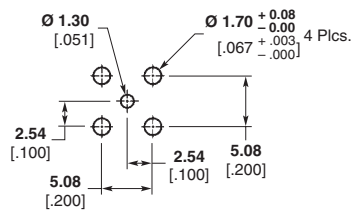


Part No. 1060256-1

Right-Angle



Part No. 1060259-1



Recommended PC Board Layout

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