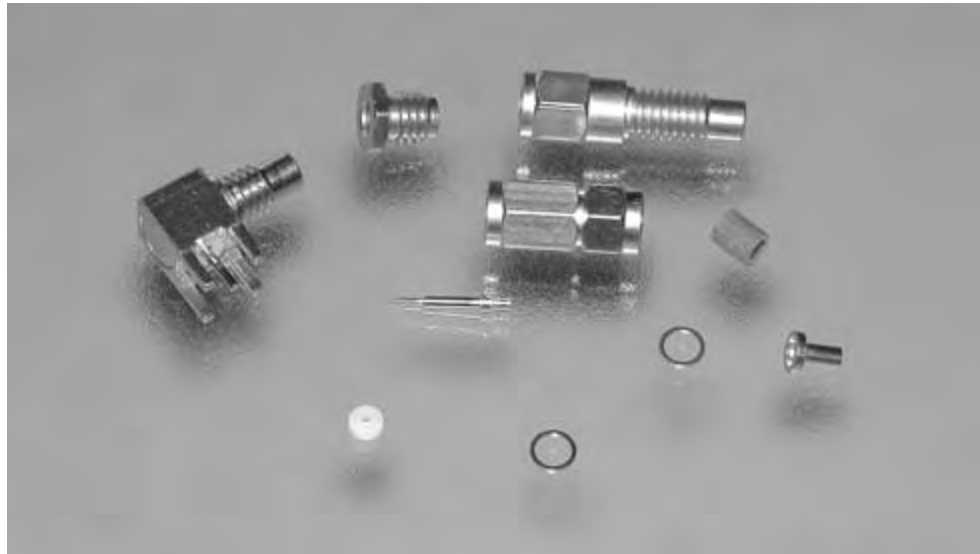


## SMC Connectors

### 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
- TEFLON 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  
**TEFLON 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

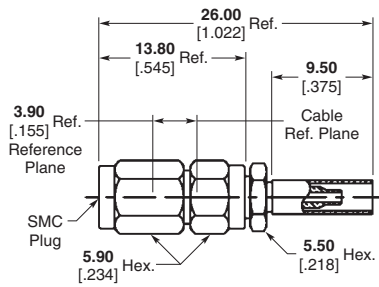
### Environmental Characteristics

**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)

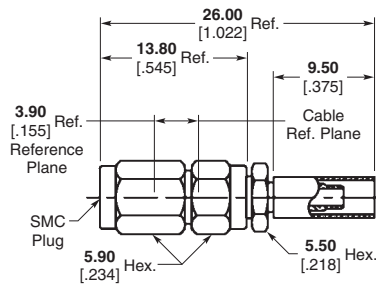
TEFLON is a trademark of E.I. Dupont de Nemours and Company.

**SMC Connectors (Continued)**

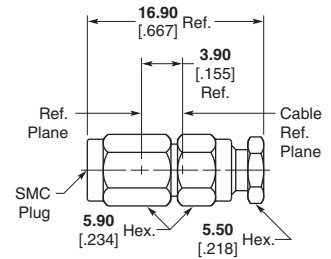
**Straight Plugs**



**Part No. 1060220-1  
Crimp**



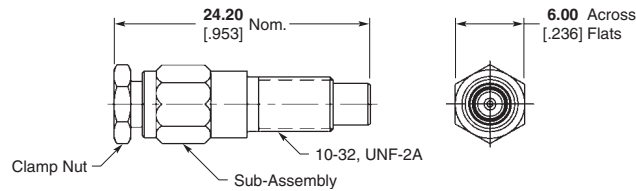
**Part No. 1060221-1  
Crimp**



**Part No. 1060163-1  
Clamp**

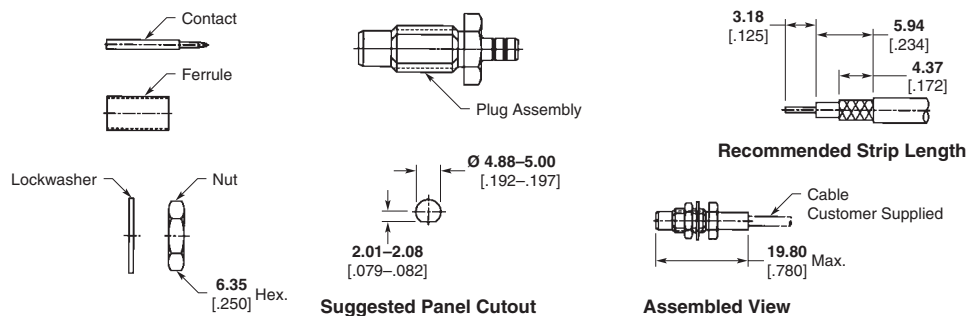
Cable Attachment	RG/U Cable	Part No.
Crimp	178, 178A, 178B 196, 196A	<b>1060220-1</b>
Crimp	174, 316 188, 188A	<b>1060221-1</b>
Clamp	174, 316 188, 188A	<b>1060163-1</b>

**Straight Jacks**



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

**Bulkhead Feedthrough Cable Jacks**

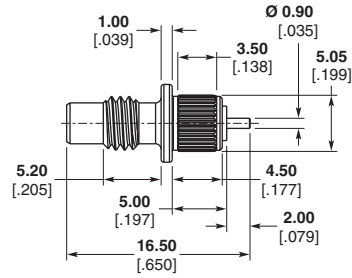


Cable Attachment	RG/U Cable	Part No.
Crimp	174, 316 188, 188A	<b>51751-1</b>

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

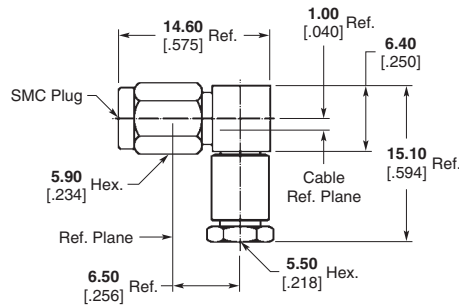
**SMC Connectors (Continued)**

**Press-In Panel Jacks, Straight Terminal**



**Part No. 1460470-1**

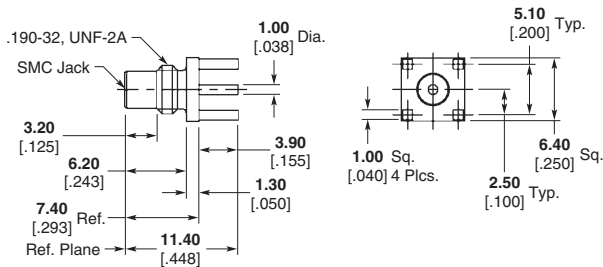
**Right-Angle Cable Plug**



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

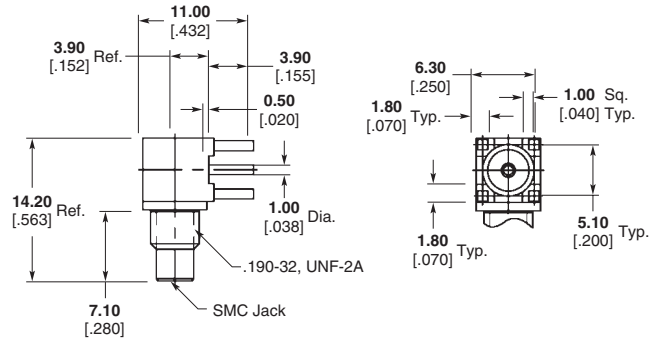
**PC Board Jack Receptacles**

**Straight**

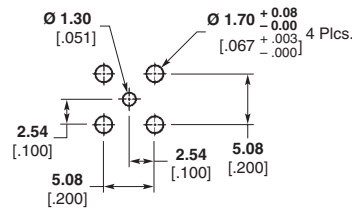


**Part No. 1060256-1**

**Right-Angle**



**Part No. 1060259-1**



**Recommended PC Board Layout**

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