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ELECTRONICS

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Jameco Part Number 739331

SMA Connectors**Product Facts**

- Performance to 12.4 GHz
- 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.



AMP 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, AMP 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 AMP to address the performance needs of the telecommunications market. This plating is highly resistant to wear, and contains no ferrous metals, thus displaying excellent intermodulation 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 Inter-Modulation 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 255-264.



RF Coax Connectors

SMA Connectors (Continued)

Specifications

MIL-C-39012 Applicable Paragraph		
General		
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-1457.
Finish	3.3.1	Center contacts shall be gold plated to a min. thickness of .00127 [.00005] in accordance with MIL-G-45204, Type I, Grade C. 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.
Electrical		
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 or consult factory.
Dielectric Withstanding Voltage	3.17	Refer to applicable military slash sheet or consult factory.
RF High Potential	3.23	Refer to applicable military slash sheet or consult factory.
Contact Resistance	3.16	Refer to applicable military slash sheet or consult factory.
VSWR	3.14	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
RF Leakage	3.26	Refer to applicable military slash sheet or consult factory.
Insertion Loss	3.27	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
Mechanical		
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.
Environmental		
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.

White Bronze Plating

AMPs unique Copper, Tin, Zinc alloy finish is a robust plating which is suitable for applications requiring excellent levels of electrical performance and offers the following attributes:

- High Corrosion Resistance
- Low Porosity

- Non-Magnetic Finish
- Wear and Scratch Resistant
- Low RF Losses
- Excellent for Intermodulation Sensitive Applications

For more information on White Bronze Plating, see the Application Note in the Appendix.

Intermodulation

Dissimilar metals, finishes and discontinuities within a coax line structure give rise to intermodulation distortion (IMD). This is of particular concern in applications such as cellular base stations and antennas which require low levels of intermodulation.

SMA connectors were designed with this phenomena in mind and, as such, contain no ferrous or magnetic materials and utilize low porosity White Bronze plating.

For more information on Intermodulation, see the Application Note in the Appendix.



RF Coax Connectors

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)
	RG-402 (3.58 [.141])	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
Straight Cable Plugs & Jacks Solder Attachment	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 Solder 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)
	RG-402 (3.58 [.141])	12.4	1.07 + .01	2.0	2.0	10,000	1500	375	.03 √f(GHz)	1000	-(90-fGHz)
Straight Cable Plugs & Jacks Clamp Attachment	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)
	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)
Straight Cable Plugs & Jacks Crimp Attachment	RG-55, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	.06 √f(GHz)	670	-(60-fGHz)
	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)

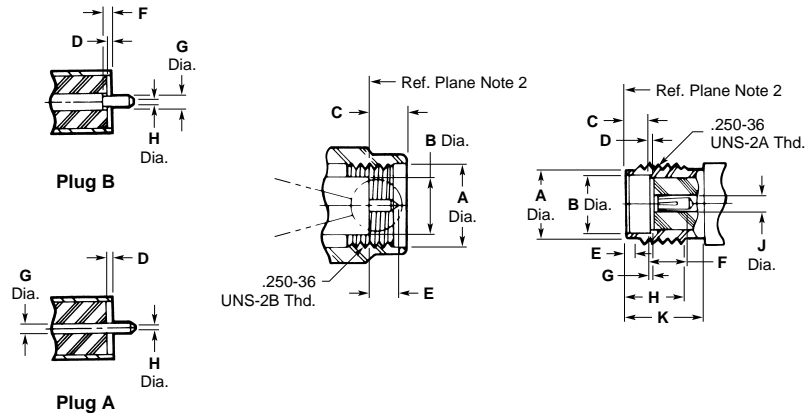
1. Maximum operating frequency of cable per MIL-C-17.

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	6.35 .250	—
B	—	4.59 .1808
C	—	3.43 .135
D	0.00 .000	0.25 .010
E	—	2.54 .100
F	0.00 .000	0.25 .010
G	0.90 .0355	0.94 .037
H	0.00 .000	0.38 .015

Jack

Dimension	Minimum	Maximum
A	5.28 .208	5.49 .216
B	4.60 .181	—
C	1.91 .075	1.98 .078
D	0.00 .000	0.25 .010
E	0.38 .015	1.43 .045
F	2.92 .115	—
G	0.00 .000	0.25 .010
H	4.32 .170	—
J	.124 .049	1.30 .051
K	5.54 .218	—

Notes:

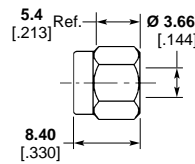
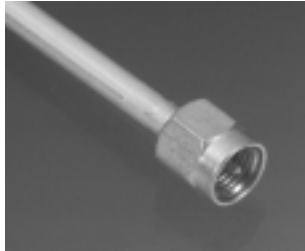
1. ID to meet VSWR and contact resistance when mated with 0.51 +.025/-.013 [.036 +.0010/-.0005] Dia. Pin.
2. When fully engaged, the two reference planes must coincide with metal to metal contact.
3. Metric equivalents (to the nearest 0.01mm) are given for general information only.



RF Coax Connectors

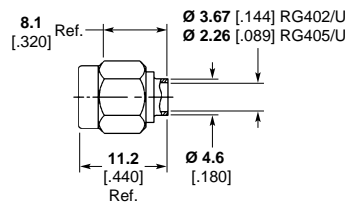
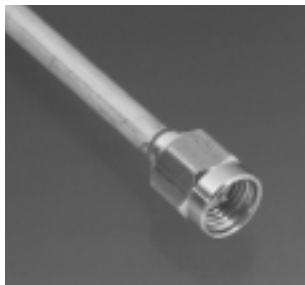
SMA Connectors (Continued) Direct Solder Attachment, Semi-Rigid Cable

Straight Cable Plug



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Pass.	No Center Contact	No Center Contact	1055420-1	408-4761	2001-7941-02	1050757-1

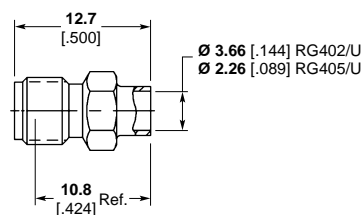
Straight Cable Plug



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Gold ¹	No	Solder	1055420-1	408-4764	2001-5003-02	1050525-1
405 (2.16 [.085])	Stainless, Gold ¹	No	Solder	1055420-1	408-4765	2001-7985-02	1050770-1
405 (2.16 [.085])	Brass, Gold	No	Solder	1055420-1	408-4765	2201-7985-09	1091921-1
402 (3.58 [.141])	Stainless, Gold ¹	No Center Contact	No Center Contact	N/A	—	2001-5031-02	1050542-1
405 (2.16 [.085])	Stainless, Gold ¹	No	Solder	1055420-1	—	2001-5032-02	1050548-1

¹Coupling nut is passivated stainless steel.

Straight Cable Jack



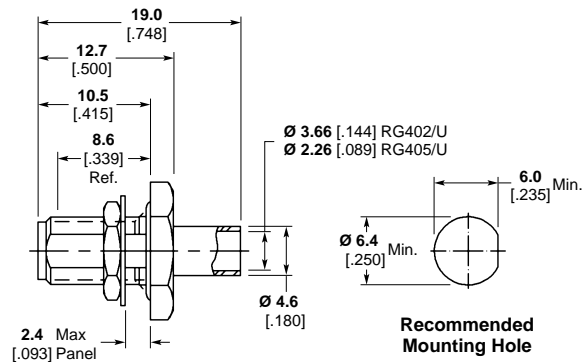
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	2002-5015-00	1050854-1
405 (2.16 [.085])	Stainless, Gold	No	Solder	1055420-1	408-4833	2002-5016-00	1050859-1



RF Coax Connectors

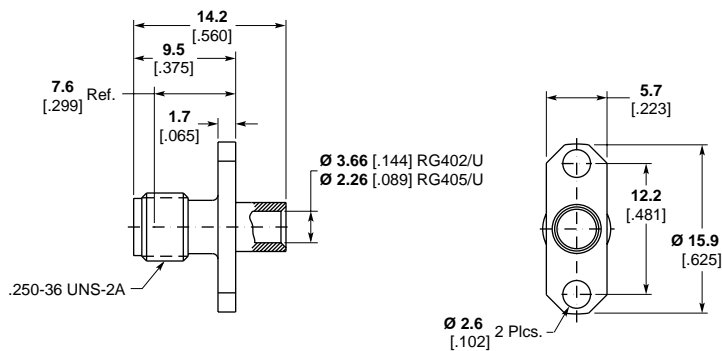
SMA Connectors (Continued) Direct Solder Attachment, Semi-Rigid Cable (Continued)

Bulkhead Cable Jack



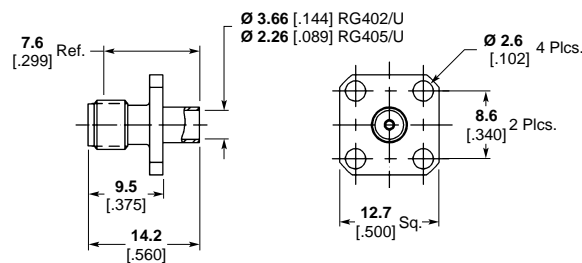
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [0.141])	Brass, Gold	No	Solder	1055420-1	408-4768	2204-7941-09	1082029-1

2 Hole Flange Mount Cable Jack



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [0.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	2006-5013-00	1051052-1
405 (2.16 [0.085])	Stainless, Gold	No	Solder	1055420-1	408-4883	2006-5010-00	1051046-1

4 Hole Flange Mount Cable Jack



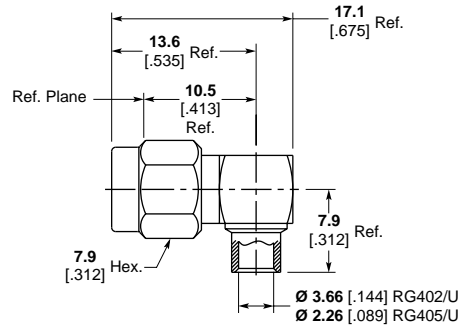
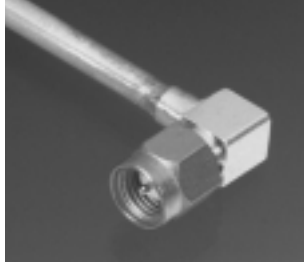
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [0.141])	Stainless, Gold	No	Solder	1055420-1	408-4767	2006-7941-00	1051081-1
405 (2.16 [0.085])	Stainless, Gold	No	Solder	1055420-1	408-4883	2006-7985-00	1051085-1



RF Coax Connectors

SMA Connectors (Continued) Semi-Rigid Cable

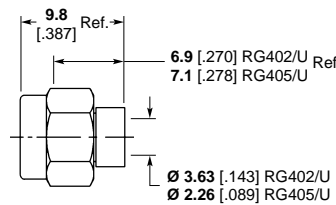
Right Angle Cable Plug, Direct Solder Attachment



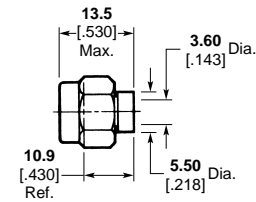
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Solder Assembly Kit Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Gold ¹	Epoxy	Solder	1055420-1	408-4831	2007-7941-02	1051151-1
405 (2.16 [.085])	Stainless, Gold ¹	Epoxy	Solder	1055420-1	408-4831	2007-7985-02	1051157-1
402 (3.58 [.141])	Brass, Gold	Mechanical	Solder	1055420-1	408-4831	2207-7941-09	1082030-1
405 (2.16 [.085])	Brass, Gold	Mechanical	Solder	1055420-1	408-4831	2207-7985-09	1088312-1

¹Coupling nut is passivated stainless steel.

Straight Cable Plug, Crimp



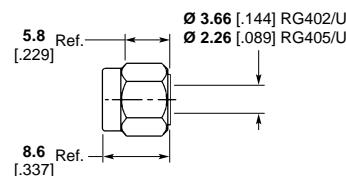
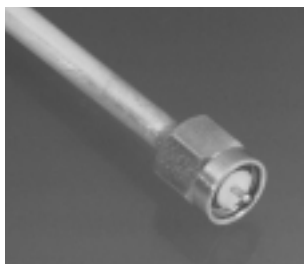
Part No. 1050598-1 and 1050740-1



Part No. 1050742-1

Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4695	2001-5385-02	1050598-1
402 (3.58 [.141])	Stainless, Pass.	No Center Contact	Solderless	1055835-1	408-4690	2001-7641-02	1050740-1
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4690	2001-7642-02	1050742-1

Straight Cable Plug — Low Profile, Crimp



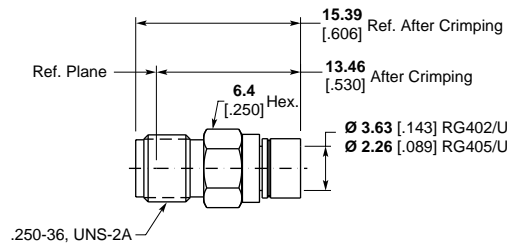
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Pass.	No Center Contact	No Center Contact	1055835-1	408-4693	2001-5363-02	1050591-1
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4696	2001-5395-02	1050602-1
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4697	2001-5443-02	1050611-1



RF Coax Connectors

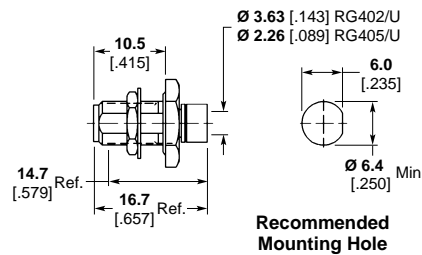
SMA Connectors (Continued) Semi-Rigid Cable

Straight Cable Jack, Crimp



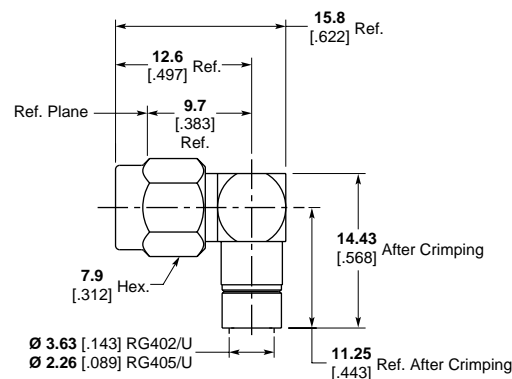
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4687	2002-7641-02	1050909-1
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4688	2002-7685-02	1050911-1

2 Hole Flange, Crimp



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4954	2004-7641-02	1051005-1
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4689	2004-7685-02	1051007-1

Right Angle Cable Plug, Crimp



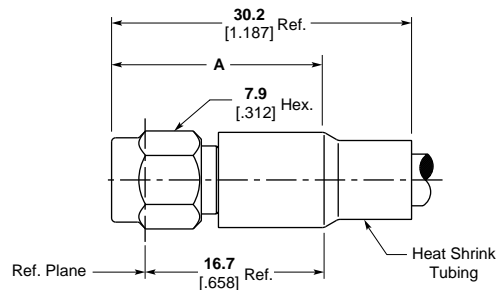
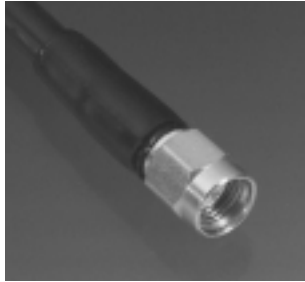
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
402 (3.58 [.141])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4691	2007-7641-02	1051145-1
405 (2.16 [.085])	Stainless, Pass.	Mechanical	Solderless	1055835-1	408-4692	2007-7685-02	1051147-1



RF Coax Connectors

SMA Connectors (Continued) Flexible Cable

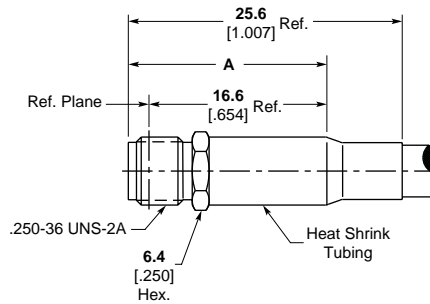
Straight Cable Plug, Solder



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold ¹	No	Solder	19.7 .775	408-4821	2031-5002-02	1051638-1
174, 188, 316	Stainless, Gold ¹	No	Solder	17.5 .690	408-4756	2031-5003-02	1051644-1

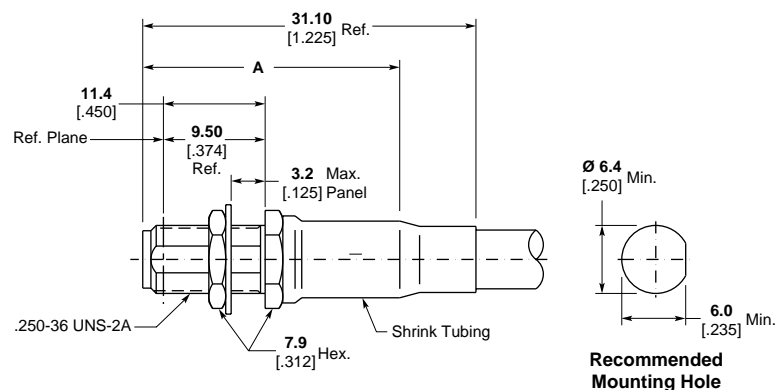
¹Coupling nut is passivated stainless steel.

Straight Cable Jack, Solder



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold	No	Solder	18.5 .730	408-4820	2032-5002-00	1051852-1

Bulkhead Cable Jack, Solder



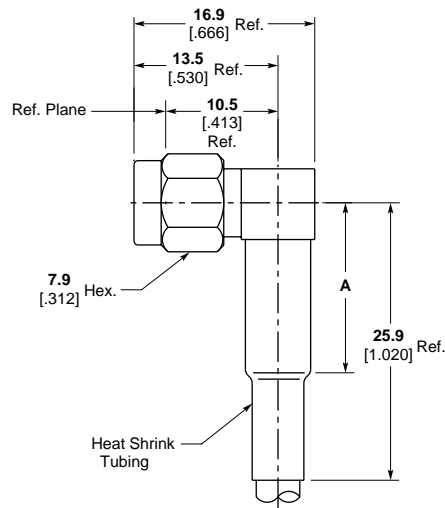
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
RG 55, 58, 141, 142, 300	Stainless, Gold	No	Solder	24.0 .945	408-4817	2034-5007-00	1051861-1
174, 188, 316	Stainless, Gold	No	Solder	21.0 .825	408-4817	2034-5008-00	1051942-1



RF Coax Connectors

SMA Connectors (Continued) Flexible Cable

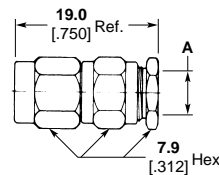
Right Angle Cable Plug, Solder



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Gold ¹	Yes	Solder	16.0 .630	408-4816	2037-5005-02	1052063-1
174, 188, 316	Stainless, Gold ¹	Yes	Solder	11.2 .440	408-4815	2037-5006-02	1052067-1

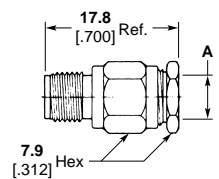
¹Coupling nut is passivated stainless steel.

Straight Cable Plug, Clamp



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
55, 58, 141, 142, 223, 303, 400	Stainless, Pass.	Yes	Solder	5.6 .220	408-4906	2001-7141-02	1050718-1
174, 188, 316	Stainless, Pass.	Yes	Solder	2.9 .116	408-4906	2001-7188-02	1050721-1

Straight Cable Jack, Clamp



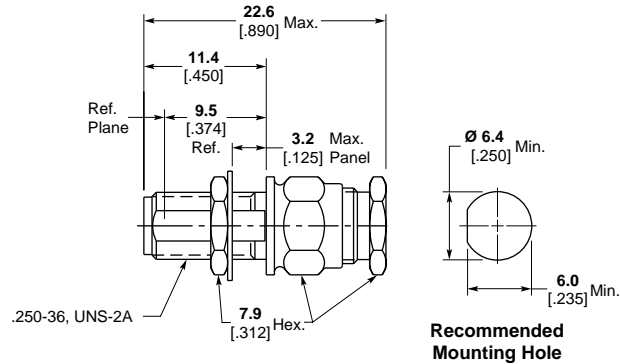
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Dimension A	Instruction Sheet	M/A-COM Model No.	Part No.
RG 55, 58, 141, 303	Stainless, Gold	Yes	Solder	5.6 .220	408-4906	2002-7141-00	1050900-1
174, 188, 316	Stainless, Pass.	Yes	Solder	2.9 .116	408-4906	2002-7188-02	1050903-1



RF Coax Connectors

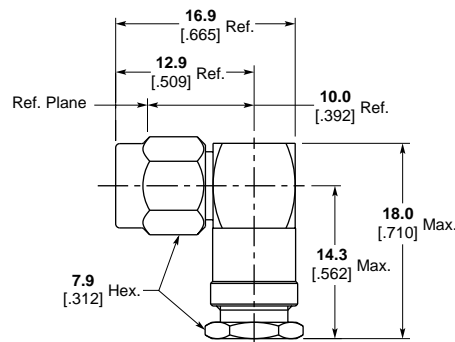
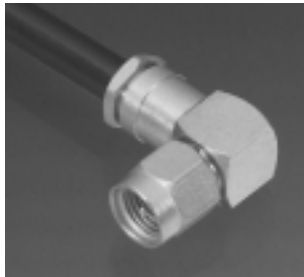
SMA Connectors (Continued) Flexible Cable

Bulkhead Feedthrough Cable Jack, Clamp



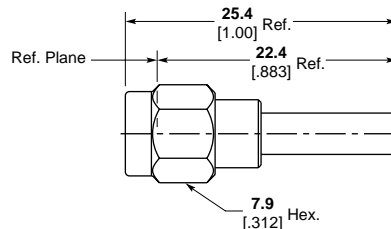
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Instruction Sheet	M/A-COM Model No.	Part No.
174, 188, 316	Stainless, Pass.	Yes	Solder	408-4704	2004-7188-02	1050996-1

Right Angle Cable Plug, Clamp



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Instruction Sheet	M/A-COM Model No.	Part No.
RG 55, 58, 141, 300	Stainless, Gold	Mechanical	Solder	408-4965	2007-7141-00	1051136-1
174, 188, 316	Stainless, Pass.	Mechanical	Solder	408-4965	2007-7188-02	1051140-1

Straight Cable Plug, Crimp

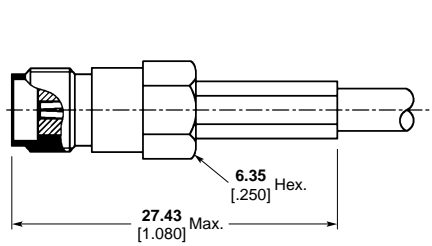
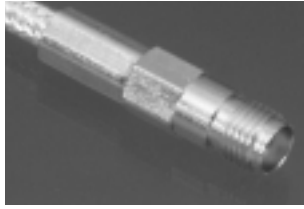


Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2831-7388-02	1056443-1
RD316	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1 ¹	408-4661	2831-7316-02	1056436-1
58, 141, 303	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2831-7358-02	1056441-1
55, 142, 223, 400	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2831-7341-02	1056438-1
174, 179, 187, 188, 316	Brass, White Bronze	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2231-7388-36	1082034-1

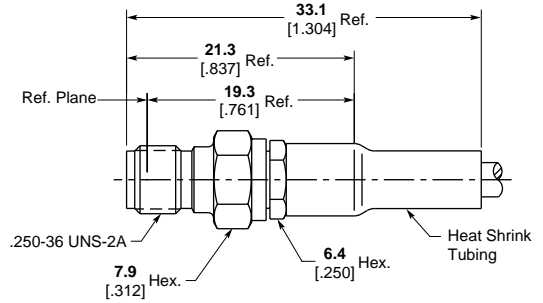
¹Use die 1055270-1 to crimp RD316 ferrule.
²Use die 1055880-1 to crimp center contact.

SMA Connectors (Continued)
Flexible Cable

Straight Cable Jack, Crimp



Style A

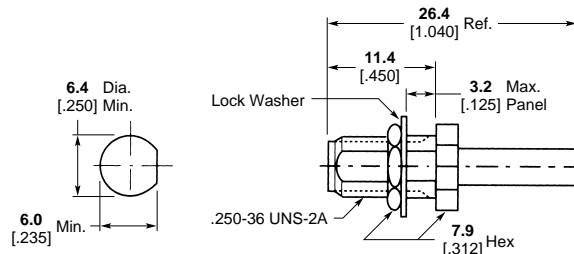


Style B

Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	Style	M/A-COM Model No.	Part No.
58	Brass, Nickel	Mechanical	Solder	¹	408-4032	A	—	447648-1
142	Brass, Nickel	Mechanical	Solder	¹	408-4032	A	—	447648-2
174, 316	Brass, Nickel	Mechanical	Solder	¹	408-4032	A	—	447648-3
55, 142, 223, 400	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4703	B	2032-5007-02	1051862-1
58, 141, 303	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4704	B	2032-5021-02	1051867-1
174, 188, 316	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4708	B	2032-5003-02	1051855-1
178, 196	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4806	B	2032-5026-02	1051869-1

¹Refer to Tyco Customer Print for tooling requirement. Daniel's/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	M/A-COM Model No.	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2834-7388-02	1056452-1
RD316	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1 ³	408-4661	2834-7316-02	1056445-1
58, 141, 303	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2834-7358-02	1056450-1
55, 142, 223, 400	Stainless, Pass.	Mechanical	Solder/Crimp ²	1055236-1	408-4661	2834-7341-02	1056447-1
142	Brass, Nickel	Mechanical	Crimp	¹	408-4032	—	448103-1
174, 188, 316	Brass, Nickel	Mechanical	Crimp	¹	408-4032	—	448103-2

¹Refer to Tyco Customer Print for tooling requirement. Daniel's/Mil Tooling used for contact and ferrule crimp.

²Use die 1055880-1 to crimp center contact.

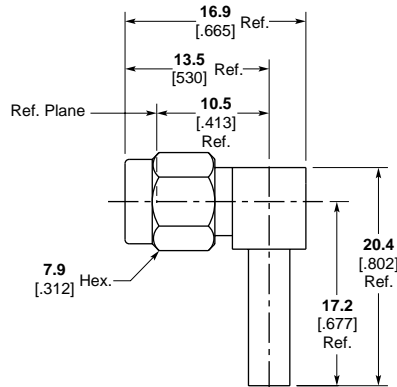
³Use die 1055270-1 to crimp RD316 ferrule.



RF Coax Connectors

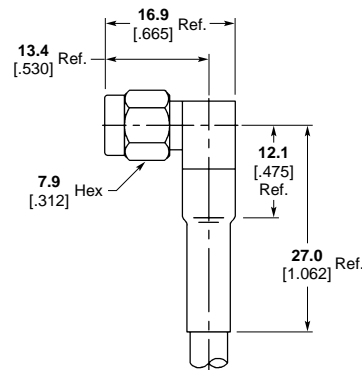
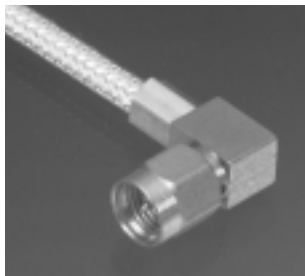
SMA Connectors (Continued) Flexible Cable

Right Angle Cable Plug, Crimp



Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
174, 179, 187, 188, 316	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	2837-7388-02	1056462-1
58, 141, 303	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	2837-7316-02	1056456-1
174, 188, 316	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	2837-7358-02	1056460-1
178, 196	Stainless, Pass.	Mechanical	Solder	1055236-1	408-4659	2837-7341-02	1056458-1

Right Angle Cable Plug, Crimp



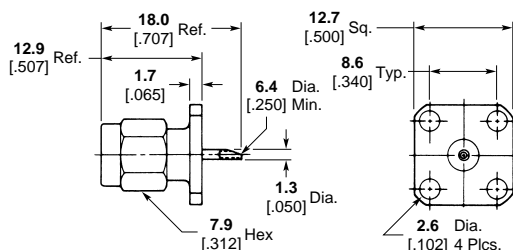
Cable Type RG/U	Body Material & Finish	Contact Captivation	Contact Attachment	Crimp Tooling Part No.	Instruction Sheet	M/A-COM Model No.	Part No.
55, 142, 223, 400	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4681	2037-5007-02	1052072-1
58, 141, 303	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4682	2037-5056-02	1052093-1
174, 188, 316	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4683	2037-5008-02	1052076-1
178, 196	Stainless, Pass.	Epoxy	Solder	1055236-1	408-4801	2037-5100-02	1052098-1



RF Coax Connectors

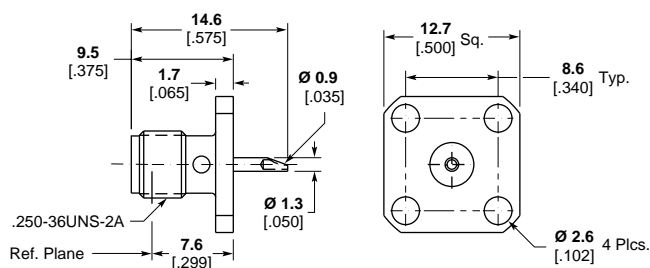
SMA Connectors (Continued) Panel Mount, Solder Pot Terminal

4 Hole Flange Mount Plug Receptacle



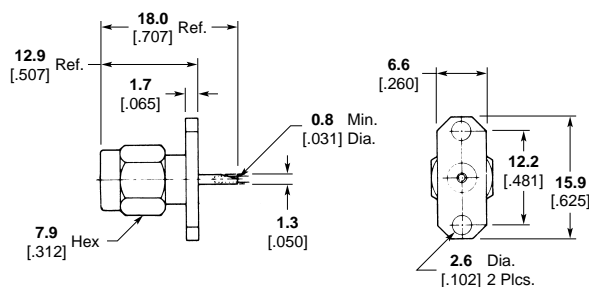
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	N/A	-65 to 125° C	2051-0000-02	1052324-1

4 Hole Flange Mount Jack Receptacle



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-0000-02	1052422-1

2 Hole Flange Mount Plug Receptacle



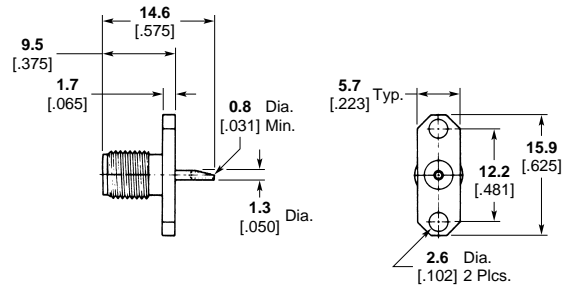
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2051-1350-02	1052343-1



RF Coax Connectors

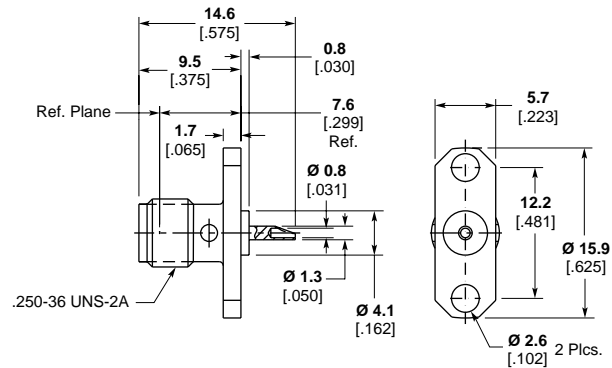
SMA Connectors (Continued) Panel Mount, Solder Pot Terminal (Continued)

2 Hole Flange Mount Jack Receptacle



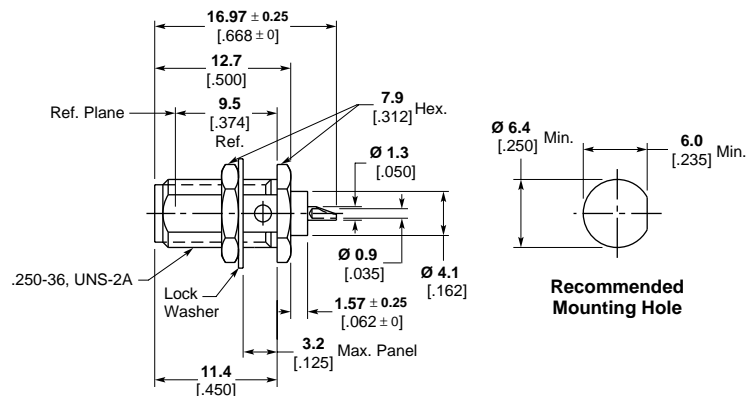
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1350-02	1052544-1

2 Hole Flange Mount Jack Receptacle



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1300-02	1052534-1

Bulkhead Feedthrough Jack Receptacle



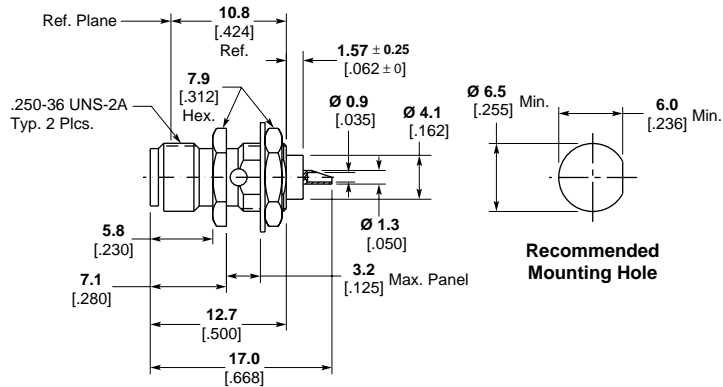
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2056-0000-02	1053073-1



RF Coax Connectors

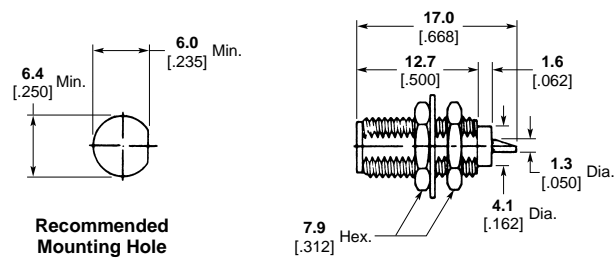
SMA Connectors (Continued) Panel Mount

Bulkhead Feedthrough Jack Receptacle, Solder Pot Terminal



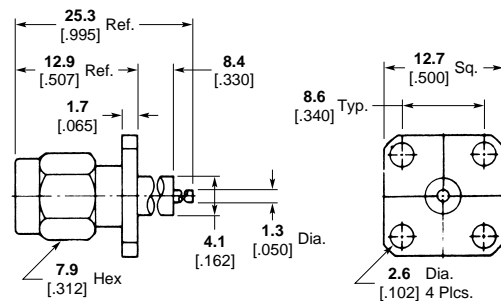
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2058-0000-02	1053134-1

Bulkhead Feedthrough Jack Receptacle, Solder Pot Terminal



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	N/A	-65 to 125° C	2056-5006-02	1053092-1

4 Hole Flange Mount Plug Receptacle, Straight Terminal



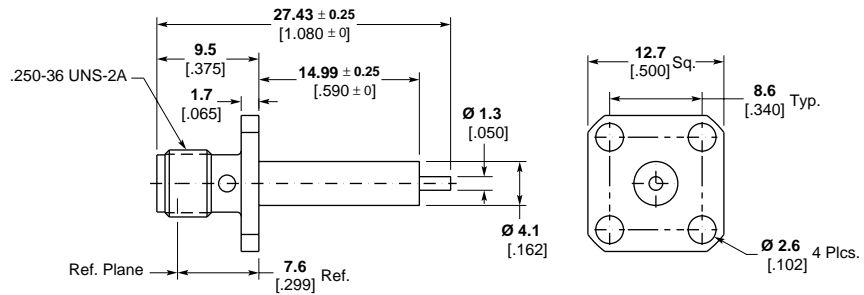
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2051-1201-02	1052339-1



RF Coax Connectors

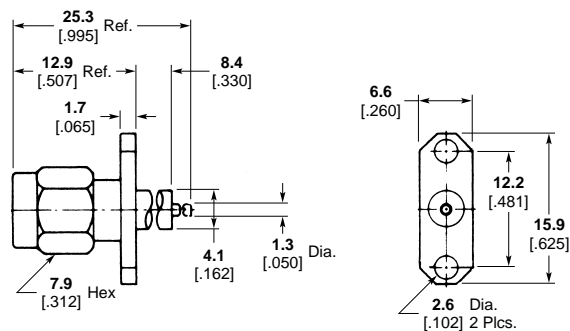
SMA Connectors (Continued) Panel Mount, Straight Terminal

4 Hole Flange Mount Jack Receptacle



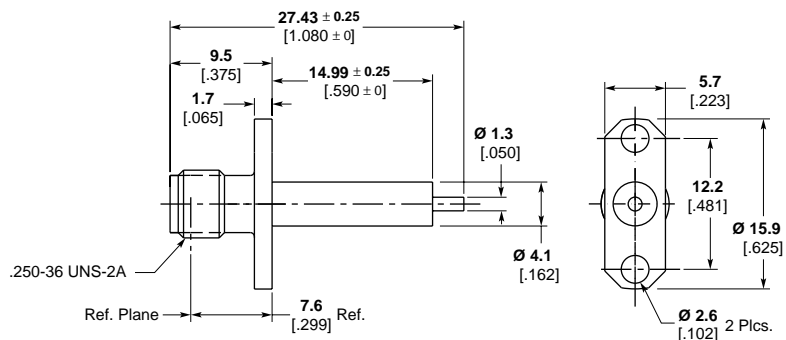
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	None	-(100-fGHz)	-65 to 165° C	2052-1200-02	1052518-1
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1201-02	1052523-1
Stainless, Gold	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1201-00	1052522-1

2 Hole Flange Mount Plug Receptacle



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2051-1352-02	1052349-1

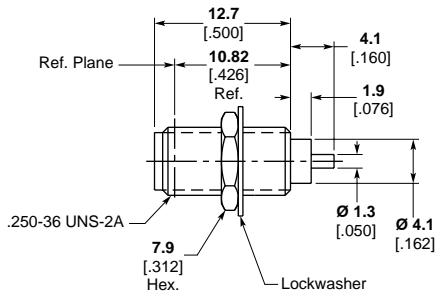
2 Hole Flange Mount Jack Receptacle



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	None	-(100-fGHz)	-65 to 165° C	2052-1351-02	1052548-1
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1352-02	1052552-1

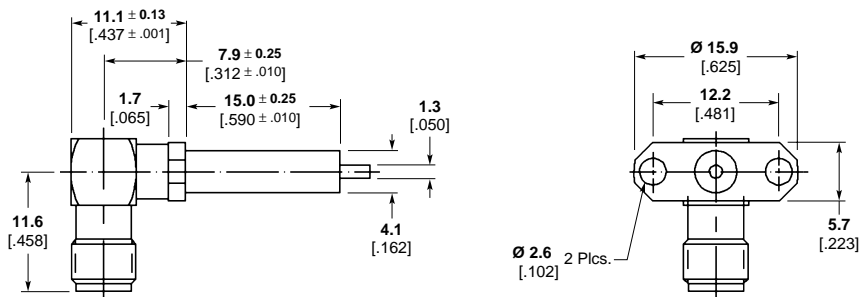
SMA Connectors (Continued)
Panel Mount, Straight Terminal

Bulkhead Feedthrough Jack Receptacle



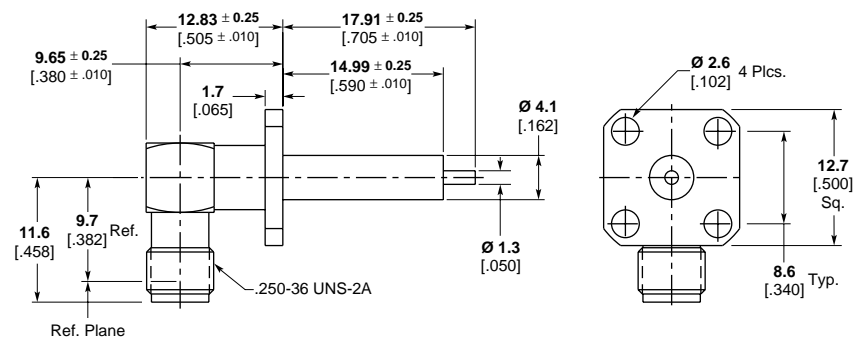
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2058-5029-02	1053222-1

2 Hole Flange Mount Right Angle Jack Receptacle



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	2054-1241-02	1052986-1

4 Hole Flange Mount Right Angle Jack Receptacle



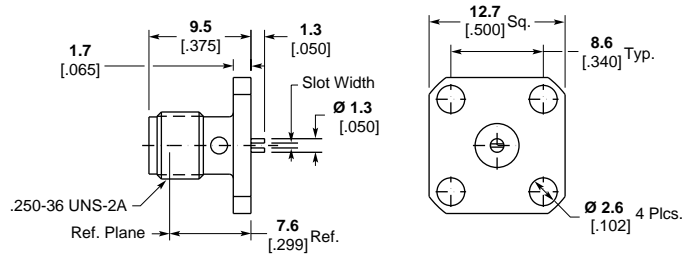
Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	2054-1201-02	1052978-1
Stainless, Passivated	Mechanical	-(90-fGHz)	-65 to 165° C	2054-1231-02	1052982-1



RF Coax Connectors

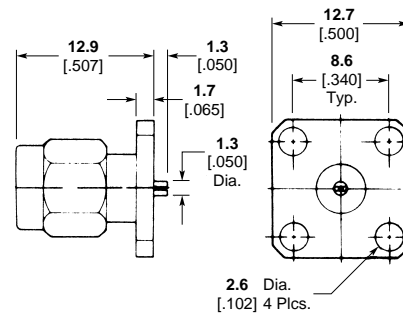
SMA Connectors (Continued) Panel Mount

4 Hole Flange Mount Jack Receptacle, Straight Terminal



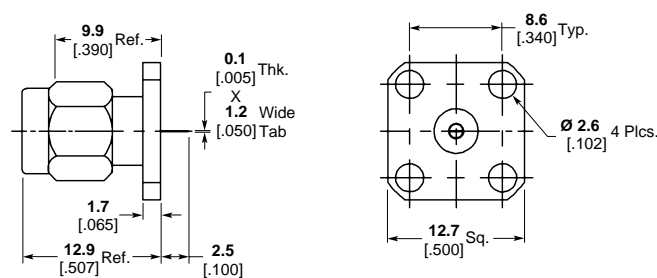
Body Material & Finish	Contact Captivation	Slot Width +.076/-.025 [+.003/-.001]	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	0.3 [.012]	-(60-fGHz)	-65 to 125° C	2052-1610-02	1052561-1
Stainless, Passivated	Epoxy	0.5 [.018]	-(60-fGHz)	-65 to 125° C	2052-1612-02	1052563-1

4 Hole Flange Mount Plug Receptacle, Slot Terminal



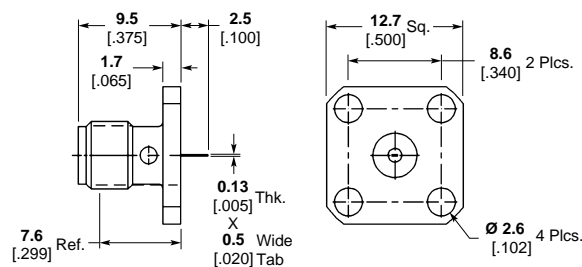
Body Material & Finish	Contact Captivation	Slot Width +.076/-.025 [+.003/-.001]	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	0.5 [.018]	-(60-fGHz)	-65 to 125° C	2051-1612-02	1052356-1

4 Hole Flange Mount Plug Receptacle, Tab Terminal



Body Material & Finish	Contact Captivation	Tab Width	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	1.3 [.050]	-(60-fGHz)	-65 to 125° C	2051-1618-02	1052360-1

4 Hole Flange Mount Jack Receptacle, Tab Terminal



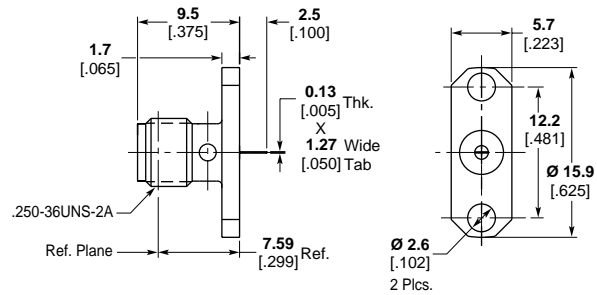
Body Material & Finish	Contact Captivation	Tab Width	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	.51 [.020]	-(60-fGHz)	-65 to 125° C	2052-5636-02	1052898-1



RF Coax Connectors

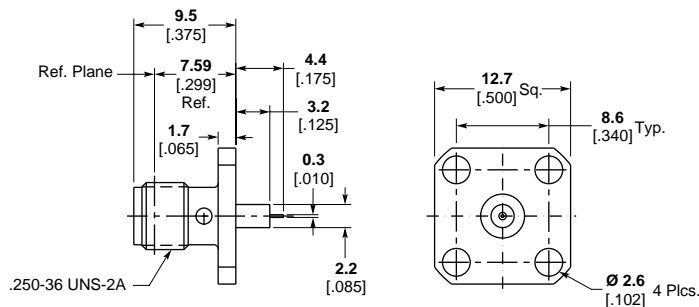
SMA Connectors (Continued)

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



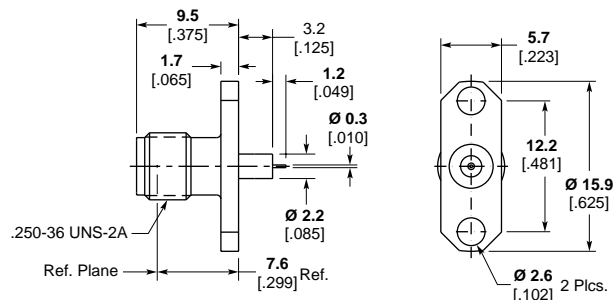
Body Material & Finish	Contact Captivation	Horizontal Tab	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	✓	-(60-fGHz)	-65 to 125° C	2052-1658-02	1052577-1

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



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-1215-02	1052528-1

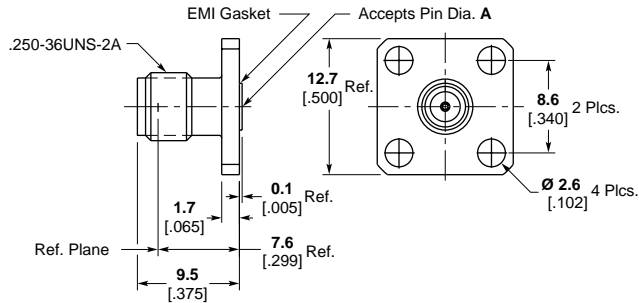
2 Hole Flange Mount Jack Receptacle, for Microstrip Transmission Line Circuits



Body Material & Finish	Contact Captivation	RF Leakage db min.	Temperature Range	M/A-COM Model No.	Part No.
Stainless, Passivated	Epoxy	-(60-fGHz)	-65 to 125° C	2052-5674-02	1052902-1

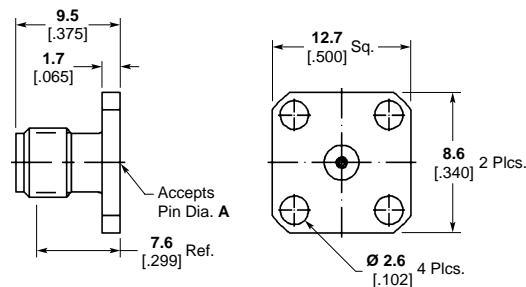
SMA Connectors (Continued)
Field Replaceable Hermetic Launchers

4 Hole Flange Mount Jack Receptacle with EMI/RFI Gasket



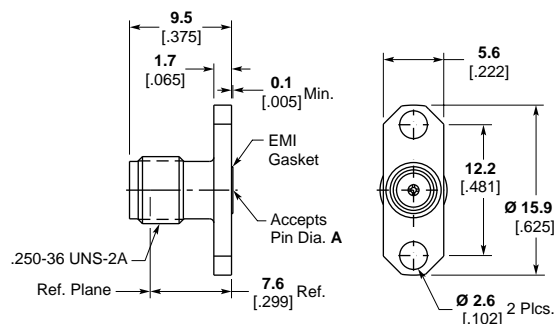
Material & Finish	Captivation	Pin Diameter A	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	.30 [.012]	2052-3350-02	1052622-1
Stainless, Passivated	Mechanical	.38 [.015]	2052-3500-02	1052684-1
Stainless, Passivated	Mechanical	.46 [.018]	2052-3352-02	1052625-1

4 Hole Flange Mount Jack Receptacle without EMI/RFI Gasket



Material & Finish	Captivation	Pin Diameter A	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	.51 [.020]	2052-3362-02	1052649-1
Stainless, Passivated	Mechanical	.91 [.036]	2052-3358-02	1052643-1

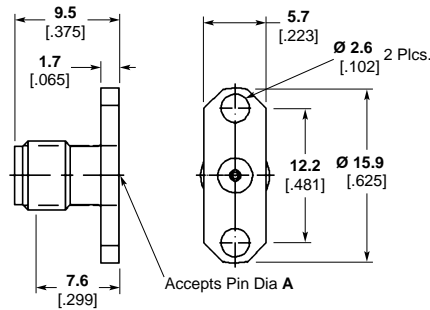
2 Hole Flange Mount Jack Receptacle with EMI/RFI Gasket



Material & Finish	Captivation	Pin Diameter A	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	.30 [.012]	2052-3354-02	1052628-1
Stainless, Passivated	Mechanical	.38 [.015]	2052-3302-02	1052689-1
Stainless, Passivated	Mechanical	.46 [.018]	2052-3356-02	1052634-1

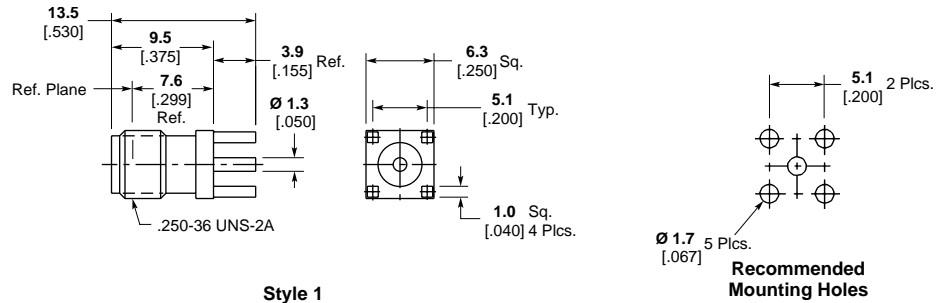
SMA Connectors (Continued)

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

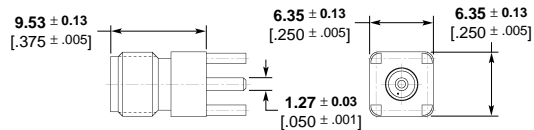


Material & Finish	Captivation	Pin Diameter A	M/A-COM Model No.	Part No.
Stainless, Passivated	Mechanical	.51 [0.020]	2052-3363-02	1052652-1
Stainless, Passivated	Mechanical	.91 [0.036]	2052-3359-02	1052646-1

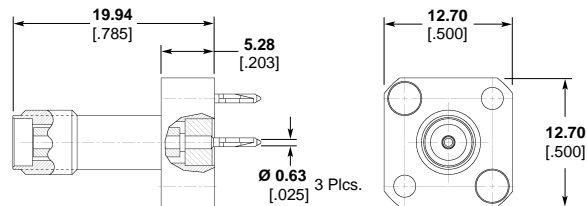
PC Board Mount Vertical Jack



Style 1



Style 2



Style 3

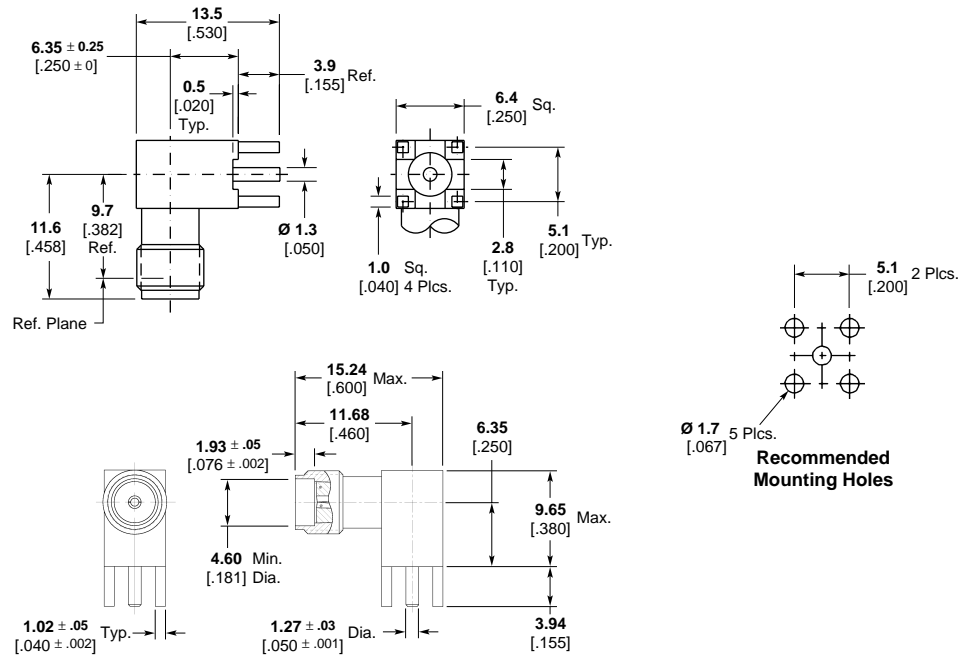
Material & Finish	Style No.	M/A-COM Model No.	Part No.
Stainless, Gold	1	2062-0000-00	1053354-1
Brass, Gold	1	2262-0000-09	1223104-1
Brass, Gold	2	—	221789-1
Brass, Gold	2	—	221789-3
Brass, Nickel Plate	3	—	1274096-1



RF Coax Connectors

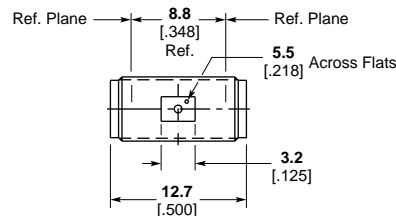
SMA Connectors (Continued)

Right Angle Jack, PC Board Mount



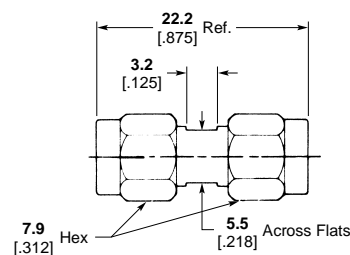
Material & Finish	M/A-COM Model No.	Part No.
Stainless, Gold	2064-0000-00	1053378-1
Brass, Gold	2264-0000-09	1091559-1
Stainless, Gold	—	221790-1

In-Series Adapter, Jack to Jack



Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-18.0GHz	Stainless, Gold	Epoxy*	2080-0000-00	1053488-1

In-Series Adapter, Plug to Plug

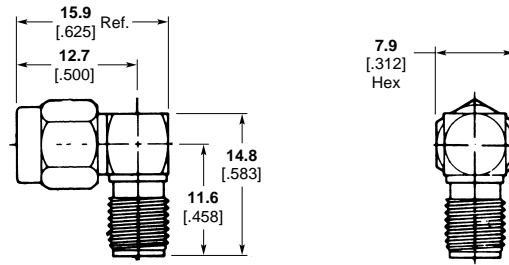


Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy*	2081-0000-02	1053635-1

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

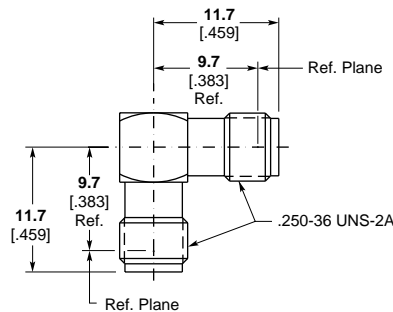
SMA Connectors (Continued)

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



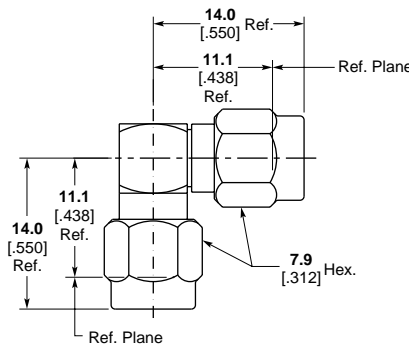
Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-12.4GHz	Stainless, Passivated	Mechanical	2088-0000-02	1055065-1

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



Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-12.4GHz	Stainless, Passivated	Mechanical	2086-0000-02	1055018-1

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



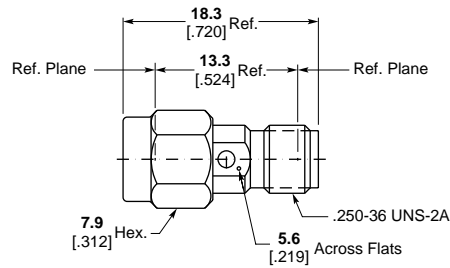
Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-18.0GHz	Stainless, Passivated	Mechanical	2087-1230-02	1055047-1



RF Coax Connectors

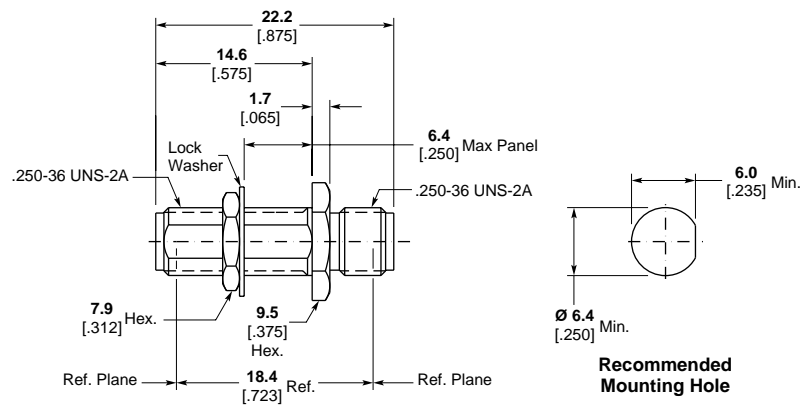
SMA Connectors (Continued)

In-Series Adapter, Jack to Plug, Connector Saver



Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy	2082-5133-02	1054426-1

In-Series Adapter, Jack to Jack, Bulkhead Feedthrough



Frequency	Material & Finish	Captivation	M/A-COM Model No.	Part No.
DC-18.0GHz	Stainless, Passivated	Epoxy*	2084-0000-02	1054869-1

*Mechanically captivated version available. Please consult AMP.