

## SMA Connectors

### Product Facts

- Performance to 12.4 GHz and beyond
- Available in various base metal options, including stainless steel, brass and zinc diecast
- Uses industry standard crimp tools and processes
- Available with corrosion resistant, non-magnetic White Bronze plating
- Meets all performance requirements for MIL-C-39012.



Tyco Electronics offers a complete line of SMA connectors designed for performance to 18 GHz to satisfy the growing demand for SMA connectors in the wireless communications industry. The SMA product line offers stainless steel bodies, as well as non-ferrous metals. Various plating options are available, including Gold and White Bronze. The SMA interface is fully compatible with Mil-C-39012.

While still offering various options on military (QPL) approved connectors, Tyco Electronics has developed a complete offering tailored to the commercial Communications industry. This includes 3 piece flexible cable products for popular RG 316, 142 and RD

316 cable utilizing industry standard HEX crimps.

The SMA series meets the performance, quality and application requirements of the commercial marketplace. This includes White Bronze plating, a unique finish developed by Tyco Electronics to address the performance needs of the telecommunications market. This plating is highly resistant to wear, and contains no ferrous metals, thus displaying excellent inter-modulation characteristics.

To satisfy the broad range of commercial applications, SMA connectors are available in a broad range of standard configurations including; straight and right-angle cable applied plugs, bulkhead cable jacks, two and four hole

flange mount panel jacks, straight and right-angle pcb mount jacks and various between and in series adapters. Numerous packaging and testing options are also available to meet specific system criteria as well.

Additionally, standard military approved (QPL) interfaces are offered as well. Including connectors for semi-rigid cable and micro strip applications.

The 3 Piece SMA offering is designed especially for applications in cellular infrastructure where InterModulation Products (IMP) must be minimized. By limiting non-linearities within the connectors, IMP is reduced and increased channel capacity can be offered.

### Between Series Adapters

For SMA Between Series Adapters, see pages 251-260.

## SMA Connectors (Continued)

### Specifications

MIL-C-39012 Applicable Paragraph		
<b>General</b>		
Material	3.3	Steel corrosion resistant per ASTM-A-582 and ASTM-A-484, Type 303. Beryllium copper per ASTM-B-196. PTFE Fluorocarbon per ASTM-D-1710.
Finish	3.3.1	Center contacts shall be gold plated to a min. thickness of .00127 [.00005] in accordance with MIL-G-45204, ASTM-B-488. All other metal parts shall be finished as to provide a connector which meets the corrosion requirements.
Design	3.4	The design shall be such that the outline shown in this catalog and the interface dimensions of MIL-STD-348A are met.
<b>Electrical</b>		
Insulation Resistance	3.11	The insulation resistance shall not be less than 10,000 megohms.
Corona Level	3.22	Refer to applicable military slash sheet, product drawing or spec.
Dielectric Withstanding Voltage	3.17	Refer to applicable military slash sheet, product drawing or spec.
RF High Potential	3.23	Refer to applicable military slash sheet, product drawing or spec.
Contact Resistance	3.16	Refer to applicable military slash sheet, product drawing or spec.
VSWR	3.14	Refer to applicable military slash sheet, product drawing or spec. Frequency range dependent on cable used.
RF Leakage	3.26	Refer to applicable military slash sheet, product drawing or spec.
Insertion Loss	3.27	Refer to applicable military slash sheet, product drawing or spec. Frequency range dependent on cable used.
<b>Mechanical</b>		
Force to Engage	3.5.1	The torque required to engage and disengage shall not exceed 2 in.-lbs. The longitudinal force is not applicable.
Coupling Nut Retention	3.25	60 lbs. min. Applicable for plug connectors only.
Coupling Proof Torque	3.6	15 in.-lbs. min. Applicable for plug connectors only.
Cable Retention	3.24	Refer to applicable military slash sheet or consult factory.
Mating Characteristics	3.7	Applicable to jack connectors only. Reference MIL-STD-348A for dimensions; oversize test pin .953 [.0375] min. dia., .76 - 1.14 [.030-.045] deep, insertion force 3 lbs. max. with .940 [.0370] min. dia. pin, withdrawal force 1 oz. min. with .902 [.0355] max. dia. pin.
Connector Durability	3.15	The connector to be tested and its mating connector shall be subjected to 500 insertion and withdrawal cycles at 12 cycles per minute max. The connector shall show no evidence of mechanical failure and shall meet the mating characteristic requirements.
Recommended Mating Torque	—	7 to 10 in.-lbs.
<b>Environmental</b>		
Vibration	3.18	Specification MIL-STD-202, method 204, test condition D
Shock	3.19	Specification MIL-STD-202, method 213, test condition I
Thermal Shock	3.20	Refer to applicable military slash sheet or consult factory.
Corrosion (Salt Spray)	3.13	Specification MIL-STD-202, method 101, test condition B.
Moisture Resistance	3.21	Specification MIL-STD-202, method 106. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes of removal from humidity.

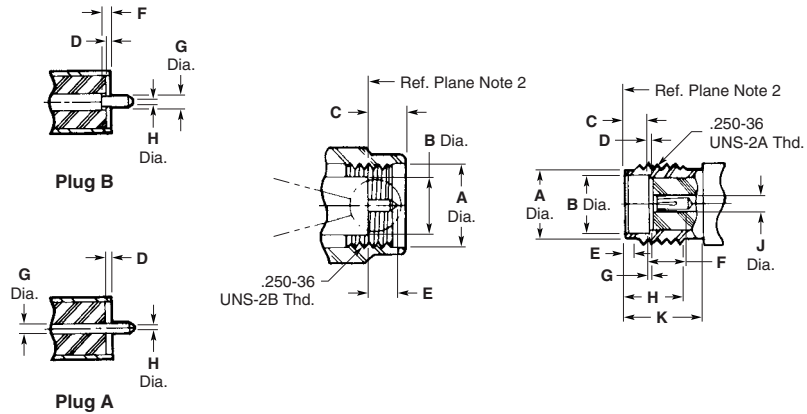
**SMA Connectors (Continued)**
**Electrical**

Connector Type	Cable	Frequency Max. (GHz)	VSWR x (fGHz)	Contact Resistance (milliohms max.)		Insulation Resistance (megohms min.)	Dielectric Withstanding Voltage (Volts RMS)	Corona Extinction Voltage at 70,000 Ft. (V RMS min.)	RF Transmission Loss	RF High Potential at 5 MHz (V RMS)	RF Leakage (dB min.)
				Center Contact	Outer Contact						
Straight Cable Plug without Contact	RG 402 (3.58 [.141])	Note 1	1.02 + .005	N/A	2.0	10,000	N/A	250	N/A	670	-(90-fGHz)
	RG 405 (2.16 [.085])	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(90-fGHz)
Straight Cable Plugs & Jacks Solder Attachment	RG 402 (3.58 [.141])	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
	3.58 [.141] Microporous	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
	RG 401 (6.35 [.250])	18.0	1.07 + .007	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
	RG 174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 √f(GHz)	500	-(60-fGHz)
Straight Cable Plugs & Jacks Clamp Attachment	RG 55, 58, 141, 142, 223, 303, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 √f(GHz)	670	-(60-fGHz)
	RG 405 (2.16 [.085])	12.4	1.10 + .015	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(90-fGHz)
Straight Cable Plugs & Jacks Solder Clamp Attachment	RG 402 (3.58 [.141])	12.4	1.07 + .01	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
	RG 55, 58, 141, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 √f(GHz)	670	-(60-fGHz)
Straight Cable Plugs & Jacks Clamp Attachment	RG 174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 √f(GHz)	500	-(60-fGHz)
	RG 180, 195	Note 1	—	2.0	2.0	10,000	750	190	—	500	-(60-fGHz)
	RG 55, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 √f(GHz)	670	-(60-fGHz)
Straight Cable Plugs & Jacks Crimp Attachment	RG 58, 141, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 √f(GHz)	670	-(60-fGHz)
	RG 174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.06 √f(GHz)	500	-(60-fGHz)
	RG 180, 195	Note 1	—	2.0	2.0	10,000	750	190	—	500	-(60-fGHz)
	RG 178, 196	Note 1	1.2 + .02	2.0	2.0	10,000	500	125	.06 √f(GHz)	335	-(60-fGHz)
Straight Cable Plugs & Jacks Compression Clamp Attachment	RG 401 (6.35 [.250])	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 √f(GHz)	1000	-70 dB min.
	6.35 [.250] Microporous	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 √f(GHz)	1000	-70 dB min.
	6.35 [.250] 3 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 √f(GHz)	1000	-70 dB min.
	6.35 [.250] 5 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	.05 √f(GHz)	1000	-70 dB min.
Right-Angle Cable Plugs Solder Attachment	RG 405 (2.16 [.085])	12.4	1.18 + .015	2.0	2.0	10,000	1000	250	.04 √f(GHz)	670	-(90-fGHz)
	RG 405 (2.16 [.085])	18.0	1.18 + .015	2.0	2.0	10,000	1000	250	.04 √f(GHz)	670	-(90-fGHz)
	RG 402 (3.58 [.141])	12.4	1.15 + .015	2.0	2.0	10,000	1500	325	.04 √f(GHz)	1000	-(90-fGHz)
	RG 402 (3.58 [.141])	18.0	1.10 + .010	2.0	2.0	10,000	1500	250	.05 √f(GHz)	1000	-(90-fGHz)
	RG 55, 58, 141, 142, 223, 303, 400	Note 1	1.15 + .01	2.0	2.0	10,000	1000	250	.07 √f(GHz)	670	-(60-fGHz)
	RG 174, 188, 316	Note 1	1.15 + .02	2.0	2.0	10,000	750	190	.07 √f(GHz)	500	-(60-fGHz)
Right-Angle Cable Plugs Crimp Attachment	RG 55, 142, 223, 400	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	.07 √f(GHz)	670	-(60-fGHz)
	RG 58, 141, 303	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	.07 √f(GHz)	670	-(60-fGHz)
	RG 174, 188, 316	Note 1	1.18 + .02	2.0	2.0	10,000	750	190	.07 √f(GHz)	500	-(60-fGHz)
	RG 180, 195	Note 1	—	2.0	2.0	10,000	750	190	—	500	-(60-fGHz)
	RG 178, 196	Note 1	1.25 + .025	2.0	2.0	10,000	500	125	.07 √f(GHz)	335	-(60-fGHz)
Right-Angle Cable Plugs Clamp Attachment	RG 55, 58, 141, 142, 223, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.08 √f(GHz)	670	-(60-fGHz)
	RG 174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	.08 √f(GHz)	500	-(60-fGHz)
	RG 180, 195	Note 1	—	2.0	2.0	10,000	750	190	—	500	-(60-fGHz)
Flange Mount Plugs & Jacks Panel or Bulkhead Mount	Non-Captured	18.0	1.03 + .004	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(100-fGHz)
	Epoxy Captured	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(60-fGHz)
	Mechanical Capture	18.0	1.04 + .004	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(100-fGHz)
	Field Replaceable Hermetic Launchers	18.0	1.04 + .006	2.0	2.0	10,000	1000	250	.04 √f(GHz)	670	-(100-fGHz)
Bulkhead Feedthrough Jacks	Epoxy Captured	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	.04 √f(GHz)	670	-(60-fGHz)
	Mechanical Capture	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	.04 √f(GHz)	670	-(100-fGHz)
Right-Angle Flange Mount Jacks	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	.08 √f(GHz)	670	-(90-fGHz)
	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	.08 √f(GHz)	670	-(90-fGHz)
Printed Circuit Board Mount Straight Terminal	N/A	18.0	N/A	2.0	2.0	10,000	1000	250	N/A	670	N/A
Right-Angle Printed Circuit	N/A	12.4	N/A	2.0	2.0	10,000	1000	250	N/A	670	N/A
End Launch Stripline Circuit	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(60-fGHz)
Surface Launch Stripline Circuit	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	.03 √f(GHz)	670	-(60-fGHz)
Right-Angle Surface Launch Stripline Circuit	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	.08 √f(GHz)	670	-(60-fGHz)
	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	.08 √f(GHz)	670	-(60-fGHz)

1. Maximum operating frequency of cable per MIL-C-17.
2. Specifications do not apply to hermetic or compression crimp connectors.
3. For Brass SMA: Frequency Range DC-6GHz, Impedance 50 Ohms, Insulation Resistance.

**SMA Connectors** (Continued)

**Interface Mating Dimensions**



**Plug**

Dimension	Minimum	Maximum
A	<b>6.35</b> .250	—
B	—	<b>4.59</b> .1808
C	—	<b>3.43</b> .135
D	<b>0.00</b> .000	<b>0.25</b> .010
E	—	<b>2.54</b> .100
F	<b>0.00</b> .000	<b>0.25</b> .010
G	<b>0.90</b> .0355	<b>0.94</b> .037
H	<b>0.00</b> .000	<b>0.38</b> .015

**Jack**

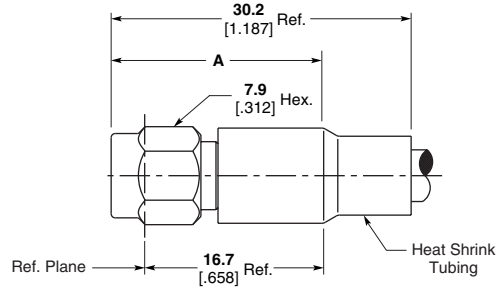
Dimension	Minimum	Maximum
A	<b>5.28</b> .208	<b>5.49</b> .216
B	<b>4.60</b> .181	—
C	<b>1.91</b> .075	<b>1.98</b> .078
D	<b>0.00</b> .000	<b>0.25</b> .010
E	<b>0.38</b> .015	<b>1.43</b> .045
F	<b>2.92</b> .115	—
G	<b>0.00</b> .000	<b>0.25</b> .010
H	<b>4.32</b> .170	—
J	<b>1.24</b> .049	<b>1.30</b> .051
K	<b>5.54</b> .218	—

**Notes:**

1. ID to meet VSWR and contact resistance when mated with 0.51 +.025/-.013 [.036 +.0010/-.0005] Dia. Pin.
2. When fully engaged, the two reference planes must coincide with metal to metal contact.
3. Metric equivalents (to the nearest 0.01mm) are given for general information only.

**SMA Connectors** (Continued)  
**Flexible Cable**

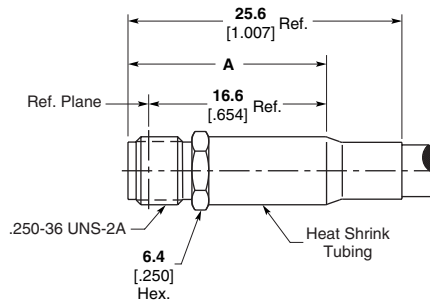
**Straight Cable Plug, Solder**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold <sup>1</sup>	No	Solder	<b>19.7</b> .775	408-4821	<b>1051638-1</b>
174, 188, 316	Stainless, Gold <sup>1</sup>	No	Solder	<b>17.5</b> .690	408-4756	<b>1051644-1</b>

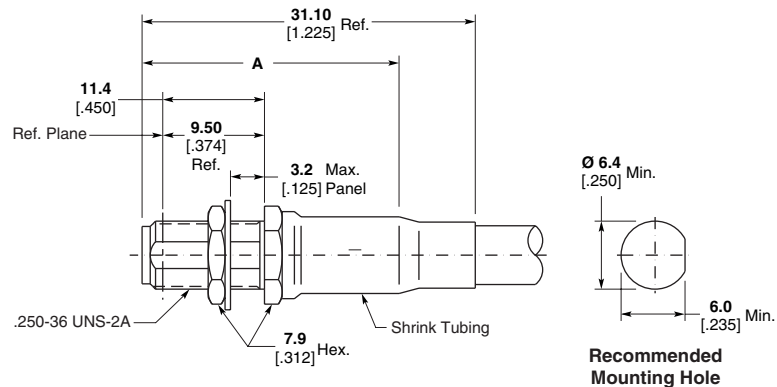
<sup>1</sup>Coupling nut is passivated stainless steel.

**Straight Cable Jack, Solder**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold	No	Solder	<b>18.5</b> .730	408-4820	<b>1051852-1</b>

**Bulkhead Cable Jack, Solder**

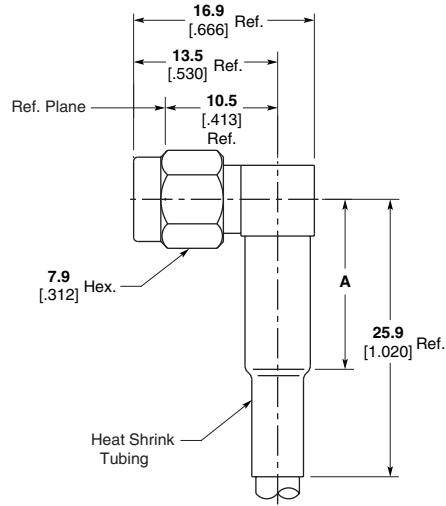


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
RG 55, 58, 141, 142, 300	Stainless, Gold	No	Solder	<b>24.0</b> .945	408-4817	<b>1051861-1</b>
174, 188, 316	Stainless, Gold	No	Solder	<b>21.0</b> .825	408-4817	<b>1051942-1</b>

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

**SMA Connectors** (Continued)  
**Flexible Cable** (Continued)

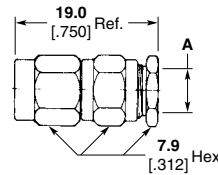
**Right-Angle Cable Plug, Solder**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold <sup>1</sup>	Yes	Solder	16.0 .630	408-4816	1052063-1
174, 188, 316	Stainless, Gold <sup>1</sup>	Yes	Solder	11.2 .440	408-4815	1052067-1

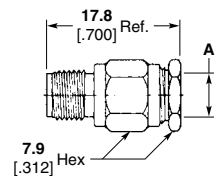
<sup>1</sup>Coupling nut is passivated stainless steel.

**Straight Cable Plug, Clamp**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
174, 188, 316	Stainless, Pass.	Yes	Solder	2.9 .116	408-4906	1050721-1

**Straight Cable Jack, Clamp**

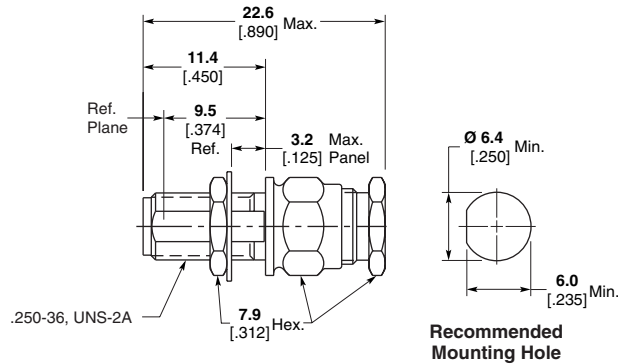


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	Part No.
174, 188, 316	Stainless, Pass.	Yes	Solder	2.9 .116	408-4906	1050903-1

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

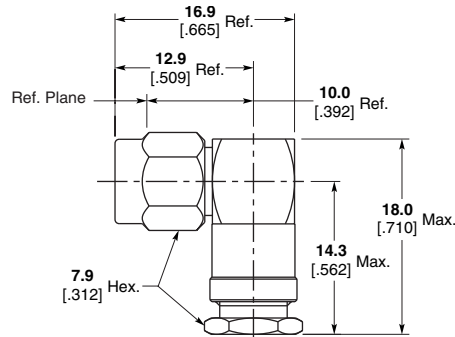
**SMA Connectors** (Continued)  
**Flexible Cable** (Continued)

**Bulkhead Feedthrough Cable Jack, Clamp**



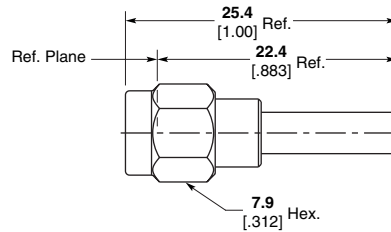
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Instruction Sheet	Part No.
174, 188, 316	Stainless, Pass.	Yes	Solder	408-4704	1050996-1

**Right-Angle Cable Plug, Clamp**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Instruction Sheet	Part No.
174, 188, 316	Stainless, Pass.	Mechanical	Solder	408-4965	1051140-1

**Straight Cable Plug, Crimp**



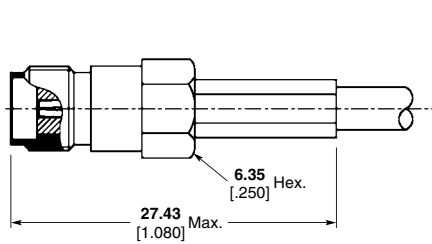
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	1056443-1
RD316	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1 <sup>1</sup>	408-4661	1056436-1
55, 142, 223, 400	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	1056438-1
174, 179, 187, 188, 316	Brass, White Bronze	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	1082034-1

<sup>1</sup>Use die 1055270-1 to crimp RD316 ferrule.  
<sup>2</sup>Use die 1055880-1 to crimp center contact.

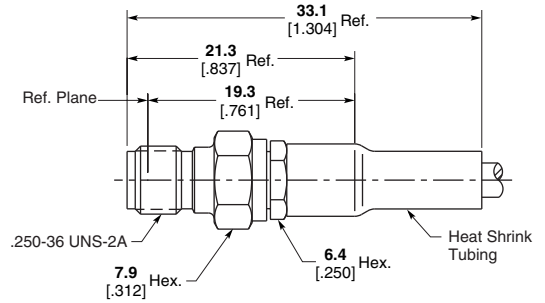
**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

**SMA Connectors** (Continued)  
**Flexible Cable** (Continued)

**Straight Cable Jack, Crimp**



Style A

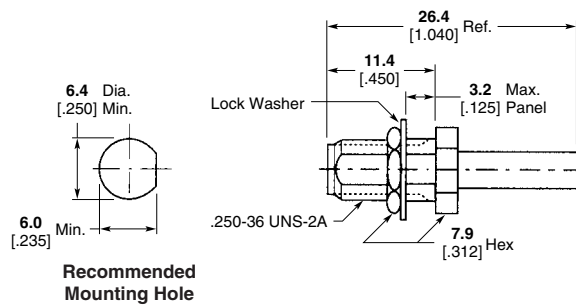


Style B

Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Style	Part No.
174, 316	Brass, Nickel	Mechanical	Solder	1	408-4032	A	<b>5447648-3</b>
58, 141, 303	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4704	B	<b>1051867-1</b>
174, 188, 316	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4708	B	<b>1051855-1</b>
178, 196	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4806	B	<b>1051869-1</b>

<sup>1</sup>Refer to Tyco Electronics Customer Print for tooling requirement. DANIELS Mil Tooling used for contact and ferrule crimp.

**Bulkhead Feedthrough  
Cable Jack, Crimp**



Recommended  
Mounting Hole

Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	<b>1056452-1</b>
RD316	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1 <sup>3</sup>	408-4661	<b>1056445-1</b>
58, 141, 303	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	<b>1056450-1</b>
55, 142, 223, 400	Stainless, Pass.	Mechanical	Solder/Crimp <sup>2</sup>	1055236-1	408-4661	<b>1056447-1</b>
174, 188, 316	Brass, Nickel	Mechanical	Crimp	1	408-4032	<b>5448103-2</b>

<sup>1</sup>Refer to Tyco Electronics Customer Print for tooling requirement. DANIELS Mil Tooling used for contact and ferrule crimp.

<sup>2</sup>Use die 1055880-1 to crimp center contact.

<sup>3</sup>Use die 1055270-1 to crimp RD316 ferrule.

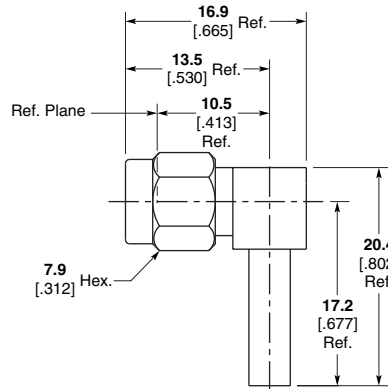
DANIELS is a trademark of Daniels Manufacturing Corporation.

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



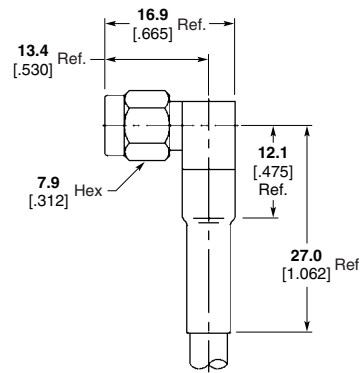
**SMA Connectors** (Continued)  
**Flexible Cable** (Continued)

**Right-Angle Cable Plug, Crimp**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	<b>1056462-1</b>
58, 141, 303	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	<b>1056456-1</b>

**Right-Angle Cable Plug, Crimp**

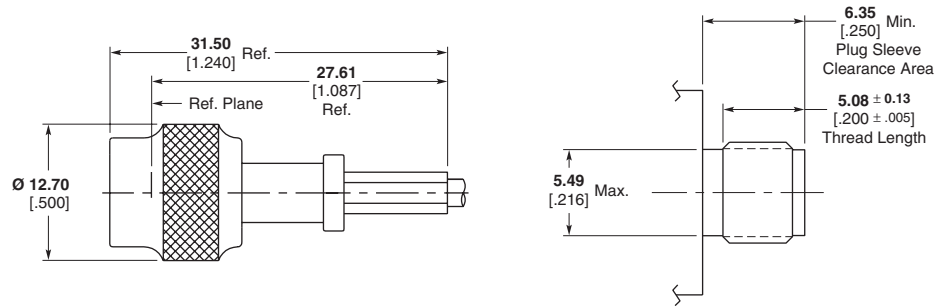


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
55, 142, 223, 400	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4681	<b>1052072-1</b>
174, 188, 316	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4683	<b>1052076-1</b>
178, 196	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4801	<b>1052098-1</b>

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

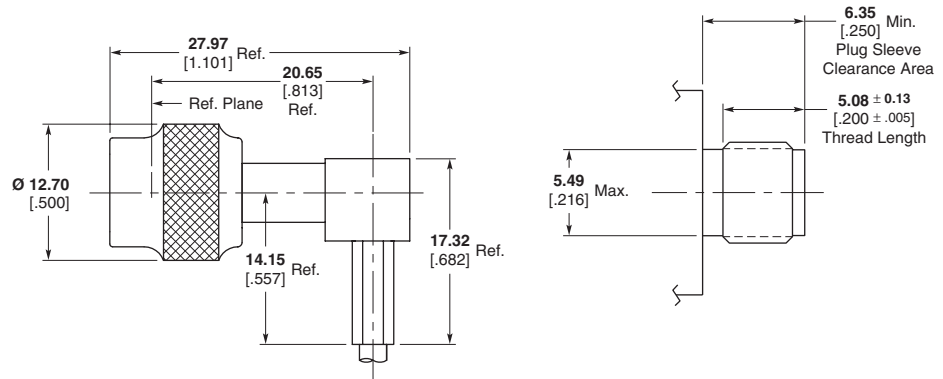
**SMA Connectors** (Continued)  
**Flexible Cable** (Continued)

**Straight Push-On**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Part No.
316	Beryllium Copper, Gold	Mechanical	Crimp	1408541-1

**Right-Angle Push-On**

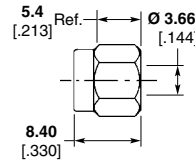


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Part No.
316	Beryllium Copper, Gold	Mechanical	Solder/Crimp	1274694-1

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

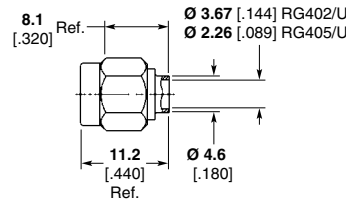
**SMA Connectors** (Continued)  
**Direct Solder Attachment, Semi-Rigid Cable**

**Straight Cable Plug**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [0.141])	Stainless, Pass.	No Center Contact	No Center Contact	1055420-1	408-4761	<b>1050757-1</b>

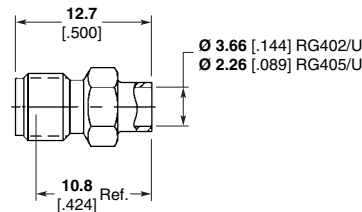
**Straight Cable Plug**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [0.141])	Stainless, Gold <sup>1</sup>	No	Solder	1055420-1	408-4764	<b>1050525-1</b>
405 (2.16 [0.085])	Stainless, Gold <sup>1</sup>	No	Solder	1055420-1	408-4765	<b>1050770-1</b>
402 (3.58 [0.141])	Stainless, Gold <sup>1</sup>	No Center Contact	No Center Contact	N/A	—	<b>1050542-1</b>
405 (2.16 [0.085])	Stainless, Gold <sup>1</sup>	No	Solder	1055420-1	—	<b>1050548-1</b>

<sup>1</sup>Coupling nut is passivated stainless steel.

**Straight Cable Jack**

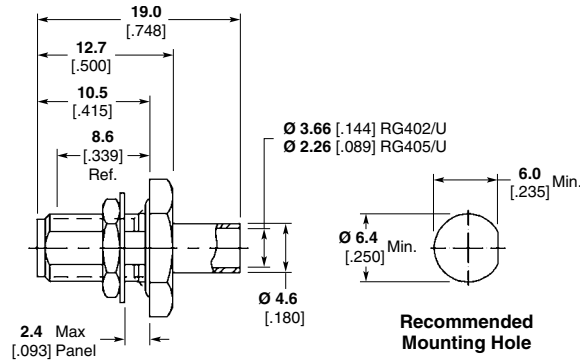


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [0.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	<b>1050854-1</b>
405 (2.16 [0.085])	Stainless, Gold	No	Solder	1055420-1	408-4833	<b>1050859-1</b>

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

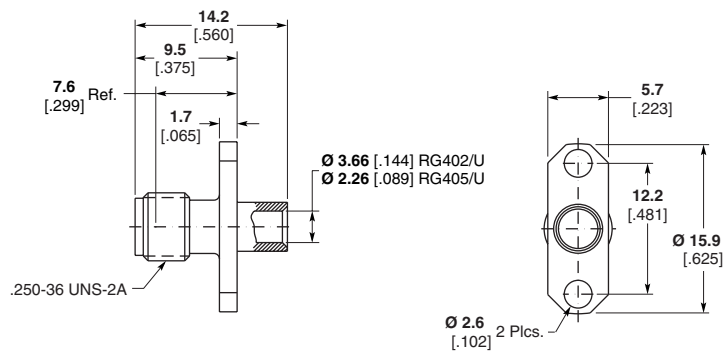
**SMA Connectors (Continued)**  
**Direct Solder Attachment, Semi-Rigid Cable (Continued)**

**Bulkhead Cable Jack**



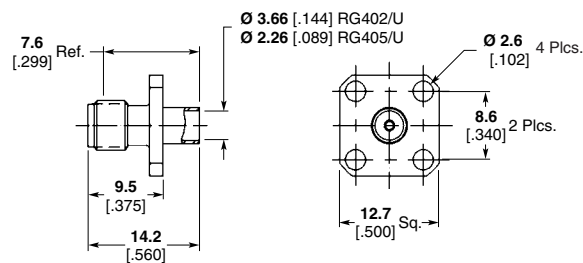
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [.141])	Brass, Gold	No	Solder	1055420-1	408-4768	<b>1082029-1</b>

**2 Hole Flange Mount  
Cable Jack**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	<b>1051052-1</b>
405 (2.16 [.085])	Stainless, Gold	No	Solder	1055420-1	408-4883	<b>1051046-1</b>

**4 Hole Flange Mount  
Cable Jack**

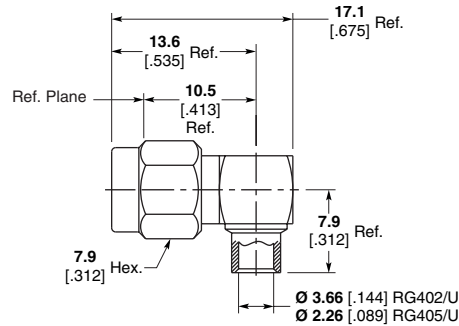


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	<b>1051081-1</b>
405 (2.16 [.085])	Stainless, Gold	No	Solder	1055420-1	408-4883	<b>1051085-1</b>

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

**SMA Connectors** (Continued)  
**Semi-Rigid Cable**

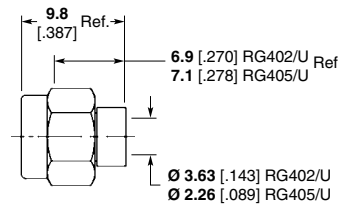
**Right-Angle Cable Plug,  
Direct Solder Attachment**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	Part No.
402 (3.58 [0.141])	Stainless, Gold <sup>1</sup>	Epoxy	Solder	1055420-1	408-4831	<b>1051151-1</b>
405 (2.16 [0.085])	Stainless, Gold <sup>1</sup>	Epoxy	Solder	1055420-1	408-4831	<b>1051157-1</b>
405 (2.16 [0.085])	Brass, Gold	Mechanical	Solder	1055420-1	408-4831	<b>1088312-1</b>

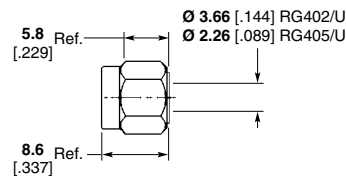
<sup>1</sup>Coupling nut is passivated stainless steel.

**Straight Cable Plug, Crimp**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
405 (2.16 [0.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4695	<b>1050598-1</b>
402 (3.58 [0.141])	Stainless, Pass.	No Center Contact	Solderless	1055835-1	408-4690	<b>1050740-1</b>

**Straight Cable Plug —  
Low Profile, Crimp**

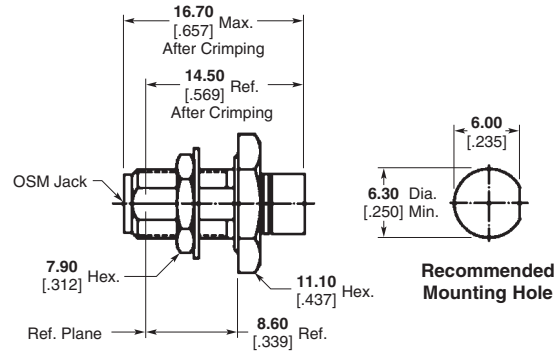


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
402 (3.58 [0.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4696	<b>1050602-1</b>
405 (2.16 [0.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4697	<b>1050611-1</b>

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

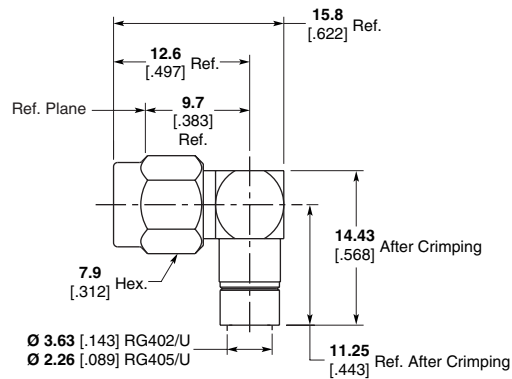
**SMA Connectors** (Continued)  
**Semi-Rigid Cable** (Continued)

**2 Hole Flange, Crimp**



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4954	<b>1051005-1</b>
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4689	<b>1051007-1</b>

**Right-Angle Cable Plug, Crimp**

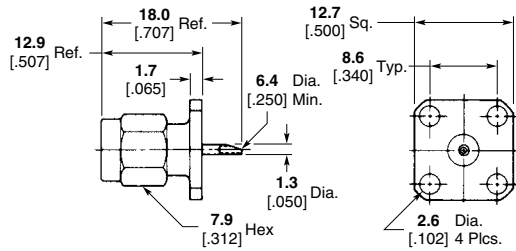


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Part No.
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4691	<b>1051145-1</b>
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4692	<b>1051147-1</b>

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

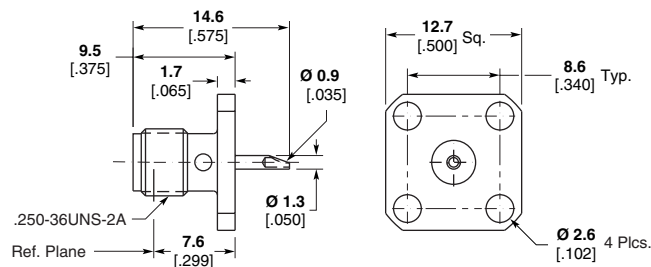
**SMA Connectors (Continued)**  
**Panel Mount, Solder Pot Terminal**

**4 Hole Flange Mount Plug Receptacle**



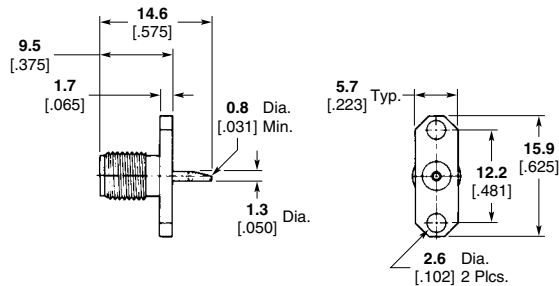
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	N/A	-65 to 125° C	1052324-1

**4 Hole Flange Mount Jack Receptacle**



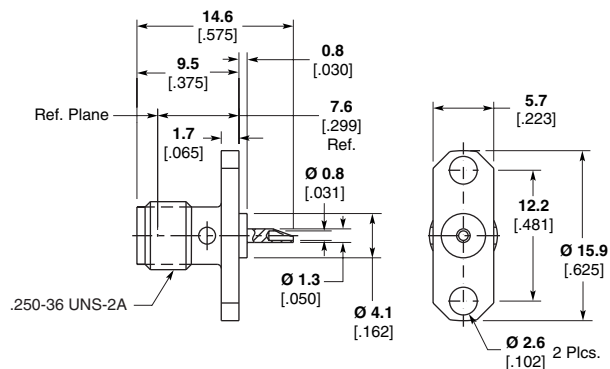
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052422-1

**2 Hole Flange Mount Jack Receptacle**



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052544-1

**2 Hole Flange Mount Jack Receptacle**

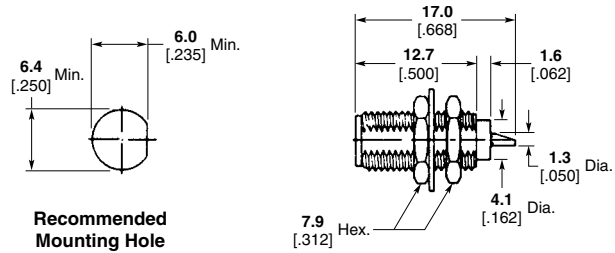


Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052534-1

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

**SMA Connectors (Continued)**  
**Panel Mount**

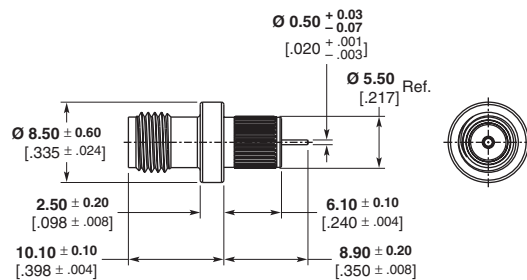
**Bulkhead Feedthrough Jack Receptacle, Solder Pot Terminal**



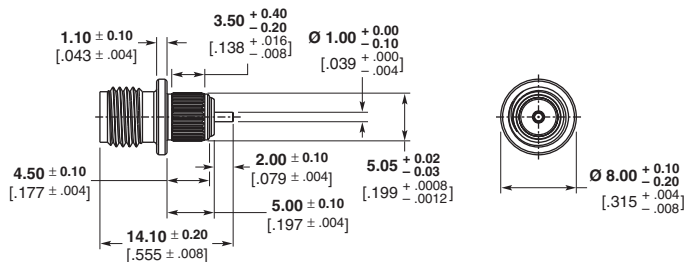
**Recommended Mounting Hole**

Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	N/A	-65 to 125° C	1053092-1

**Press-In Jacks, Straight Terminal**



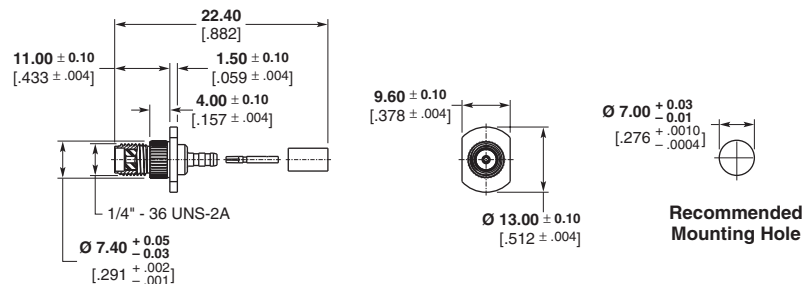
**Part Number 1460468**



**Part Number 1460469**

Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Brass, White Bronze	Mechanical	N/A	-65 to 125° C	1460468-1
Brass, Gold	Mechanical	N/A	-65 to 125° C	1460469-1

**Press-In Cable, Jack Panel**



**Recommended Mounting Hole**

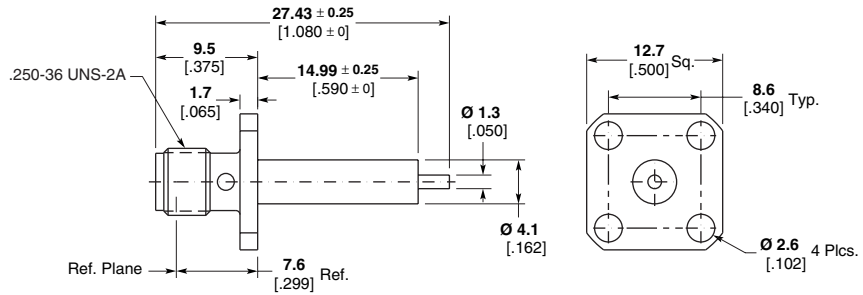
**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Cable Type RG/U	Body Material & Finish	Contact Captivation	Temperature Range	Part No.
316 D	Brass, Gold	Mechanical	-65 to 125° C	619115-1



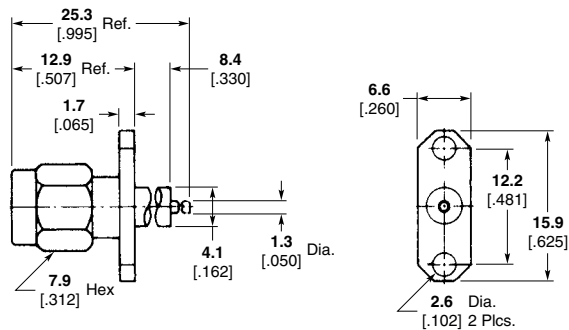
**SMA Connectors (Continued)**  
**Panel Mount, Straight Terminal**

**4 Hole Flange Mount Jack Receptacle**



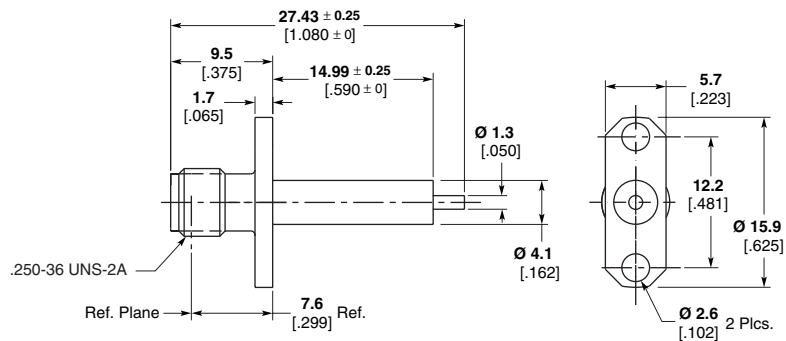
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	None	-(100-fGHz)	-65 to 165° C	1052518-1
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052523-1
Stainless, Gold	Epoxy	-(60-fGHz)	-65 to 125° C	1052522-1

**2 Hole Flange Mount Plug Receptacle**



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052349-1

**2 Hole Flange Mount Jack Receptacle**

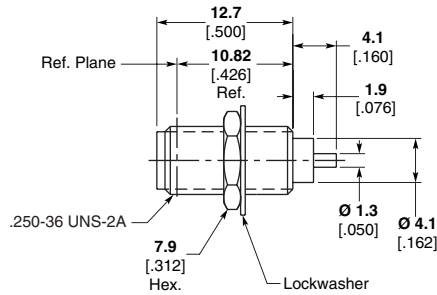


Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052552-1

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

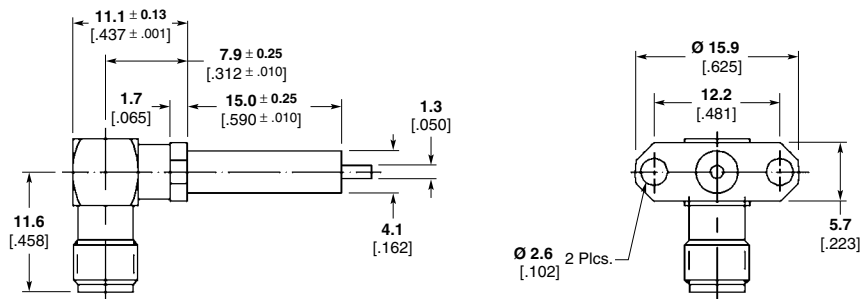
**SMA Connectors (Continued)**  
**Panel Mount, Straight Terminal (Continued)**

**Bulkhead Feedthrough Jack Receptacle**



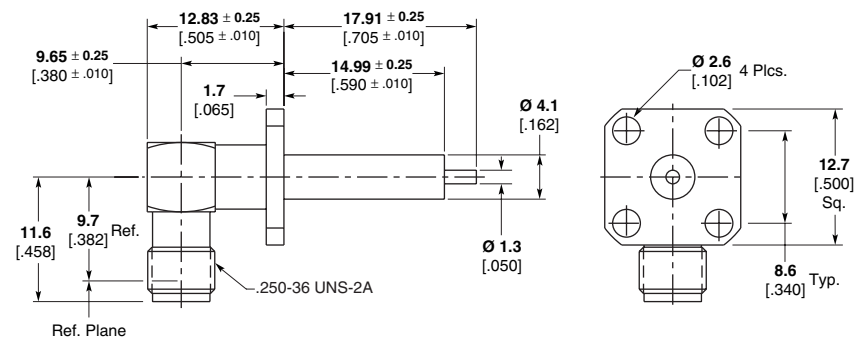
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1053222-1

**2 Hole Flange Mount Right-Angle Jack Receptacle**



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	1052986-1

**4 Hole Flange Mount Right-Angle Jack Receptacle**

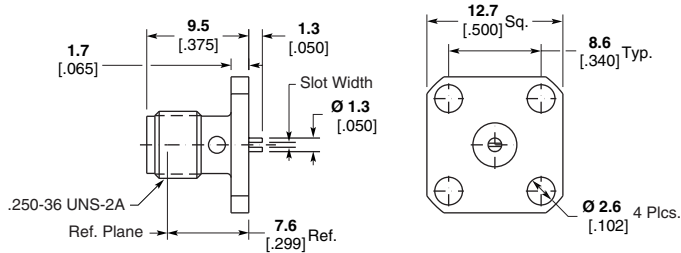


Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	1052978-1
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	1052982-1

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

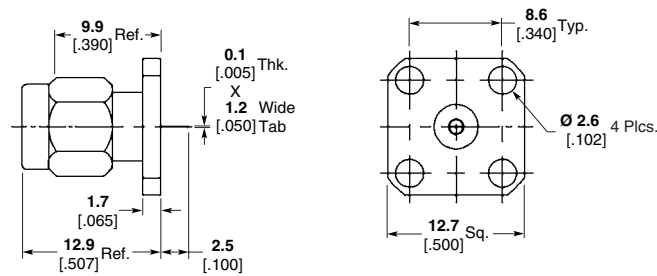
**SMA Connectors (Continued)**  
**Panel Mount**

**4 Hole Flange Mount Jack Receptacle, Straight Terminal**



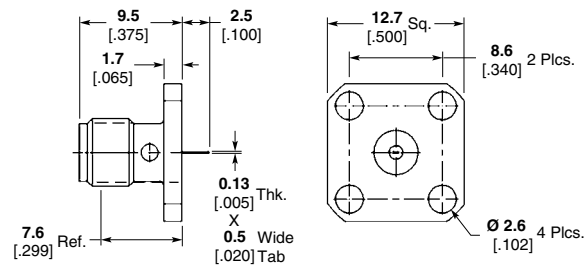
Body Material & Finish	Contact Captivation	Slot Width +.076/- .025 [+.003/- .001]	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	0.5 [.018]	-(60-fGHz)	-65 to 125° C	<b>1052563-1</b>

**4 Hole Flange Mount Plug Receptacle, Tab Terminal**



Body Material & Finish	Contact Captivation	Tab Width	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	1.3 [.050]	-(60-fGHz)	-65 to 125° C	<b>1052360-1</b>

**4 Hole Flange Mount Jack Receptacle, Tab Terminal**

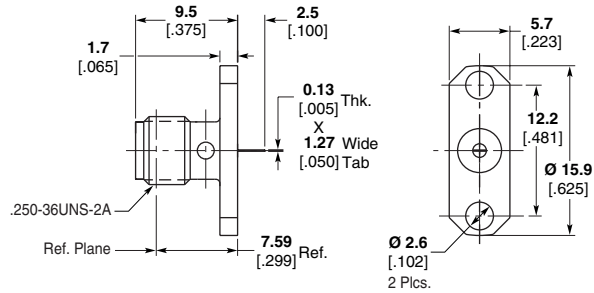


Body Material & Finish	Contact Captivation	Tab Width	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	.51 [.020]	-(60-fGHz)	-65 to 125° C	<b>1052898-1</b>

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

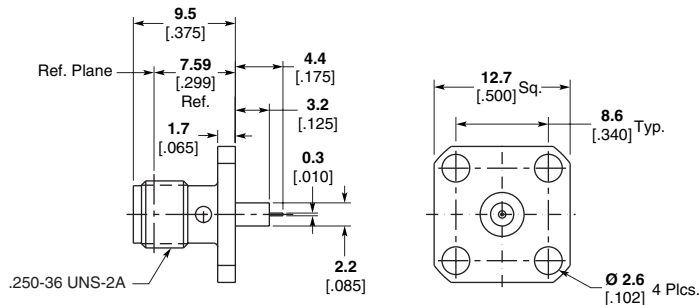
**SMA Connectors** (Continued)

**2 Hole Flange Mount Jack Receptacle, Panel Mount, Tab Terminal**



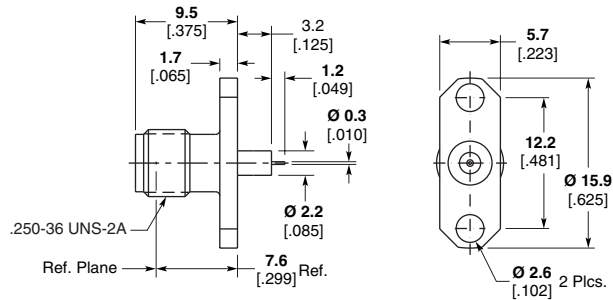
Body Material & Finish	Contact Captivation	Horizontal Tab	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	↙	-(60-fGHz)	-65 to 125° C	1052577-1

**4 Hole Flange Mount Jack Receptacle, for Microstrip Transmission Line Circuits**



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052528-1

**2 Hole Flange Mount Jack Receptacle, for Microstrip Transmission Line Circuits**

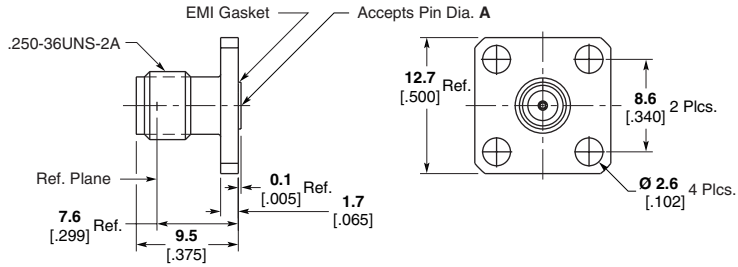


Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	1052902-1

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

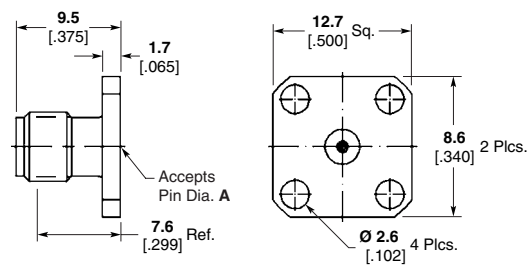
**SMA Connectors (Continued)**  
**Field Replaceable Hermetic Launchers (Continued)**

**4 Hole Flange Mount Jack Receptacle with EMI/RFI Gasket**



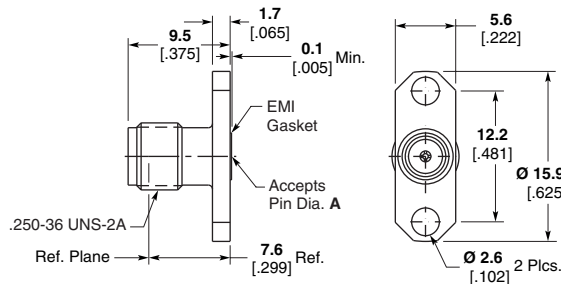
Material & Finish	Captivation	Pin Diameter A	Part No.
Stainless, Passivated	Mechanical	.38 [0.015]	<b>1052684-1</b>

**4 Hole Flange Mount Jack Receptacle without EMI/RFI Gasket**



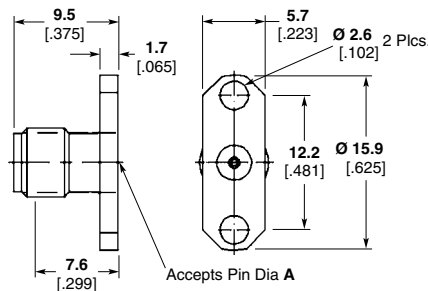
Material & Finish	Captivation	Pin Diameter A	Part No.
Stainless, Passivated	Mechanical	.91 [0.036]	<b>1052643-1</b>

**2 Hole Flange Mount Jack Receptacle with EMI/RFI Gasket**



Material & Finish	Captivation	Pin Diameter A	Part No.
Stainless, Passivated	Mechanical	.30 [0.012]	<b>1052628-1</b>
Stainless, Passivated	Mechanical	.38 [0.015]	<b>1052689-1</b>
Stainless, Passivated	Mechanical	.46 [0.018]	<b>1052634-1</b>

**2 Hole Flange Mount Jack Receptacle without EMI/RFI Gasket, Field Replaceable Hermetic Launchers**

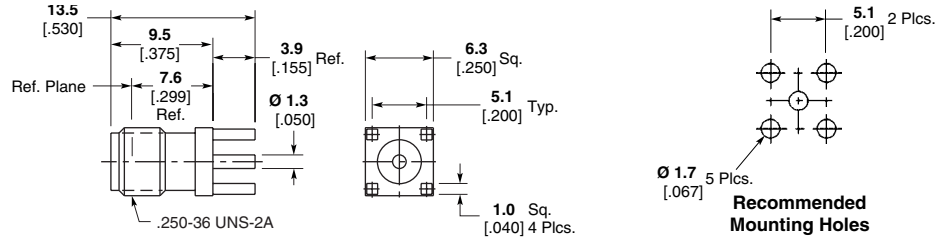


Material & Finish	Captivation	Pin Diameter A	Part No.
Stainless, Passivated	Mechanical	.51 [0.020]	<b>1052652-1</b>
Stainless, Passivated	Mechanical	.91 [0.036]	<b>1052646-1</b>

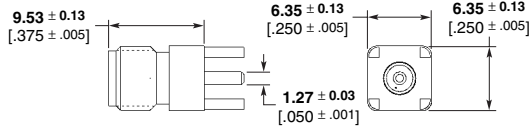
**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

**SMA Connectors (Continued)**

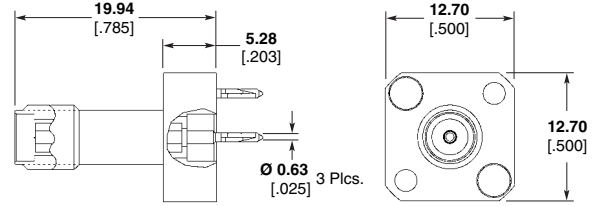
**PC Board Mount Vertical Jack**



Style 1



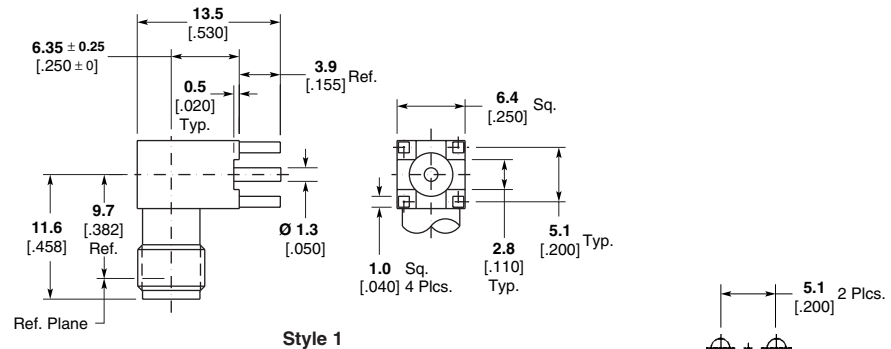
Style 2



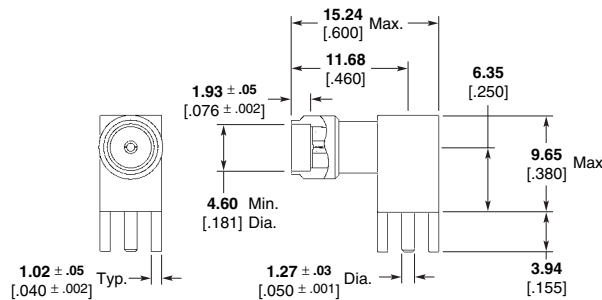
Style 3

Material & Finish	Style No.	Part No.
Stainless, Gold	1	1053354-1
Brass, Gold	2	221789-1
Brass, Gold	2	221789-3
Brass, Nickel Plate	3	6274096-1

**PC Board Mount Right-Angle Jack**



Style 1



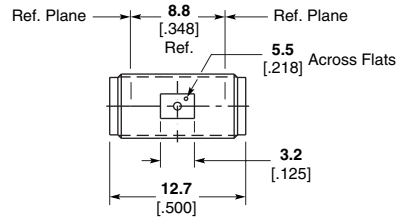
Style 2

Material & Finish	Style No.	Part No.
Stainless, Gold	1	1053378-1
Stainless, Gold	2	221790-1

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

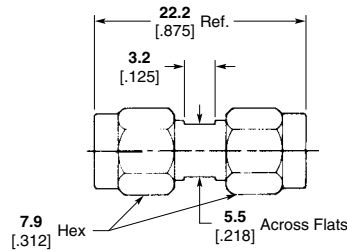
**SMA Connectors (Continued)**

**In-Series Adapter,  
Jack to Jack**



Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Gold	Epoxy*	<b>1053488-1</b>

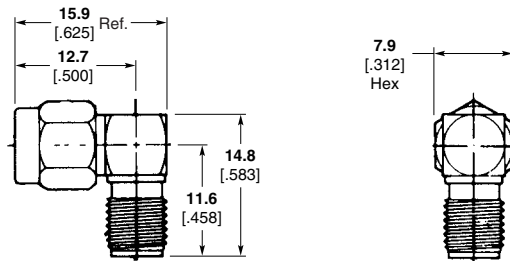
**In-Series Adapter,  
Plug to Plug**



Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy*	<b>1053635-1</b>

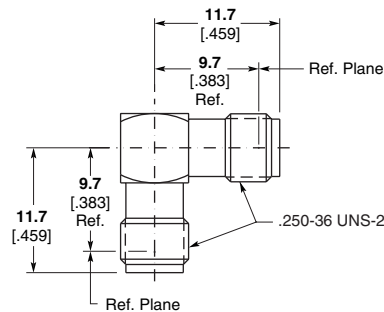
\*All adapters listed above employ epoxy captivation. Mechanically captivated versions are also available. Please consult Tyco Electronics.

**In-Series Adapter,  
Jack to Plug, Right-Angle**



Frequency	Material & Finish	Captivation	Part No.
DC-12.4GHz	Stainless, Passivated	Mechanical	<b>1055065-1</b>

**In-Series Adapter,  
Jack to Jack, Right-Angle**

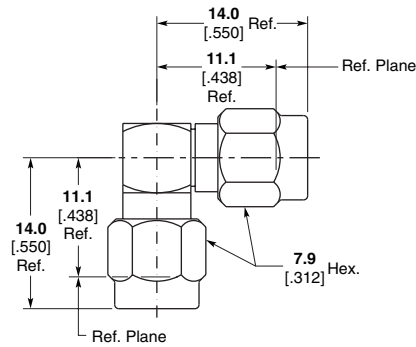


Frequency	Material & Finish	Captivation	Part No.
DC-12.4GHz	Stainless, Passivated	Mechanical	<b>1055018-1</b>

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

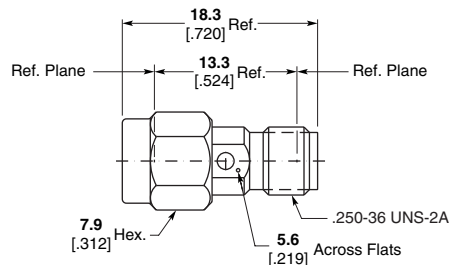
**SMA Connectors (Continued)**

**In-Series Adapter,  
Plug to Plug, Right-Angle**



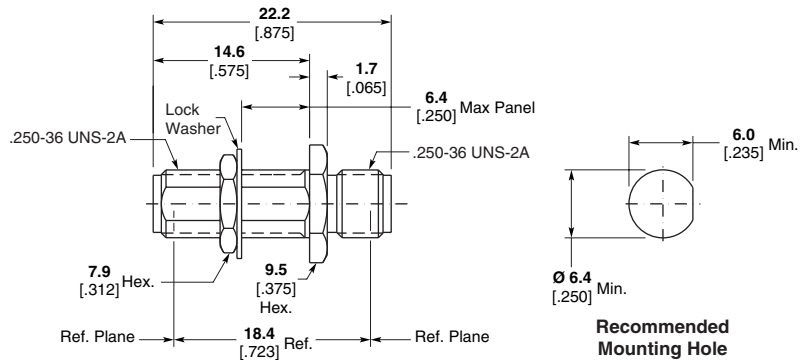
Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Passivated	Mechanical	<b>1055047-1</b>

**In-Series Adapter,  
Jack to Plug, Connector Saver**



Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy	<b>1054426-1</b>

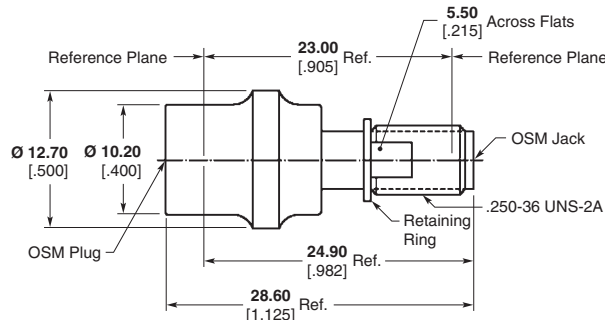
**In-Series Adapter,  
Jack to Jack,  
Bulkhead Feedthrough**



Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy*	<b>1054869-1</b>

\*Mechanically captivated version available. Please consult Tyco Electronics.

**Test Adapter,  
Plug to Jack,  
Quick Release**



Frequency	Material & Finish	Captivation	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy	<b>1053780-1</b>

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