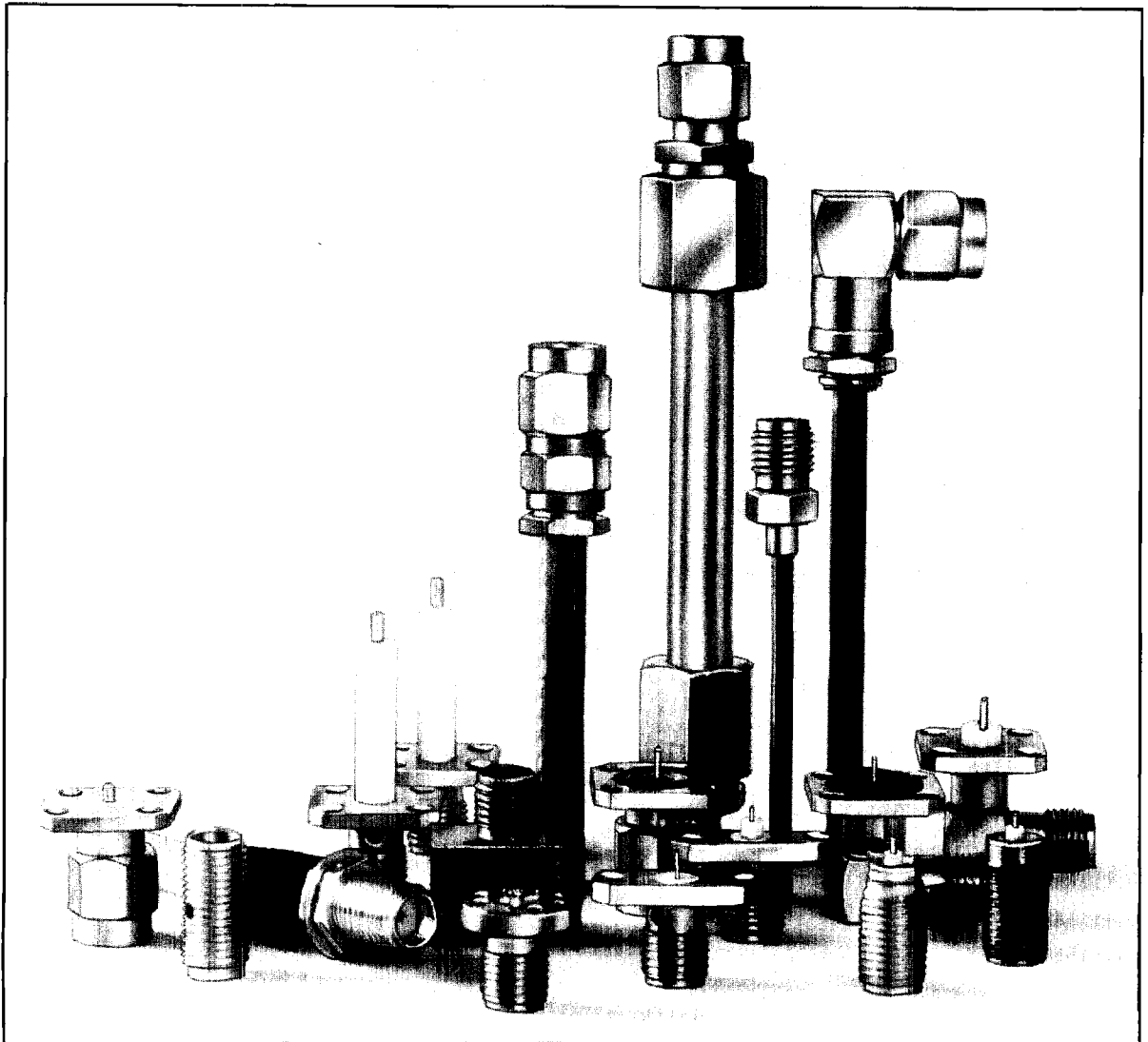


# OSM (SMA)

## Miniature Coaxial Connectors



The OSM® or SMA series connector was developed to fill the need for a semi-precision, 3mm high frequency connector with repeatable electrical performance from dc-18 GHz and beyond. These moderately priced subminiature connectors are ideal for use in microwave as well as low frequency applications where size, performance and cost are critical considerations.

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### Upper Operating Frequency

The relatively small size and low VSWR of the OSM connector, compared to other commonly used microwave connectors, has contributed measurably to the miniaturization of microwave components and assemblies. Most OSM connectors allow operation at all frequencies through 25.0 GHz. The OSM extended frequency series allow operation through 27.0 GHz.

### Construction

Choice of materials is an important consideration. All shell and body parts are made of stainless steel for ruggedness and long life. The dielectric is solid PTFE fluorocarbon. The center contacts are made of beryllium copper, gold plated. Dielectric and center contact capturing (when used) is consistent with obtaining low VSWR.

The resulting connector is mechanically very rugged and durable. It has been found to be relatively free of noise under severe vibration, and has been used on operating equipment subjected to shock of 70,000 g.

The housings on standard OSM connector models are available in either passivated stainless or gold plated finish. The passivated stainless finish connectors also exhibit exceptional characteristics to withstand severe environments such as salt spray, humidity and moisture resistance. The passivated finish complements most components, instruments and systems.

### Power Rating

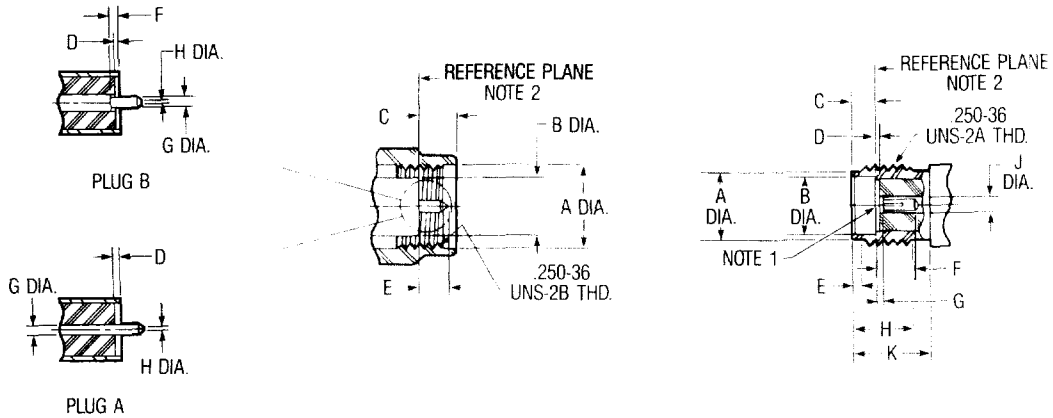
The maximum peak power is determined by voltage breakdown. At sea-level conditions the OSM connector as described in the interface mating dimension drawing, should satisfactorily handle 20kW peak pulse power, used on .141-inch semi-rigid cable. For all-altitude operation, with critical altitude occurring somewhere around 70,000 ft., peak power should be derated by a factor of approximately 20. It is important to note that in considering high peak power application, the connector/cable attachment is equally as important as the connector mating interface.

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# OSM (SMA)

## Interface Mating Dimensions



### PLUG

Letter	Inches (Millimeters) <sup>3</sup>	
	Minimum	Maximum
A	.250 (6.35)	-
B	-	.1808 (4.59)
C	-	.135 (3.43)
D	.000 (0.00)	.007 (0.25)
E	-	.100 (2.54)
F	.000 (0.00)	.010 (0.25)
G	.0355 (0.90)	.0370 (0.94)
H	.000 (0.00)	.015 (0.38)

### JACK

Letter	Inches (Millimeters) <sup>3</sup>	
	Minimum	Maximum
A	.208 (5.28)	.216 (5.49)
B	.1810 (4.60)	-
C	.075 (1.91)	.078 (1.98)
D	.000 (0.00)	.007 (0.25)
E	.015 (0.38)	.045 (1.43)
F	.115 (2.92)	-
G	.000 (0.00)	.010 (0.25)
H	.170 (4.32)	-
J	.049 (1.24)	.051 (1.30)
K	.218 (5.54)	-

+ .0010  
- .0005

1. ID to meet VSWR and contact resistance when mated with .036 (0.91 mm) 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.

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# OSM (SMA)

## Specifications

Requirement	MIL-C-39012 Applicable Paragraph	Detail
<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-1457.
Finish	3.3.1	Center contacts shall be gold plated to a min. thickness of .00005 inch in accordance with MIL-G-45204, Typ 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.
<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 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.
<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 .0375 min. dia., .030-.045 deep, insertion force 3 lbs. max. with .0370 min. dia. pin, withdrawal force 1 oz. min. with .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.

# OSM (SMA)

## Electrical Performance

Connector Type	Cable	Frequency Max. (GHz)	VSWR x (GHz)	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 2001 Series	RG-402 (.141)	Note 1	1.02 + .005	N/A	2.0	10,000	N/A	250	N/A	670	(-90-1GHz)
Straight Cable Plugs & Jacks Solder Attachment 2001, 2002, 2004, 2006, 2031, 2032, 2034 Series	RG-405 (.085)	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-90-1GHz)
	RG-402 (.141)	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	03 √f (GHz)	1000	(-90-1GHz)
	.141 Microporous	18.0	1.05 + .005	2.0	2.0	10,000	1500	375	03 √f (GHz)	1000	(-90-1GHz)
	RG-401 (.250)	18.0	1.07 + .007	2.0	2.0	10,000	1500	375	03 √f (GHz)	1000	(-90-1GHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	06 √f (GHz)	500	(-60-1GHz)
Straight Cable Plugs & Jacks Solder Clamp Attachment 2001, 2002, 2004, 2006 Series	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	(-60-1GHz)
	RG-405 (.085)	12.4	1.10 + .015	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-90-1GHz)
	RG-402 (.141)	12.4	1.07 + .01	2.0	2.0	10,000	1500	375	03 √f (GHz)	1000	(-90-1GHz)
Straight Cable Plugs & Jacks Clamp Attachment 2001, 2002, 2004, 2006 Series	RG-55, 58, 141, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	06 √f (GHz)	670	(-60-1GHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	06 √f (GHz)	500	(-60-1GHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	(-60-1GHz)
Straight Cable Plugs & Jacks Crimp Attachment 2031, 2032, 2034, 2036 Series	RG-55, 142, 223, 400	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	06 √f (GHz)	670	(-60-1GHz)
	RG-58, 141, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	06 √f (GHz)	670	(-60-1GHz)
	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	06 √f (GHz)	500	(-60-1GHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	(-60-1GHz)
	RG-178, 196	Note 1	1.2 + .02	2.0	2.0	10,000	500	125	06 √f (GHz)	335	(-60-1GHz)
	RG-401 (.250)	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	05 √f (GHz)	1000	-70 dB min.
Straight Cable Plugs & Jacks Compression Clamp Attachment 2001, 2002 Series	.250 Microporous	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	05 √f (GHz)	1000	-70 dB min.
	250 3 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	05 √f (GHz)	1000	-70 dB min.
	250 5 Spline	18.0	1.07 + .01	2.0	2.0	10,000	1500	375	05 √f (GHz)	1000	-70 dB min.
	RG-405 (.085)	12.4	1.18 + .015	2.0	2.0	10,000	1000	250	04 √f (GHz)	670	(-90-1GHz)
Right Angle Cable Plugs Solder Attachment 2007, 2037 Series	RG-405 (.085)	18.0	1.18 + .015	2.0	2.0	10,000	1000	250	04 √f (GHz)	670	(-90-1GHz)
	RG-402 (.141)	12.4	1.15 + .015	2.0	2.0	10,000	1500	325	04 √f (GHz)	1000	(-90-1GHz)
	RG-402 (.141)	18.0	1.10 + .010	2.0	2.0	10,000	1500	250	05 √f (GHz)	1000	(-90-1GHz)
	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	(-60-1GHz)
	RG-174, 188, 316	Note 1	1.15 + .02	2.0	2.0	10,000	750	190	07 √f (GHz)	500	(-60-1GHz)
	RG-55, 142, 223, 400	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	07 √f (GHz)	670	(-60-1GHz)
	RG-58, 141, 303	Note 1	1.15 + .02	2.0	2.0	10,000	1000	250	07 √f (GHz)	670	(-60-1GHz)
Right Angle Cable Plugs Crimp Attachment 2037 Series	RG-174, 188, 316	Note 1	1.18 + .02	2.0	2.0	10,000	750	190	07 √f (GHz)	500	(-60-1GHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	(-60-1GHz)
	RG-178, 196	Note 1	1.25 + .025	2.0	2.0	10,000	500	125	07 √f (GHz)	335	(-60-1GHz)
	RG-55, 58, 141, 142, 223, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-60-1GHz)
Right Angle Cable Plugs Clamp Attachment 2007 Series	RG-174, 188, 316	Note 1	1.15 + .01	2.0	2.0	10,000	750	190	08 √f (GHz)	500	(-60-1GHz)
	RG-180, 195	Note 1	-	2.0	2.0	10,000	750	190	-	500	(-60-1GHz)
	RG-55, 58, 141, 142, 223, 303	Note 1	1.10 + .005	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-60-1GHz)
Flange Mount Plugs & Jacks Panel or Bulkhead Mount 2052, 2051 Series	Non-Captured	18.0	1.03 + .004	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-100-1GHz)
	Epoxy Captured	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-60-1GHz)
	Mechanical Capture	18.0	1.04 + .004	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-100-1GHz)
Bulkhead Feedthrough Jacks 2056, 2058 Series	Epoxy Captured	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	04 √f (GHz)	670	(-60-1GHz)
	Mechanical Capture	18.0	1.07 + .010	2.0	2.0	10,000	1000	250	04 √f (GHz)	670	(-100-1GHz)
Right Angle Flange Mount Jacks 2054 Series	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-90-1GHz)
	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-90-1GHz)
Printed Circuit Board Mount Straight Terminal 2062 Series	N/A	18.0	N/A	2.0	2.0	10,000	1000	250	N/A	670	N/A
Right Angle Printed Circuit 2064 Series	N/A	12.4	N/A	2.0	2.0	10,000	1000	250	N/A	670	N/A
End Launch Stripline Circuit 2070, 2071 Series	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-60-1GHz)
Surface Launch Stripline Circuit 2066, 2067 Series	N/A	18.0	1.05 + .005	2.0	2.0	10,000	1000	250	03 √f (GHz)	670	(-60-1GHz)
Right Angle Surface Launch Stripline Circuit 2068 Series	N/A	12.4	1.15 + .015	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-60-1GHz)
	N/A	18.0	1.07 + .015	2.0	2.0	10,000	1000	250	08 √f (GHz)	670	(-60-1GHz)

Note 1: Maximum operating frequency of cable per MIL-C-17.  
 2: Specifications do not apply to hermetic or compression crimp connectors.

# OSM (SMA)

## For Semi-Rigid Cable

OSM Miniature connectors for semi-rigid cable represent the industry's largest selection of custom and standard products for RF and microwave applications using semi-rigid cable. Connectors are available for all cable sizes.

The direct solder attachment produces highly reliable high performance cable assemblies especially suited for microwave system applications. The solder attachment is suitable for applications ranging from lab work to full scale mechanized production.

There are four basic approaches to the OSM designs. Connectors such as the 2001-5009-02, 2001-5032-02 and 2001-5119-02 are provided with separate solder-on contacts of gold plated beryllium copper. Center contact attachment to the cable inner conductor is made prior to cable attachment. This contact then provides a highly reliable wear resistant center conductor for applications where repeated matings will occur. For connectors such as the 2001-7585-02, 2002-7541-00 and 2004-7585-00, a

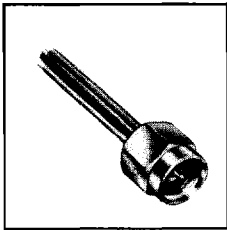
heat treated spring finger socket receptacle contact is mechanically captured to the connector assembly allowing the user to point the inner conductor of the cable and plug it into a wear resistant center contact of the connector. Connectors such as the 2001-7941-02, 2001-5025-02 and 2001-5031-02 utilize the trimmed and pointed cable inner conductor as the connector center contact pin.

In addition, there is a complete series of solderless compression crimp connectors where attachment to the outer jacket of the cable is accomplished using unique crimp tools.

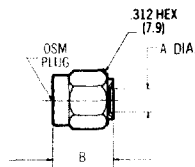
All connectors supplied with center contacts are supported by a PTFE fluorocarbon dielectric.

All plug connectors can be provided with a variety of coupling nut arrangements including retractable, low profile and wire lock styles.

### .085 and .141 Dia. • Direct Solder Attachment

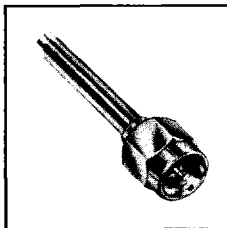


**Straight Cable Plug**

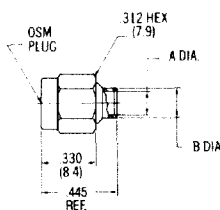


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	2001-7941-02 Without Contact	2001-5009-02 With Contact
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.330 Ref. (8.4)	.440 Ref. (11.2)

Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Straight Cable Plug**

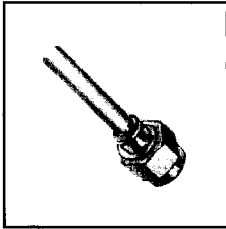


Cable	RG 402/U (.141)	RG 405/U (.085)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE	Solid PTFE
Part Number	2001-5031-02 Without Contact	2001-5032-02 With Contact	2001-7585-02 With Mechanically Captured Contact
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 Ref. (4.6)	.120 Ref. (3.0)	.120 Ref. (3.0)

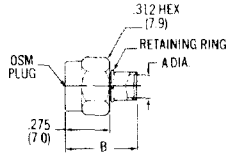
Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

# OSM (SMA) For Semi-Rigid Cable

## .085 and .141 Dia. • Direct Solder Attachment

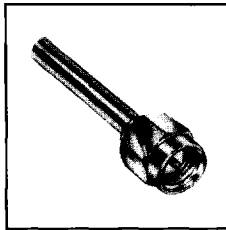


**Straight Cable Plug  
Retractable Coupling Nut**

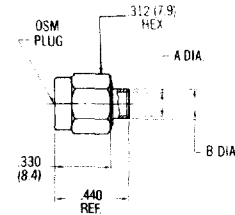


Cable	RG 402/U (.141)	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE	Solid PTFE
Part Number	2001-5025-02 Without Contact	2001-5068-02 Without Contact	2001-5119-02 With Contact
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.440 Ref. (11.2)	.330 Ref. (8.4)	.530 Ref. (13.5)

Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

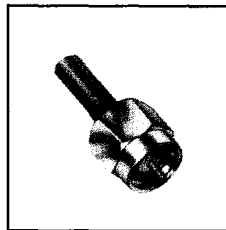


**Straight Cable Plug  
With Center Contact**

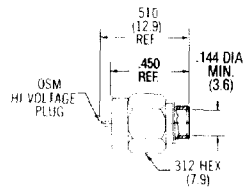


Cable	RG 402/U (.141)	.141	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Microporous PTFE	Solid PTFE
Part Number	2001-5003-02	2001-7943-02	2001-7985-02
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.180 Ref. (4.6)	.120 Ref. (3.0)

Finish: Passivated stainless steel. For gold plated coupling nut, change the Part Number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



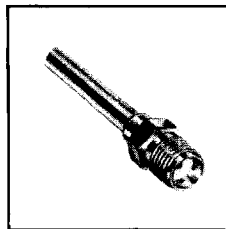
**Straight Cable Plug  
High Voltage**



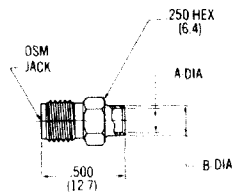
Cable	RG 402/U (.141)
Cable Dielectric	Solid PTFE
Part Number	2001-5246-00

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

Interface does not conform to catalog dimensions or MIL-STD 348



**Straight Cable Jack**



Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	2002-5015-00 With Contact	2002-5016-00 With Contact
	2002-7541-00 With Mechanically Captured Contact	2002-7585-00 With Mechanically Captured Contact
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 Ref. (4.6)	.120 Ref. (3.0)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

\* Overall length of 2002-7585-00 is .625

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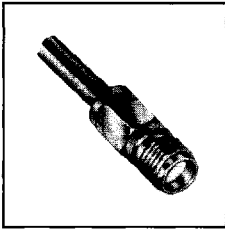
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Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

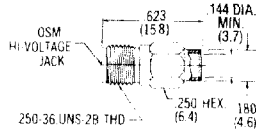
# OSM (SMA)

## For Semi-Rigid Cable

### .085 and .141 Dia. • Direct Solder Attachment

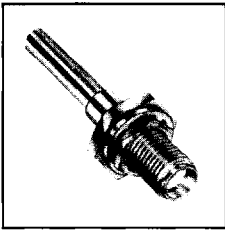


**Straight Cable Jack**  
High Voltage

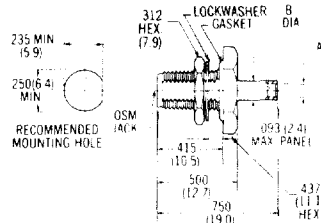


<b>Cable</b>	RG 402/U (.141)
<b>Cable Dielectric</b>	Solid PTFE
<b>Part Number</b>	<b>2002-5070-00</b>

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Interface does not conform to catalog dimensions or MIL-STD-348

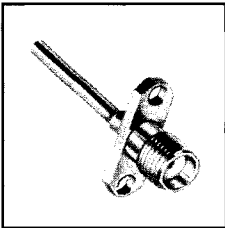


**Bulkhead Feedthrough Cable Jack**

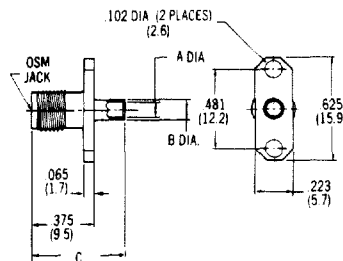


<b>Cable</b>	RG 402/U (.141)	RG 405/U (.085)
<b>Cable Dielectric</b>	Solid PTFE	Solid PTFE
<b>Part Number</b>	<b>2004-7941-00</b>	<b>2004-7985-00</b>
	With Mechanically Captured Contact	With Mechanically Captured Contact
<b>Dim. A</b>	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
<b>Dim. B</b>	.180 (4.6)	.120 (3.0)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

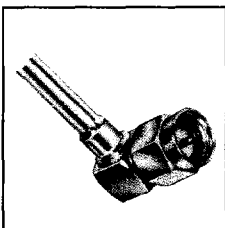


**Flange Mount Cable Jack**

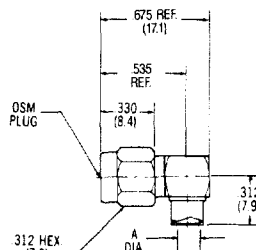


<b>Cable</b>	RG 402/U (.141)	RG 405/U (.085)
<b>Cable Dielectric</b>	Solid PTFE	Solid PTFE
<b>Part Number</b>	<b>2006-5013-00</b>	<b>2006-5010-00</b>
<b>Dim. A</b>	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
<b>Dim. B</b>	.180 (4.6)	.120 (3.0)
<b>Dim. C</b>	.560 (14.2)	.500 (12.7)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Right Angle Cable Plug\***  
DC-12.4 GHz



<b>Cable</b>	RG 402/U (.141)	RG 405/U (.085)
<b>Cable Dielectric</b>	Solid PTFE	Solid PTFE
<b>Part Number</b>	<b>2007-7941-02</b>	<b>2007-7985-02</b>
<b>Dim. A</b>	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)

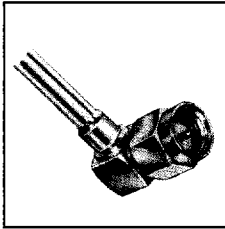
Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
\*Contact captivation per U.S. patent number 3,292,117.



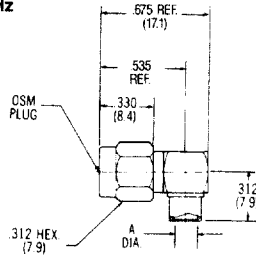
# OSM (SMA)

For Semi-Rigid Cable

## .085 and .141 Dia. • Direct Solder Attachment

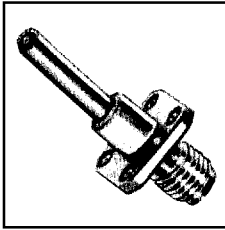


**Right Angle Cable Plug\***  
DC-18.0 GHz

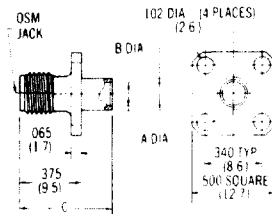


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2007-5054-02</b>	<b>2007-5055-02</b>
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)

Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
\*Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Cable Jack**



Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2006-7941-00</b>	<b>2006-5012-00</b>
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)
Dim. C	.560 (14.2)	.500 (12.7)

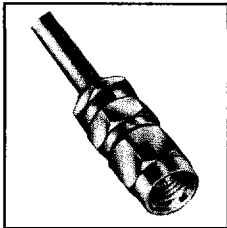
Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

# OSM (SMA)

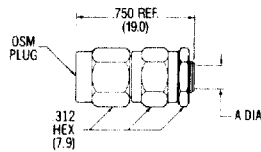
## For Semi-Rigid Cable

The solder clamp attachment is a field replaceable solder type attachment to an inside bushing which will allow cable rotation and locking in any angular position. This provides for simple cable attachment with packaging flexibility.

### .085 and .141 Dia. • Solder Clamp Attachment

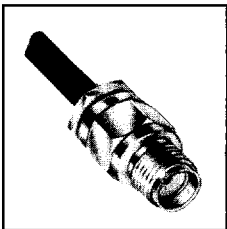


**Straight Cable Plug**  
DC-12.4 GHz

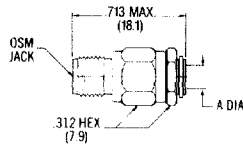


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	2001-7841-02	2001-7885-02
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)

Finish: Passivated stainless steel. For gold plate, change the part number suffix from -02 to -00. The solder sleeve is gold plated in all cases. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

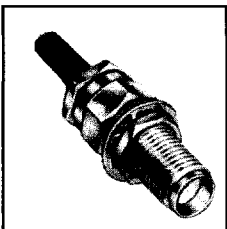


**Straight Cable Jack**  
DC-12.4 GHz

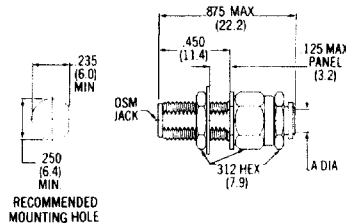


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	2002-7841-02	2002-7885-02
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)

Finish: Passivated stainless steel. For gold plate, change the part number suffix from -02 to -00. The solder sleeve is gold plated in all cases. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.



**Bulkhead Feedthrough Cable Jack**  
DC-12.4 GHz



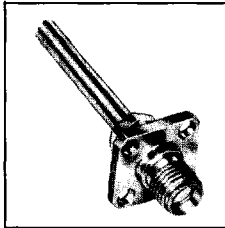
Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	2004-7841-02	2004-7885-02
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)

Finish: Passivated stainless steel. For gold plate, change the part number suffix from -02 to -00. The solder sleeve is gold plated in all cases. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

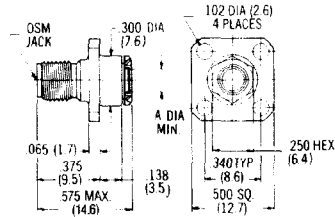
# OSM (SMA)

## For Semi-Rigid Cable

### .085 and .141 Dia. • Solder Clamp Attachment



**Flange Mount Cable Jack**  
DC-12.4 GHz



Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2006-5006-02</b>	<b>2006-5084-02</b>
Dim. A	Inches	Inches
	.144 Min.	.089 Min.

Finish: Passivated stainless steel. For gold plate, change the part number suffix from -02 to -00. The solder sleeve is gold plated in all cases. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

# OSM (SMA)

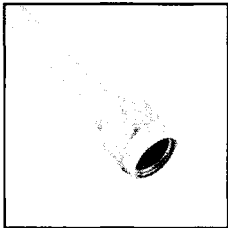
## For Semi-Rigid Cable

OSM Solderless Compression Crimp Connectors for semi-rigid cable meet high performance requirements for microwave and other applications. OSM Solderless Compression Crimp Connectors are available for use on RG 405/U (.085 dia.) and RG 402/U (.141 dia.) semi-rigid cables.

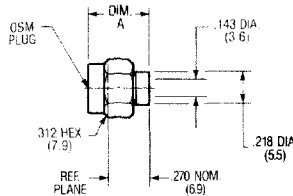
The Compression Crimp attachment meets high performance requirements for microwave system

applications. The cable attachment is permanent and highly reliable. The cable center conductor of the straight cable plug without center contact, suitably pointed, is used as the center contact pin. All other compression crimp connectors have integral captured center contacts of gold plated beryllium copper supported by a PTFE fluorocarbon dielectric.

### .085 and .141 • Solderless Cable Attachment

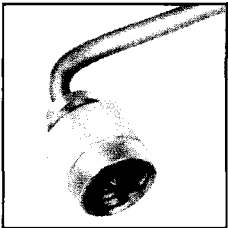


**Straight Cable Plug  
Without Center Contact**

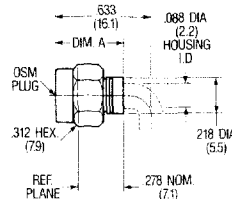


Cable	RG 402/U (.141)	
Part Number	2001-7641-02	
Dim. A	Before Crimping	Inches (mm) 530 Max. (13.5)
	After Crimping	.392 Max. (10.0)

Finish: Passivated stainless steel.  
Wire lock hole or retractable coupling nut design available. Consult factory.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Straight Cable Plug  
With Center Contact**



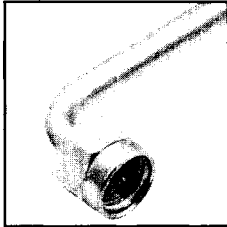
Cable	RG 405/U (.085)	
Part Number	2001-5385-02	
Dim. A	Before Crimping	Inches (mm) 488 Max. (12.4)
	After Crimping	.392 Max. (10.0)

Finish: Passivated stainless steel.  
Wire lock hole or retractable coupling nut design available. Consult factory.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

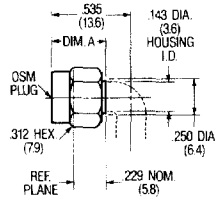
# OSM (SMA)

## For Semi-Rigid Cable

### Low Profile • .085 and .141 • Solderless Cable Attachment

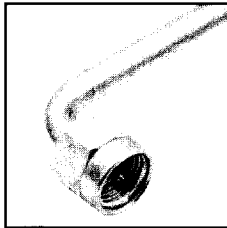


**Straight Cable Plug  
Without Center Contact**

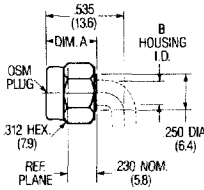


Cable		RG 402/U (.141)	
Part Number		2001-5363-02	
Dim. A	Before Crimping	Inches	(mm)
	After Crimping	355 Max.	(9.0)
		355 Max.	(9.0)

Finish: Passivated stainless steel.  
Wire lock hole coupling nut design available. Consult factory.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Straight Cable Plug  
With Center Contact**



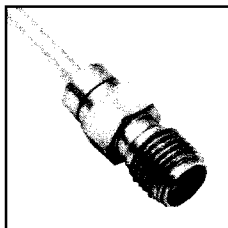
Cable		RG 402/U (.141)		RG 405/U (.085)	
Part Number		2001-5395-02		2001-5443-02	
Dim. A	Before Crimping	Inches	(mm)	Inches	(mm)
	After Crimping	355 Max.	(9.0)	355 Max.	(9.0)
Dim. B		143	(3.6)	.088	(2.2)

Finish: Passivated stainless steel.  
Wire lock hole coupling nut design available. Consult factory.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

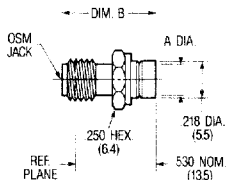
# OSM (SMA)

For Semi-Rigid Cable

## .085 and .141 • Solderless Cable Attachment

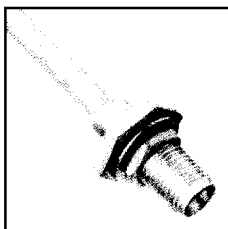


**Straight Cable Jack**

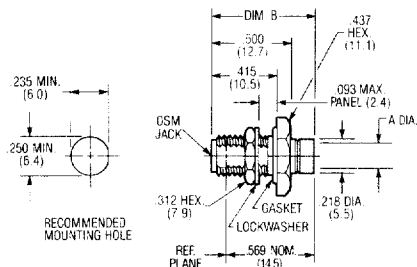


Cable	RG 402/U (.141)	RG 405/U (.085)
<b>Part Number</b>	<b>2002-7641-02</b>	<b>2002-7685-02</b>
<b>Dim. A</b>	Inches (mm) .143 (3.6)	Inches (mm) .088 (2.2)
<b>Dim. B</b>	<b>Before Crimping</b>	.755 Max. (19.2)
	<b>After Crimping</b>	.615 Max. (15.6)

Finish: Passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

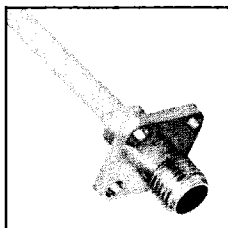


**Bulkhead Feedthrough Cable Jack**

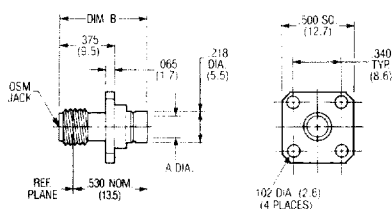


Cable	RG 402/U (.141)	RG 405/U (.085)
<b>Part Number</b>	<b>2004-7641-02</b>	<b>2004-7685-02</b>
<b>Dim. A</b>	Inches (mm) .143 (3.6)	Inches (mm) .088 (2.2)
<b>Dim. B</b>	<b>Before Crimping</b>	.795 Max. (20.2)
	<b>After Crimping</b>	.657 Max. (16.7)

Finish: Passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

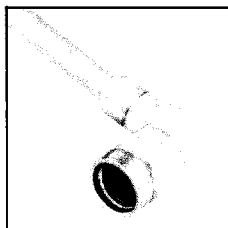


**Flange Mount Cable Jack**

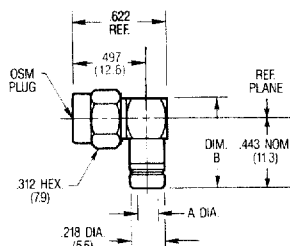


Cable	RG 402/U (.141)	RG 405/U (.085)
<b>Part Number</b>	<b>2006-7641-02</b>	<b>2006-7685-02</b>
<b>Dim. A</b>	Inches (mm) .143 (3.6)	Inches (mm) .088 (2.2)
<b>Dim. B</b>	<b>Before Crimping</b>	.755 Max. (19.2)
	<b>After Crimping</b>	.615 Max. (15.6)

Finish: Passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Right Angle Cable Plug**



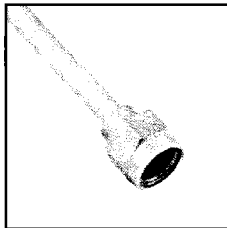
Cable	RG 402/U (.141)	RG 405/U (.085)
<b>Part Number</b>	<b>2007-7641-02</b> <b>2007-5100-02</b> (w/Safety Wire Holes)	<b>2007-7685-02</b> <b>2007-5101-02</b> (w/Safety Wire Holes)
<b>Dim. A</b>	Inches (mm) .143 (3.6)	Inches (mm) .088 (2.2)
<b>Dim. B</b>	<b>Before Crimping</b>	.720 Max. (18.3)
	<b>After Crimping</b>	.573 Max. (14.6)

Finish: Passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

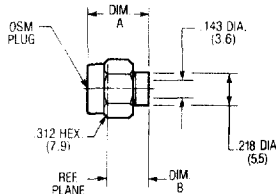
# OSM (SMA)

## MIL-C-39012 For Semi-Rigid Cable

### .085 and .141 • Solderless Cable Attachment

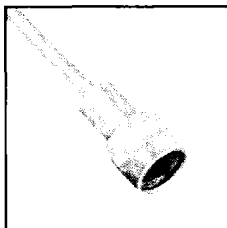


**Straight Cable Plug**  
Without Center Contact  
MIL-C-39012/92

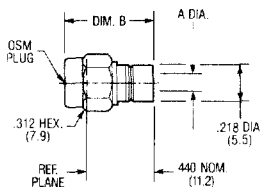


Cable	RG 402/U (.141)			
	B		F	
Category	B3101		-3301	
QPL P/N	2001-8931-92		2001-8301-92	
MIL-C-39012/92 (w/Safety Wire Holes)	B3001		-3201	
QPL P/N (w/Safety Wire Holes)	2001-8921-92		2001-8201-92	
Dim. A	Before Crimping	Inches (mm) .530 Max. (13.5)	Inches (mm) .530 Max. (13.5)	
	After Crimping	.392 Max. (10.0)	.406 Max. (10.3)	
Dim. B	.270 Nom. (6.9)		.281 Nom. (7.1)	

Finish: Military QPL units are finished in accordance with MIL-C-39012. The standard finish is passivated stainless steel.  
All outline drawings show after crimping configurations. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section. Refer to QPL section for category definitions.



**Straight Cable Plug**  
MIL-C-39012/79



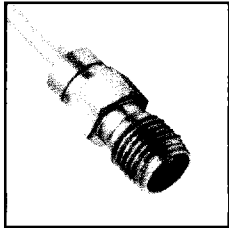
Cable	RG 402/U (.141)		RG 405/U (.085)	
	B	F	B	F
Category	B3104	-3308	B3103	-3307
QPL P/N	2001-8304-92	2001-8308-92	2001-8303-92	2001-8307-92
MIL-C-39012/79 (w/Safety Wire Holes)	B3004	-3208	B3003	-3207
QPL P/N (w/Safety Wire Holes)	2001-8204-92	2001-8208-92	2001-8203-92	2001-8207-92
Dim. A	Inches (mm) .143	(3.6)	Inches (mm) .088	(2.2)
Dim. B	Before Crimping	690 Max. (17.5)	690 Max. (17.5)	690 Max. (17.5)
	After Crimping	.568 Max. (14.4)	.568 Max. (14.4)	.568 Max. (14.4)

Finish: Military QPL units are finished in accordance with MIL-C-39012. The standard finish is passivated stainless steel.  
All outline drawings show after crimping configurations. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section. Refer to QPL section for category definitions.

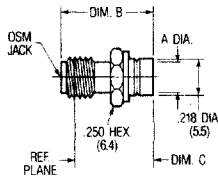
# OSM (SMA)

## MIL-C-39012 For Semi-Rigid Cable

### .085 and .141 • Solderless Cable Attachment

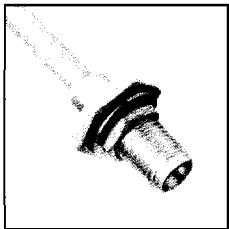


**Straight Cable Jack**  
MIL-C-39012/81

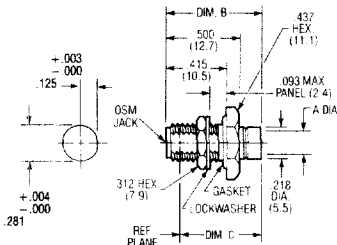


Cable	RG 402/U (.141)		RG 405/U (.085)	
	B	F	B	F
MIL-C-39012/81	B3004	-3208	B3003	-3207
QPL P/N	2002-8204-92	2002-8208-92	2002-8203-92	2002-8207-92
Dim. A	Inches .143	(mm) (3.6)	Inches .088	(mm) (2.2)
Dim. B	Before Crimping	.755 Max. (19.2)	.755 Max. (19.2)	.755 Max. (19.2)
	After Crimping	.615 Max. (15.6)	.620 Max. (15.7)	.615 Max. (15.6)
Dim. C	.530 Nom. (13.5)	.535 Nom. (13.6)	.530 Nom. (13.5)	.535 Nom. (13.6)

Finish: Military QPL units are finished in accordance with MIL-C-39012. The standard finish is passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Refer to QPL section for category definitions.



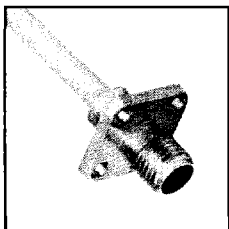
**Bulkhead Feedthrough Cable Jack**  
MIL-C-39012/83



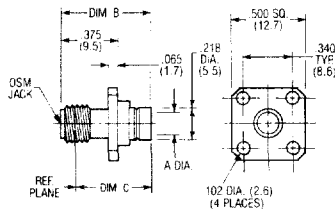
RECOMMENDED MOUNTING HOLE

Cable	RG 402/U (.141)		RG 405/U (.085)	
	B	F	B	F
MIL-C-39012/83	B3004	-3208	B3003	-3207
QPL P/N	2004-8204-92	2004-8208-92	2004-8203-92	2004-8207-92
Dim. A	Inches .143	(mm) (3.6)	Inches .088	(mm) (2.2)
Dim. B	Before Crimping	.795 Max. (20.2)	.725 Max. (18.4)	.795 Max. (20.2)
	After Crimping	.657 Max. (16.7)	.620 Max. (15.7)	.657 Max. (16.7)
Dim. C	.569 Nom. (14.5)	.529 Nom. (13.4)	.569 Nom. (14.5)	.529 Nom. (13.4)

Finish: Military QPL units are finished in accordance with MIL-C-39012. The standard finish is passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Refer to QPL section for category definitions.



**Flange Mount Cable Jack**  
MIL-C-39012/82



Cable	RG 402/U (.141)		RG 405/U (.085)	
	B	F	B	F
MIL-C-39012/82	B3004	-3208	B3003	-3207
QPL P/N	2006-8204-92	2006-8208-92	2006-8203-92	2006-8207-92
Dim. A	Inches .143	(mm) (3.6)	Inches .088	(mm) (2.2)
Dim. B	Before Crimping	.755 Max. (19.2)	.755 Max. (19.2)	.755 Max. (19.2)
	After Crimping	.615 Max. (15.6)	.620 Max. (15.7)	.615 Max. (15.6)
Dim. C	.530 Nom. (13.5)	.535 Nom. (13.6)	.530 Nom. (13.5)	.535 Nom. (13.6)

Finish: Military QPL units are finished in accordance with MIL-C-39012. The standard finish is passivated stainless steel.  
All outline drawings show after crimping configurations.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Refer to QPL section for category definitions.



# OSM (SMA)

## For Semi-Rigid Cable

These connectors are available for solid PTFE, foam polyethylene, microporous PTFE and spline coaxial cables.

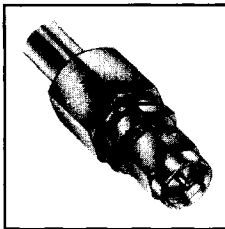
This series is ideal for medium power low loss applications through 18.0 GHz.

Two cable to connector attachment designs are available in this series. The standard compression clamp features reusable design structure and requires only typical laboratory assembly tools. The press clamp design provides permanent installation and requires a special assembly tool. This press clamp assembly provides greater reliability under severe thermal and mechanical environments with copper clad cable.

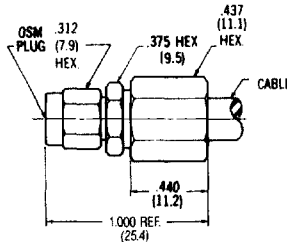
The housing and coupling nut are made of durable and corrosion resistant stainless steel. The center contact is made of heat-treated beryllium copper, is gold plated and supported by a PTFE fluorocarbon dielectric. The housing and coupling nut of these standard units have stainless steel finish.

In this series, the center contacts are soldered to the center conductor of the coaxial cable, except when using spline cable. On the spline version, the captured center contact plugs into the I.D. of the cable center conductor.

### .250 Dia. • Clamp Attachment

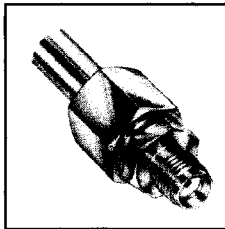


**Straight Cable Plug**

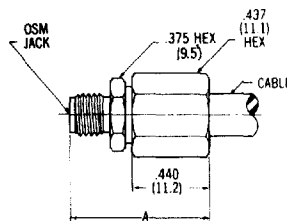


Compression Clamp Attachment	
Part Number	Cable .250 Dia.
2001-7750-02	Solid PTFE
2001-7752-02	Microporous PTFE and Foam
2001-7613-02	3 Spline PTFE
2001-7615-02	5 Spline PTFE

Finish: Passivated stainless steel.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Press clamp attachment available.



**Straight Cable Jack**



Part Number	Dim. A	Cable .250 Dia.
2002-7750-02	Inches (mm) .865 Ref. (22.0)	Solid PTFE
2002-7752-02	.865 Ref. (22.0)	Microporous PTFE and Foam
2002-7613-02	.917 Ref. (23.3)	3 Spline PTFE
2002-7615-02	.917 Ref. (23.3)	5 Spline PTFE

Finish: Passivated stainless steel.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
Bulkhead feedthrough cable jack, compression clamp and press clamp attachment available.

# OSM (SMA)

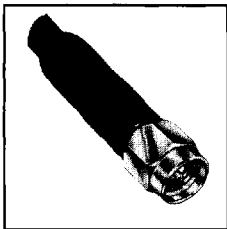
## For Flexible Cable

OSM Miniature Coaxial Connectors for flexible cable are designed for use on medium (e.g. RG-142B/U) and smaller size flexible cable. Flexible cable assemblies can be utilized in areas where semi-rigid cable is not required but high cable flexibility is needed. Designs exist for nearly all styles of connector terminated in most flexible cable types including double braided, foil barrier and other high performance cables. Many 75 ohm cable termination styles are also available, some with stock delivery.

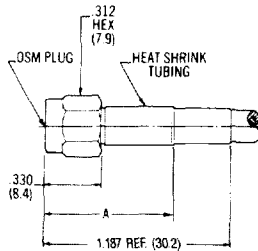
Electrical performance of the connectors tend to be limited only to the performance of the cable being terminated onto by the OSM connectors.

All connectors have solder-on center contacts. Connector housing to cable braid attachment is available in solder, crimp and clamp attachments.

### Flexible Cable • Solder Attachment

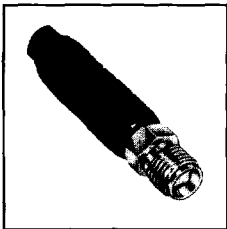


**Straight Cable Plug**

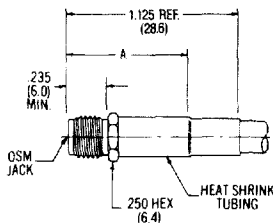


Cable	RG 55/U, 58, 141, 142, 223, 303, 400	RG 174/U, 188, 316
Part Number	2031-5002-02	2031-5003-02
Dim. A	Inches (mm) .775 Ref. (19.7)	Inches (mm) .690 Ref. (17.5)

Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

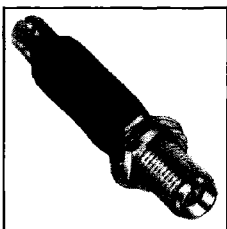


**Straight Cable Jack**

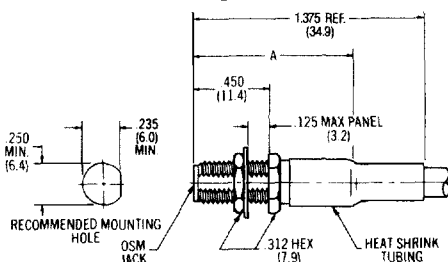


Cable	RG 55/U, 58, 141, 142, 223, 303, 400	RG 174/U, 188, 316
Part Number	2032-5002-00	2032-5004-00
Dim. A	Inches (mm) .730 Ref. (18.5)	Inches (mm) .700 Ref. (16.9)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Bulkhead Feedthrough Cable Jack**

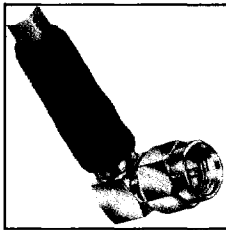


Cable	RG 55/U, 58, 141, 142, 223, 303, 400	RG 174/U, 188, 316
Part Number	2034-5007-00	2034-5008-00
Dim. A	Inches (mm) .945 Ref. (24.0)	Inches (mm) .825 Ref. (21.0)

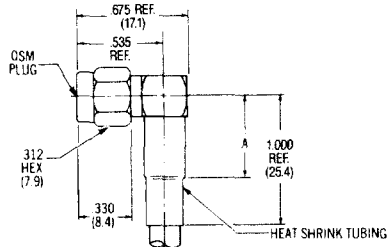
Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

# OSM (SMA) For Flexible Cable

## Flexible Cable • Solder Attachment



Right Angle Cable Plug\*



Cable	RG 55/U, 58, 141, 142, 223, 303, 400	RG 174/U, 188, 316
Part Number	2037-5005-02	2037-5006-02
Dim. A	Inches (mm) .630 Ref. (16.0)	Inches (mm) .440 Ref. (11.2)

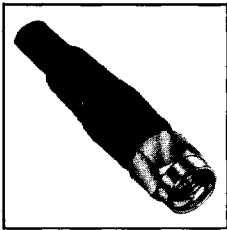
Finish: Housing is gold plated in all cases. Coupling nut is passivated stainless steel. For gold plated coupling nut, change the part number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.  
\*Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

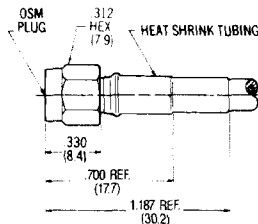
## For Flexible Cable

Connector housing to cable braid is crimp attached for rapid production assembly. A special crimping tool is required. Center contact is solder attached.

### Flexible Cable • Crimp Attachment

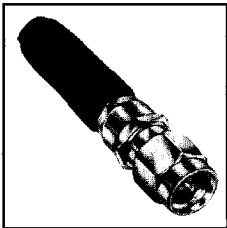


**Straight Cable Plug**  
Non-Captured Contact

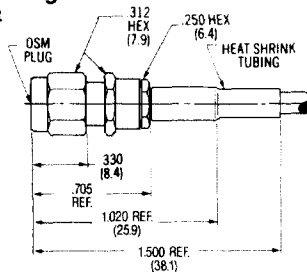


Part Number	Cable
2031-5005-02	RG 55/U 142, 223, 400
2031-5055-02	RG 58/U 141, 303
2031-5006-02	RG 174/U 188, 316

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

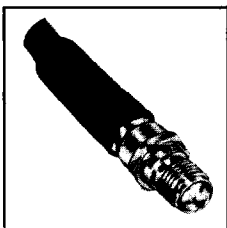


**Straight Cable Plug**  
Captured Contact

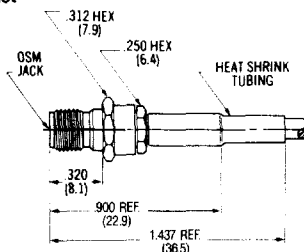


Part Number	Cable
2031-5011-02	RG 55/U 142, 223, 400
2031-5056-02	RG 58/U 141, 303
2031-5012-02	RG 174/U 188, 316
2031-5013-02	RG 180/U 195
2031-5102-02	RG 178/U 196

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.



**Straight Cable Jack**  
Captured Contact



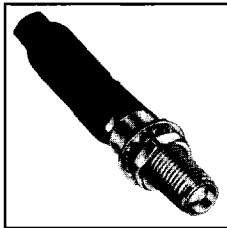
Part Number	Cable
2032-5007-02	RG 55/U 142, 223, 400
2032-5021-02	RG 58/U 141, 303
2032-5003-02	RG 174/U 188, 316
2032-5010-02	RG 180/U 195
2032-5026-02	RG 178/U 196

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

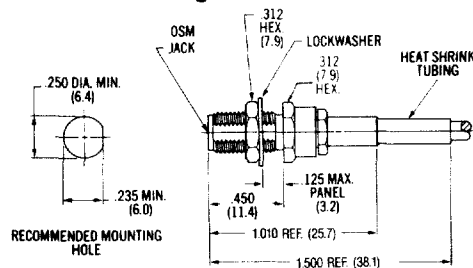
# OSM (SMA)

For Flexible Cable

## Flexible Cable • Crimp Attachment

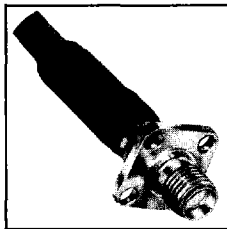


**Bulkhead Feedthrough Cable Jack**

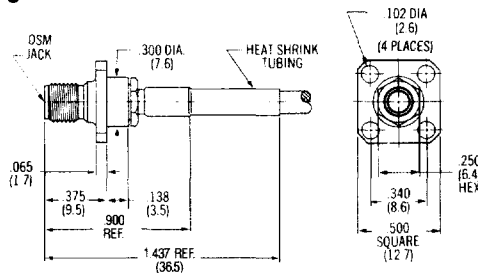


Captured Center Contact	
Part Number	Cable
2034-5004-02	RG 55/U, 142, 223, 400
2034-5023-02	RG 303/U, 58, 141
2034-5005-02	RG 188/U, 316, 174
2034-5006-02	RG 180/U, 195
2034-5031-02	RG 178/U, 196

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.

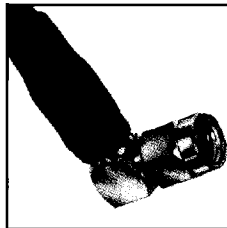


**Flange Mount Cable Jack**

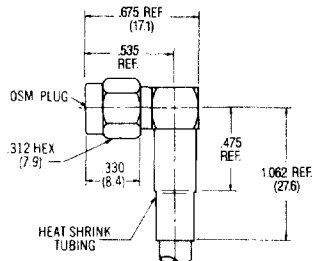


Captured Center Contact	
Part Number	Cable
2036-5003-02	RG 55/U, 142, 223, 400
2036-5014-02	RG 303/U, 58, 141
2036-5004-02	RG 188/U, 316, 174
2036-5005-02	RG 180/U, 195
2036-5016-02	RG 178/U, 196

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.



**Right Angle Cable Plug**  
DC-12.4 GHz



Captured Center Contact*	
Part Number	Cable
2037-5007-02	RG 55/U, 142, 223, 400
2037-5056-02	RG 303/U, 58, 141
2037-5008-02	RG 188/U, 316, 174
2037-5009-02	RG 180/U, 195
2037-5100-02	RG 178/U, 196

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section. \*Contact captivation per U.S. patent number 3,292,117.



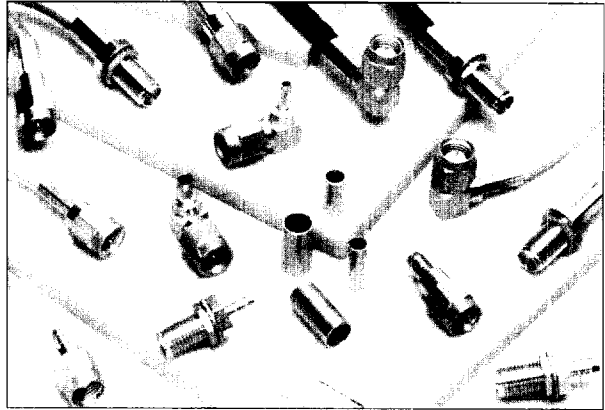
## 3-Piece SMA (OSM®) Connectors Reduce Installation Time

- Reliable stainless steel construction
- Fewer parts facilitate assembly
- Fully crimpable
- Axially captured

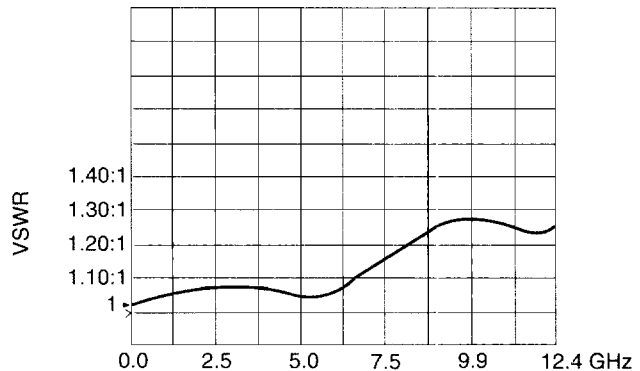
The M/A-COM 3-Piece SMA cable connector series has been designed to facilitate high volume cable assembly manufacturing. Standard configurations include straight cable plug, right angle cable plug and bulkhead cable jack. Fewer piece parts and a fully crimpable design translate into lower total installed costs for users. The crimped outer ferrule features fast, consistent and reliable cable attachment with excellent cable retention. Industry standard pneumatic crimp tooling can be utilized for high volume terminations. Extended length ferrules provide added strain relief characteristics and eliminate the need for a supplementary shrink boot. Center contacts can be either crimped or soldered, offering enhanced flexibility for both manufacturing and application needs. These SMA connectors are available for all popular RG/U cables including 55, 58, 141, 142, 174, 179, 187, 188, 223, 303, 316, 400 and double braided RD-316. Bulk packaging is available.

Passivated stainless steel construction and SPC controlled manufacturing provide excellent repeatable performance. Axially captured center contacts enhance mechanical reliability and ensure uncompromised electrical performance. Right angle plugs utilize a unique one piece housing construction for mechanical integrity.

For SMA cable assembly requirements, M/A-COM's 3-Piece SMA connectors feature excellent performance and value at a lower installed cost. Ease of assembly, high quality design and competitive prices make M/A-COM's 3-Piece SMA connectors an ideal solution for applications in telecom, datacom or test & measurement. Contact a local M/A-COM sales office or authorized distributor for qualification samples.



### Typical 3-Piece SMA Design



Typical VSWR for 3-Piece SMA Straight Cable Plug  
Part Number 2831-7316-02

OSM is a registered trademark of M/A-COM, Inc.

# SMA (OSM<sup>®</sup>) Specifications - 3-Piece SMA

Requirement	Detail
-------------	--------

## General

Material	Steel, corrosion resistant per ASTM-A-582 and ASTM-A-484, Type 303. Beryllium copper per ASTM-B-196. PTFE Fluorocarbon per MIL-P-19468 and ASTM-D-1457.
Finish	Center Contacts shall be gold plated (MIL-G-45204) over nickel plate (QQ-N-290). Housing and mounting hardware are passivated per ASTM-A-380. Crimp ferrules are nickel plated per QQ-N-290.
Design	The design shall be such that the outline shown in this catalog and the interface dimensions of MIL-STD-348 are met.

## Electrical

Frequency	dc-12.4 GHz or maximum operating frequency of cable per MIL-C-17
Nominal Impedance	50 ohms

Connector Type	Cable	VSWR (Max.)	Contact Resistance (milliohms max.)		Insulation Resistance (megohms min.)	Dielectric Withstanding Voltage (VRMS)	Corona Extinction Voltage at 70,000 Ft. (VRMS min.)	RF Transmission Loss	RF High Potential at 5 MHz (VRMS)	RF Leakage (dB min.)
			Center Contact	Outer Contact						
Straight Cable Plugs & Jacks Crimp Attachment	RG-55, 142, 223, 400	1.30	2.0	2.0	10,000	1000	250	$.06\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-58, 141, 303	1.30	2.0	2.0	10,000	1000	250	$.06\sqrt{f}$ (GHz)	670	-(60-fGHz)
2831, 2834 Series	RG-174, 179, 187, 188, 316, RD-316	1.30	2.0	2.0	10,000	750	190	$.06\sqrt{f}$ (GHz)	500	-(60-fGHz)
Right Angle Cable Plugs Crimp Attachment	RG-55, 142, 223, 400	1.40	2.0	2.0	10,000	1000	250	$.07\sqrt{f}$ (GHz)	670	-(60-fGHz)
	RG-58, 141, 303	1.40	2.0	2.0	10,000	1000	250	$.07\sqrt{f}$ (GHz)	670	-(60-fGHz)
2837 Series	RG-174, 179, 187, 188, 316, RD-316	1.40	2.0	2.0	10,000	750	190	$.07\sqrt{f}$ (GHz)	500	-(60-fGHz)

## Mechanical

Force to Engage	The torque required to engage and disengage shall not exceed 2 in.-lbs. The longitudinal force is not applicable.
Coupling Nut Retention	60 lbs. min. Applicable for plug connectors only.
Coupling Proof Torque	15 in.-lbs. min. Applicable for plug connectors only.
Mating Characteristics	Applicable to jack connectors only. Reference MIL-STD-348 for dimensions: oversize test pin .0375 min. dia., .030 to .045 deep, insertion force 3 lbs. max. with .0370 min. dia. pin, withdrawal force 1 oz. min. with .0355 max dia. pin.
Connector Durability	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	Specification MIL-STD-202, method 204, test condition D.
Shock	Specification MIL-STD-202, method 213, test condition I.
Thermal Shock	Specification MIL-STD-202, method 107, test condition B.
Corrosion (Salt Spray)	Specification MIL-STD-202, method 101, test condition B.
Moisture Resistance	Specification MIL-STD-202, method 106.
Temperature Rating	-65°C to +165°C

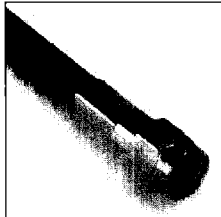
## Cable Retention

Cable Type	(lbs. min.)	
	Single Braid	Double Braid
RG-174, 179, 187, 188, 316, RD-316	20	25
RG-55, 58, 141, 142, 303, 223, 400	40	45

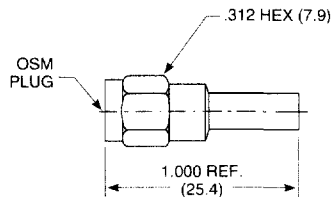
M/A-COM has design control and all data contained herein is subject to change without notice.

# SMA (OSM)<sup>®</sup> 3-Piece SMA For Flexible Cable

## Flexible Cable • Crimp Attachment



**Straight Cable Plug**  
Captured Contact

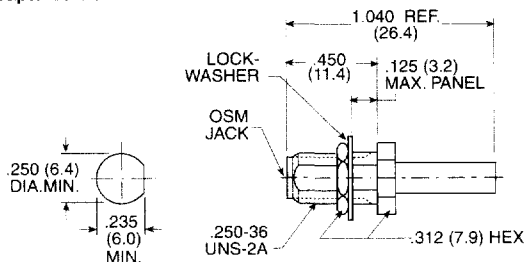


Part Number	Cable
2831-7388-02	RG-174/U, 179, 187, 188, 316
2831-7316-02	RD-316 Double Braid
2831-7358-02	RG-58/U, 141, 303
2831-7341-02	RG-55/U, 142, 223, 400

Finish: Passivated stainless steel



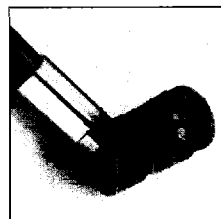
**Bulkhead Feedthrough Cable Jack**  
Captured Contact



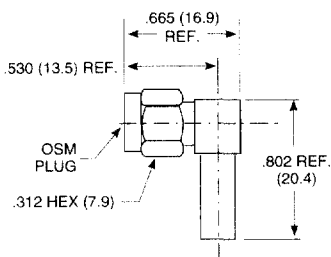
RECOMMENDED  
MOUNTING HOLE

Part Number	Cable
2834-7388-02	RG-174/U, 179, 187, 188, 316
2834-7316-02	RD-316 Double Braid
2834-7358-02	RG-58/U, 141, 303
2834-7341-02	RG-55/U, 142, 223, 400

Finish: Passivated stainless steel



**Right Angle Cable Plug**  
Captured Contact



Part Number	Cable
2837-7388-02	RG-174/U, 179, 187, 188, 316
2837-7316-02	RD-316 Double Braid
2837-7358-02	RG-58/U, 141, 303
2837-7341-02	RG-55/U, 142, 223, 400

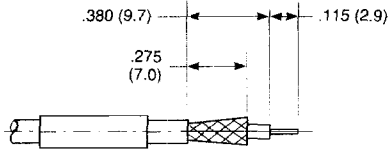
Finish: Passivated stainless steel

Dimensions are in decimal inches, metric equivalents (to the nearest 0.1mm) are given for general information only.



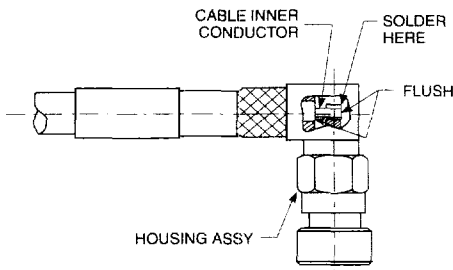
# SMA (OSM)<sup>®</sup>

## 3-Piece SMA Typical Assembly Procedure for Right Angle Plug Connectors



1. Slide crimp sleeve over cable, trim cable to dimensions shown and tin the inner conductor.

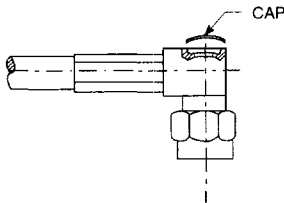
NOTE: Be careful not to nick the braid or center conductor.



2. Place locator tool onto the housing assembly. (Recommended for maintaining correct interface dimensions).

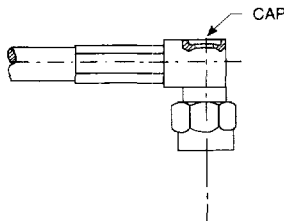
Insert the cable into back end of the housing assembly as shown, nesting the cable center conductor into the connector center conductor slot as shown.

Solder cable center conductor to center contact as shown.



3. Slide crimp sleeve over the braid and crimp using the proper die cavity for the cable being used. (See table below for proper die cavity.)

Remove locator tool from housing assembly if being used.



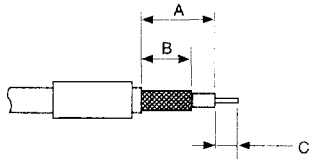
4. Insert cap into housing opening as shown and press flat using a .181 (4.5 mm) dia. punch.

Option: Solder or epoxy cap into place being careful to avoid leakage into the housing assembly.

Hex Size	Cable Type
.128	RG-174, 179, 187, 188, 316
.213	RG-55, 58, 141, 142, 223, 303, 400
.151	RD-316

# SMA (OSM)<sup>®</sup>

## 3-Piece SMA Typical Assembly Procedure for Straight Plug & Bulkhead Jack Connectors



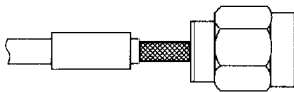
1. Slide crimp sleeve over cable, and trim cable to proper dimensions as shown in chart.

NOTE: Be careful not to nick the braid or center conductor.

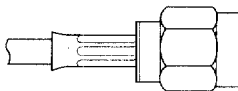


2. Solder center contact onto center conductor of the cable as shown.

Option: Crimp center contact. See Notes 1 and 2 below.



3. Insert prepared cable into the housing until center contact snaps into place. Place cable braid over back end of the housing.



4. Slide crimp sleeve over cable braid and crimp using the proper die cavity for the cable being used. (See table below for proper die cavity.)

A plug body is shown, but these instructions are relevant to both plugs and jacks.

3-Piece SMA Connector Type	Cable Strip Dimensions ( $\pm .005$ )		
	A	B	C
Plug	.315	.275	.085
Jack	.325	.275	.085

Hex Size	Cable Type
.128	RG-174, 179, 187, 188, 316
.213	RG-55/U, 58, 141, 142, 223, 303, 400
.151	RD-316
For Center Contact Crimping	
.042	All Cable Types

#### NOTES:

1. For center contact crimping, use Hex Die 2598-5380-54 in the Econo-Crimp tool or use Hex Die 2598-5379-54 in the Hex Crimp Tool.
2. Crimping of solid center conductor cable is not recommended.

# TOOLS

## Hex Crimp Assembly Tools for 3-Piece SMA

### Hex Crimp Tool



Die Change Tool



Hex Die

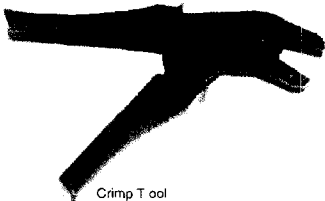


Crimp Tool

Description	Part Number	Model Number
Crimp Frame	5698-5014-54	T-4718
Die Change Tool	5698-5017-54	T-4703

Hex Die Part Number	Die Cavity	Hex Size ±.003	For Use With RG/U Cable
5698-5015-54	A	.105	178B & 196A
	B	.213	55B, 58C, 141A, 142B, 223, 303 & 400
	C		174, 174B, 179, 187A, 188A & 316
2598-5379-54	—	.128	179, 187A, 188A & 316
2098-0323-54	—	.151	RD-316
<b>For Center Contact Crimping</b>			
2598-5379-54	—	.042	—

### Econo-Crimp Tool



Crimp Tool



Hex Die

Description	Part Number
Crimp Frame	2598-5006-54

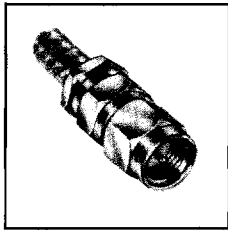
Hex Die Part Number	Die Cavity	Hex Size ±.003	For Use With RG/U Cable
2598-5007-54	A	.105	178B & 196A
	B	.213	55B, 58C, 141A, 142B, 223, 303 & 400
	C	.128	174, 174B, 179, 187A, 188A & 316
2598-5380-54	—	.151	RD-316
	<b>For Center Contact Crimping</b>		
—	—	.042	—

# OSM (SMA)

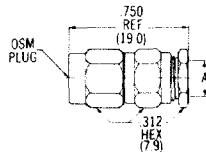
## For Flexible Cable

This series of cable clamp attachment connectors is the commercial alternate to the SMA type connectors to flexible cable per MIL-C-39012 Category A Field Replaceable units (no special tools required).

### Flexible Cable • Clamp Attachment

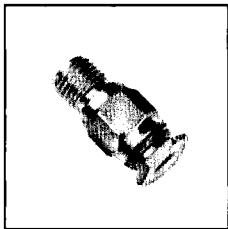


**Straight Cable Plug  
Captured Contact**

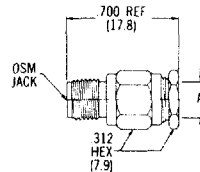


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 188, 316	RG 180/U, 195
Part Number	2001-7141-02	2001-7188-02	2001-7195-02
Dim. A	Inches (mm) .220 Dia. (5.6)	Inches (mm) .116 Dia. (2.9)	Inches (mm) .160 Dia. (4.1)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

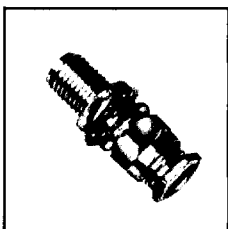


**Straight Cable Jack  
Captured Contact**

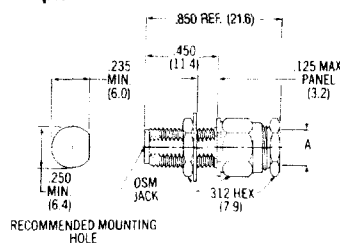


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 188, 316	RG 180/U, 195
Part Number	2002-7141-02	2002-7188-02	2002-7195-02
Dim. A	Inches (mm) .220 Dia. (5.6)	Inches (mm) .116 Dia. (2.9)	Inches (mm) .160 Dia. (4.1)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Bulkhead Feedthrough Cable Jack  
Captured Contact**



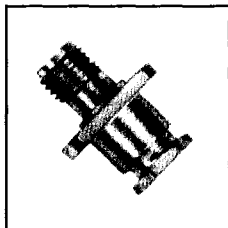
Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 188, 316	RG 180/U, 195
Part Number	2004-7141-02	2004-7188-02	2004-7195-02
Dim. A	Inches (mm) .220 Dia. (5.6)	Inches (mm) .116 Dia. (2.9)	Inches (mm) .160 Dia. (4.1)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

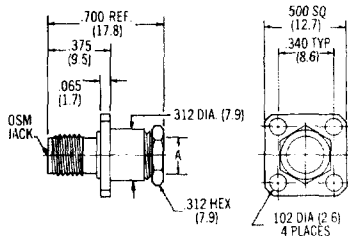
# OSM (SMA)

## For Flexible Cable

### Flexible Cable • Clamp Attachment

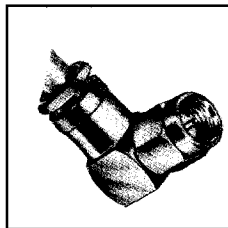


**Flange Mount Cable Jack  
Captured Contact**

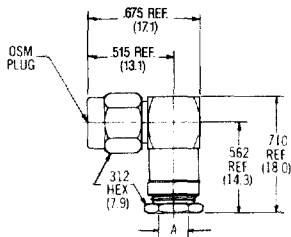


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 188, 316	RG 180/U, 195
Part Number	2006-7141-02	2006-7188-02	2006-7195-02
Dim. A	Inches (mm) .220 Dia. (5.6)	Inches (mm) .116 Dia. (2.9)	Inches (mm) .160 Dia. (4.1)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section.



**Right Angle Cable Plug\*  
DC-12.4 GHz**



Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 188, 316	RG 180/U, 195
Part Number	2007-7141-02	2007-7188-02	2007-7195-02
Dim. A	Inches (mm) .220 Dia. (5.6)	Inches (mm) .116 Dia. (2.9)	Inches (mm) .160 Dia. (4.1)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Appendix for Coaxial Cable Characteristics. Refer to recommended assembly tools in Tool Section. \*Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

## Panel Mount Receptacles

M/A-COM understands how to get state-of-the-art performance from microwave circuits and how to get that performance to the outside world in the most efficient manner using OSM Panel and Bulkhead Mount Connectors.

These highly ruggedized stainless steel connectors are capable of hundreds of matings with no degradation in performance.

For component and system panels, cavities, waveguide and strip transmission lines, there are an infinite number of mounting and contact termination treatments possible. Stock availability exists for more styles than any other supplier.

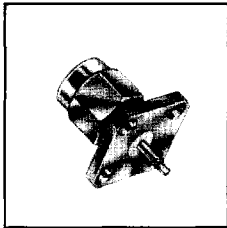
Flange mount, front panel, and through panel attachment styles are available in a number of sizes and hole patterns in both

straight and right angle configurations. Most styles are also available as hermetically sealed units.

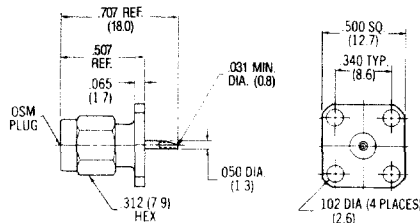
Center contact configuration of any of the standard series can also be supplied with any housing. Most OSM receptacle connectors are manufactured using a patented contact capture technique unsurpassed in terms of axial and radial contact retention. Most designs can also be supplied with non-captured center contacts.

OSM right angle connectors utilize laser welding for contact attachment which has been proven to be the most reliable technique under the most hostile environments. Housings are machined from stainless steel and right angle bodies are hard brazed. This allows for much tighter tolerancing for more precise and predictable installations.

### Solder Pot Terminal

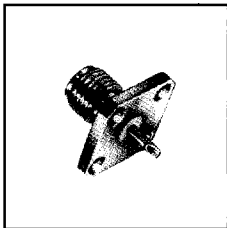


**Flange Mount Plug Receptacle**

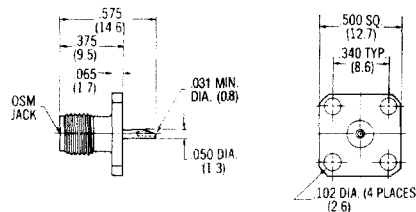


Captured Center Contact* Solder Pot Terminal	
Part Number	2051-0000-02
Mechanically Captured Contact	
Part Number	2051-1900-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

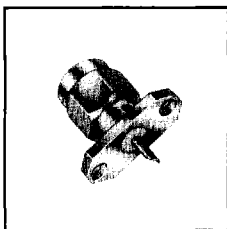


**Flange Mount Jack Receptacle**

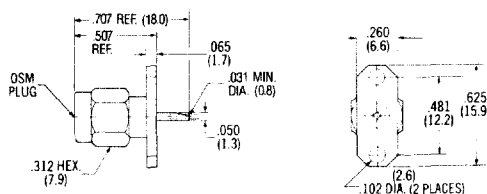


Captured Center Contact* Solder Pot Terminal	
Part Number	2052-0000-02
Mechanically Captured Contact	
Part Number	2052-1900-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Plug Receptacle**



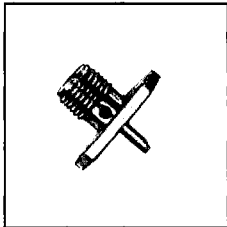
Captured Center Contact* Solder Pot Terminal	
Part Number	2051-1350-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

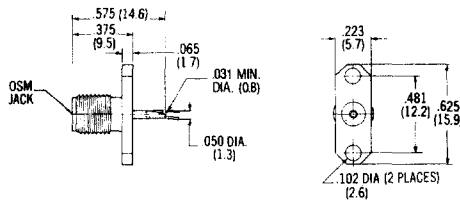
# OSM (SMA)

## Panel Mount Receptacles

### Solder Pot Terminal

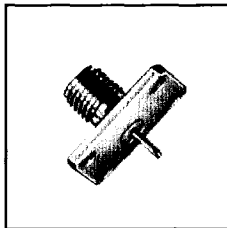


Flange Mount Jack Receptacle

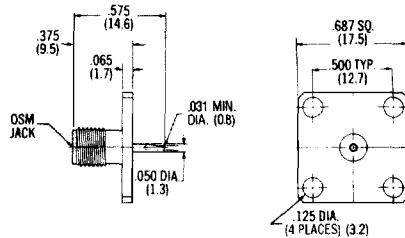


Captured Center Contact* Solder Pot Terminal	
Part Number	2052-1350-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

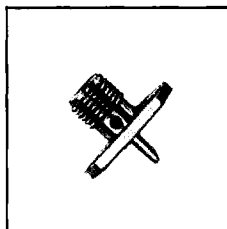


Flange Mount Jack Receptacle

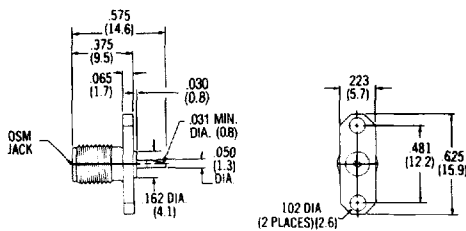


Captured Center Contact* Solder Pot Terminal	
Part Number	2052-5085-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
Also available with 1,000 sq. (25.4) flange.  
\*Contact captivation per U.S. patent number 3,292,117.

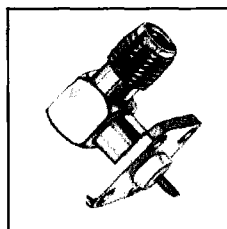


Flange Mount Jack Receptacle

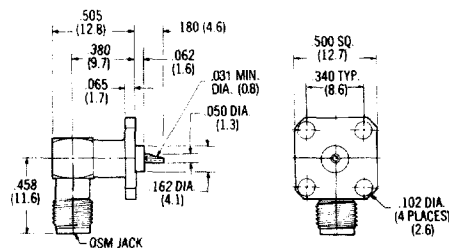


Captured Center Contact* Solder Pot Terminal	
Part Number	2052-1300-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



Flange Mount Right Angle Jack Receptacle



Captured Center Contact Solder Pot Terminal	
Part Number	2054-0000-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

M/A-COM, Inc.

35

North America: Tel. (800) 366-2266  
Fax (800) 618-8883

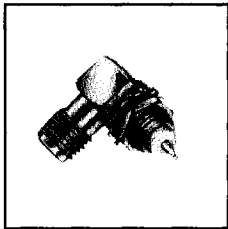
Asia/Pacific: Tel. +85 2 2111 8088  
Fax +85 2 2111 8087

Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

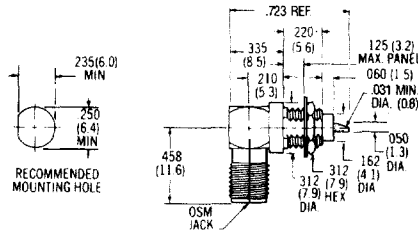
# OSM (SMA)

## Bulkhead Mount Receptacles

### Solder Pot Terminal

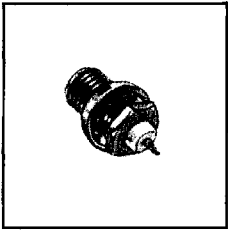


**Bulkhead Feedthrough Right Angle Jack Receptacle**

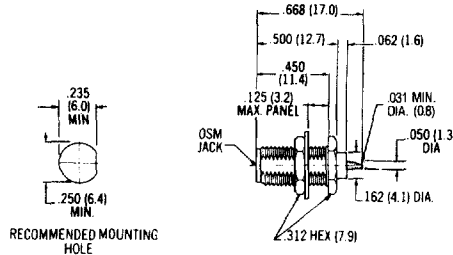


Captured Center Contact Solder Pot Terminal	
Part Number	2060-0000-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.



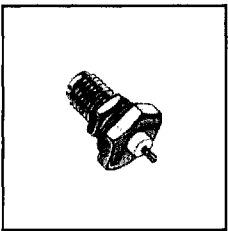
**Bulkhead Feedthrough Jack Receptacle**



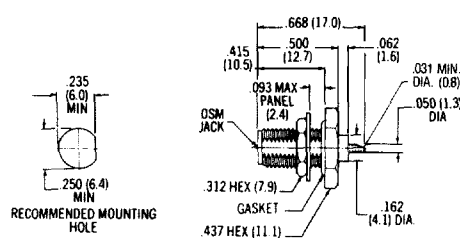
Captured Center Contact* Solder Pot Terminal Rear Mount	
Part Number	2056-0000-02
Mechanically Captured Contact	
Part Number	2056-1900-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

\*Contact captivation per U.S. patent number 3,292,117.



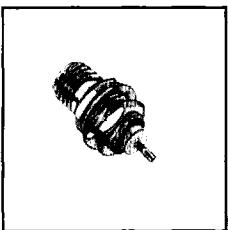
**Bulkhead Feedthrough Jack Receptacle**



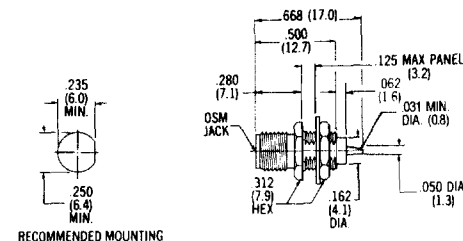
Captured Center Contact* Solder Pot Terminal Rear Mount	
Part Number	2056-1100-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

\*Contact captivation per U.S. patent number 3,292,117.



**Bulkhead Feedthrough Jack Receptacle**



Captured Center Contact* Solder Pot Terminal Front Mount	
Part Number	2058-0000-02

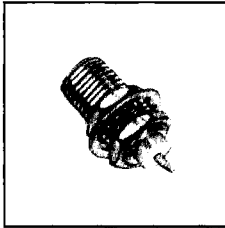
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

\*Contact captivation per U.S. patent number 3,292,117.

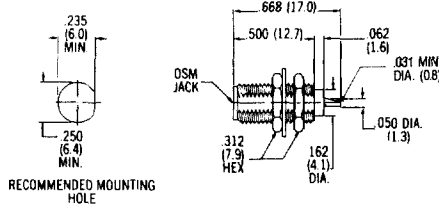


# OSM (SMA)

## Bulkhead Mount • Solder Pot Terminal



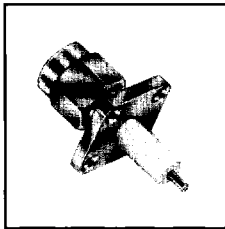
**Bulkhead Feedthrough Jack Receptacle**



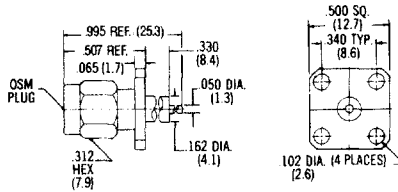
Captured Center Contact* Solder Pot Terminal	
Part Number	2056-5006-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

## Panel Mount • Straight Terminal

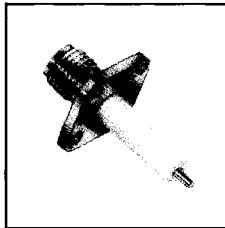


**Flange Mount Plug Receptacle**

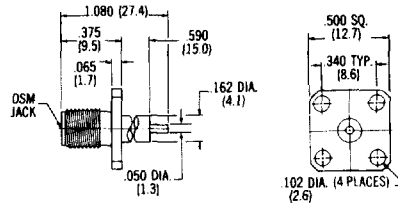


Non-Captured Center Contact Straight Terminal	
Part Number	2051-1200-02
Captured Center Contact* Straight Terminal	
Part Number	2051-1201-02
Mechanically Captured Contact	
Part Number	2051-1901-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

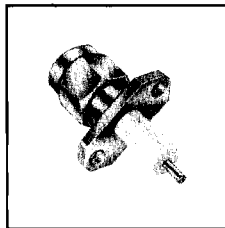


**Flange Mount Jack Receptacle**

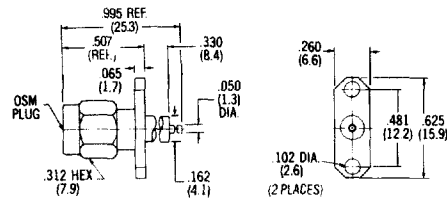


Non-Captured Center Contact Straight Terminal	
Part Number	2052-1200-02
Captured Center Contact* Straight Terminal	
Part Number	2052-1201-02
Mechanically Captured Contact	
Part Number	2052-1901-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Plug Receptacle**

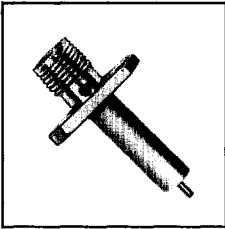


Non-Captured Center Contact Straight Terminal	
Part Number	2051-1351-02
Captured Center Contact* Straight Terminal	
Part Number	2051-1352-02

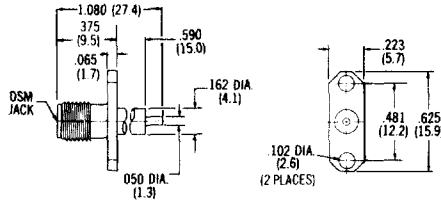
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

## Panel Mount • Straight Terminal



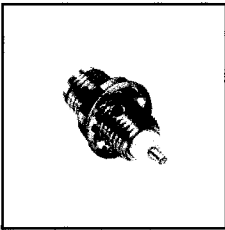
**Flange Mount Jack Receptacle**



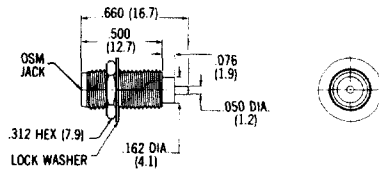
Non-Captured Center Contact Straight Terminal	
Part Number	2052-1351-02
Captured Center Contact* Straight Terminal	
Part Number	2052-1352-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

## Bulkhead Mount • Straight Terminal

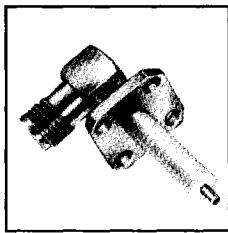


**Bulkhead Feedthrough Jack Receptacle**

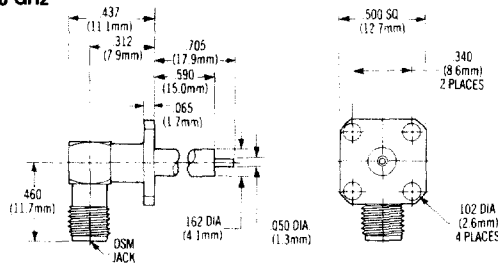


Captured Center Contact* Straight Terminal	
Part Number	2058-5029-02
Mechanically Captured Contact	
Part Number	2058-5428-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



**Right Angle Jack Receptacle  
DC - 18.0 GHz**

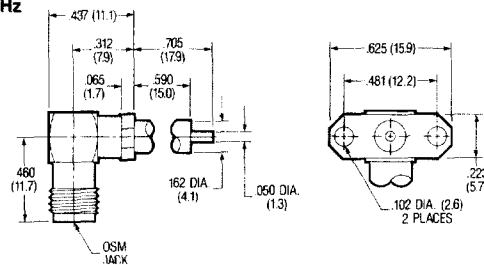


Captured Center Contact Straight Terminal	
Part Number	2054-1231-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.



**Right Angle Jack Receptacle  
DC - 18.0 GHz**



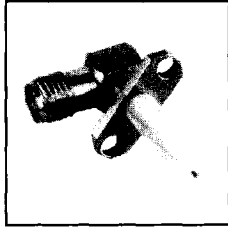
Captured Center Contact Straight Terminal	
Part Number	2054-1241-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

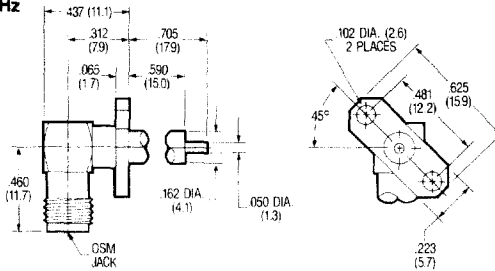
# OSM (SMA)

## Panel Mount Receptacles

### Straight Terminal

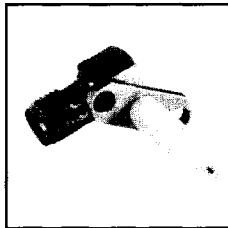


**Right Angle Flange Mount Jack Receptacle**  
dc - 18.0 GHz

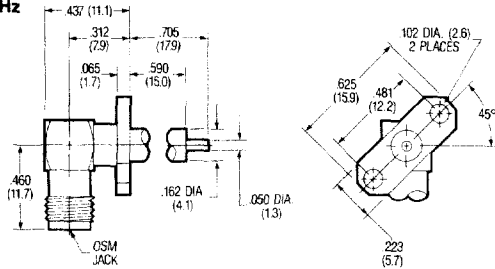


Captured Center Contact Straight Terminal	
Part Number	2054-1251-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

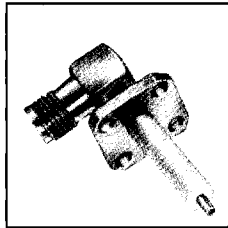


**Right Angle Flange Mount Jack Receptacle**  
dc - 18.0 GHz

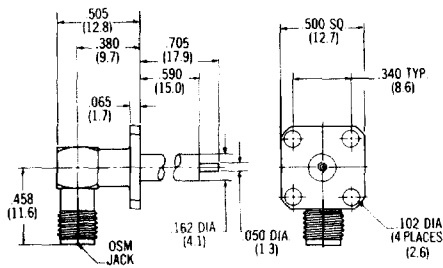


Captured Center Contact Straight Terminal	
Part Number	2054-1261-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.



**Right Angle Flange Mount Jack Receptacle**  
dc - 12.4 GHz



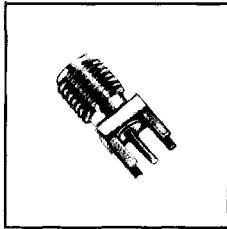
Captured Center Contact Straight Terminal	
Part Number	2054-1201-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

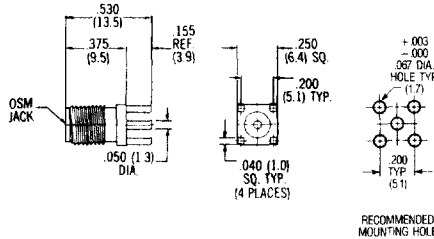
# OSM (SMA)

## Panel Mount Receptacles

### Printed Circuit Boards

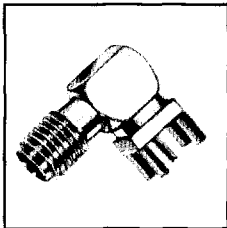


**Straight Jack**

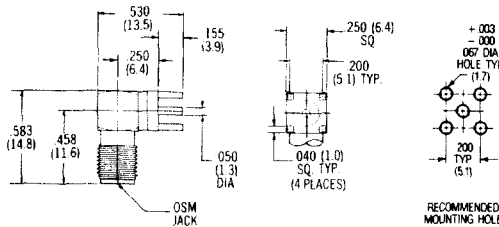


Captured Center Contact Straight Terminal	
Part Number:	2062-0000-00

Finish: Gold plate.



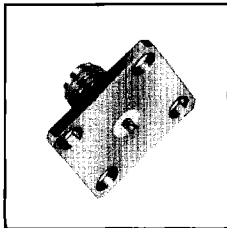
**Right Angle Jack**



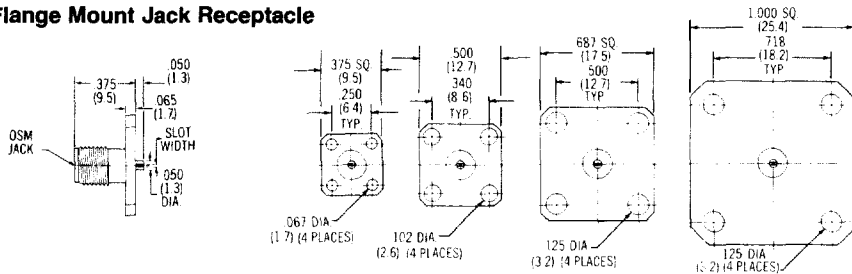
Captured Center Contact Straight Terminal	
Part Number:	2064-0000-00

Finish: Gold plate.

### Slot Terminal



**Flange Mount Jack Receptacle**



Captured Center Contact* Slot Terminal						
Part Number	Slot Width +.003/- .001		Flange Size Sq.	Part Number	Slot Width +.003/- .001	
	Inches	(mm)	Inches (mm)		Inches	(mm)
2052-1600-02	.012	(0.3)	.375 (9.5)	2052-1620-02	.012	(0.3)
2052-1602-02	.018	(0.5)		2052-1622-02	.018	(0.5)
2052-1604-02	.028	(0.7)		2052-1624-02	.028	(0.7)
2052-1606-02	.036	(0.9)		2052-1626-02	.036	(0.9)
2052-1610-02	.012	(0.3)	.500 (12.7)	2052-1640-02	.012	(0.3)
2052-1612-02	.018	(0.5)		2052-1642-02	.018	(0.5)
2052-1614-02	.028	(0.7)		2052-1644-02	.028	(0.7)
2052-1616-02	.036	(0.9)		2052-1646-02	.036	(0.9)
					1.000 (25.4)	

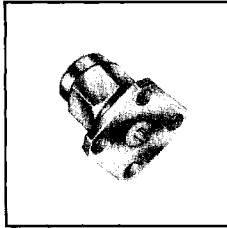
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".

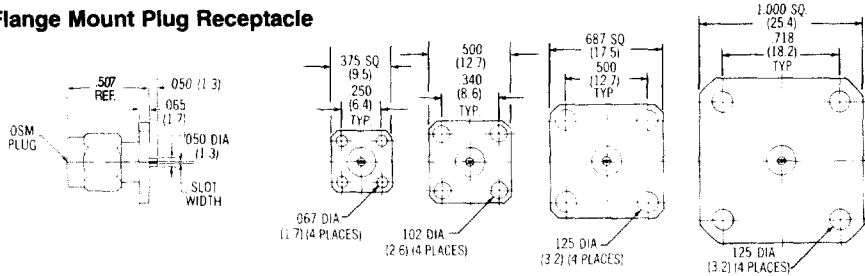
# OSM (SMA)

## Panel Mount Receptacles

### Slot Terminal

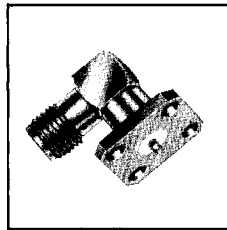


### Flange Mount Plug Receptacle

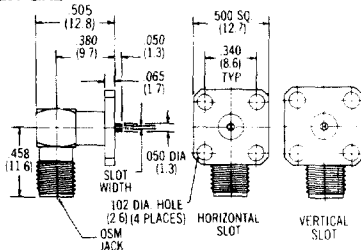


Captured Center Contact* Slot Terminal					
Part Number	Slot Width +.003/-.001	Flange Size Sq.	Part Number	Slot Width +.003/-.001	Flange Size Sq.
	Inches (mm)	Inches (mm)		Inches (mm)	Inches (mm)
2051-1600-02	.012 (0.3)	375 (9.5)	2051-1620-02	.012 (0.3)	687 (17.5)
2051-1602-02	.018 (0.5)		2051-1622-02	.018 (0.5)	
2051-1604-02	.028 (0.7)		2051-1624-02	.028 (0.7)	
2051-1606-02	.036 (0.9)		2051-1626-02	.036 (0.9)	
2051-1610-02	.012 (0.3)	500 (12.7)	2051-1640-02	.012 (0.3)	1,000 (25.4)
2051-1612-02	.018 (0.5)		2051-1642-02	.018 (0.5)	
2051-1614-02	.028 (0.7)		2051-1644-02	.028 (0.7)	
2051-1616-02	.036 (0.9)		2051-1646-02	.036 (0.9)	

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".

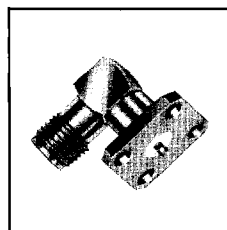


### Right Angle Flange Mount Jack Receptacle dc - 12.4 GHz

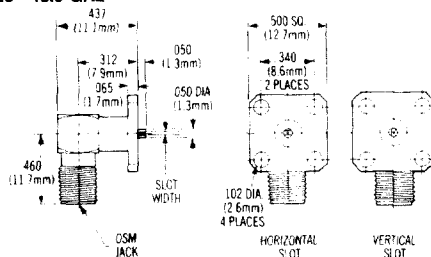


Part Number	Slot Width +.003/-.001	Slot Position
2054-1610-02	.012 (0.3)	Horizontal
2054-1612-02	.018 (0.5)	
2054-1614-02	.028 (0.7)	
2054-1616-02	.036 (0.9)	
2054-1611-02	.012 (0.3)	Vertical
2054-1613-02	.018 (0.5)	
2054-1615-02	.028 (0.7)	
2054-1617-02	.036 (0.9)	

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.



### Right Angle Flange Mount Jack Receptacle dc - 18.0 GHz



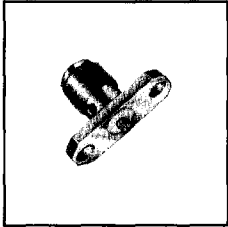
Part Number	Slot Width +.003/-.001	Slot Position
2054-1690-02	.012 (0.3)	Horizontal
2054-1692-02	.018 (0.5)	
2054-1694-02	.028 (0.7)	
2054-1696-02	.036 (0.9)	
2054-1691-02	.012 (0.3)	Vertical
2054-1693-02	.018 (0.5)	
2054-1695-02	.028 (0.7)	
2054-1697-02	.036 (0.9)	

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
Mechanical dimension replacement for swept right angle.

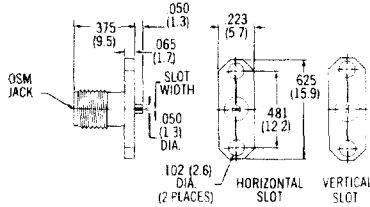
# OSM (SMA)

## Panel Mount Receptacles

### Slot Terminal

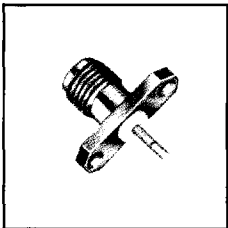


#### Flange Mount Jack Receptacle

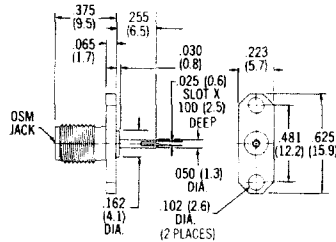


Captured Center Contact* Slot Terminal		
Part Number	Slot Width ±.003/- .001	Slot Position
	Inches (mm)	
2052-1650-02	.012 (0.3)	Horizontal
2052-1651-02	.012 (0.3)	Vertical
2052-1652-02	.018 (0.5)	Horizontal
2052-1653-02	.018 (0.5)	Vertical
2052-1654-02	.028 (0.7)	Horizontal
2052-1656-02	.036 (0.9)	Horizontal

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".



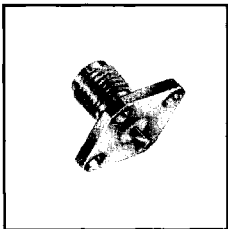
#### Flange Mount Jack Receptacle



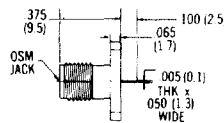
Non-Captured Center Contact Slot Terminal	
Part Number	2052-1301-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

### Tab Terminal

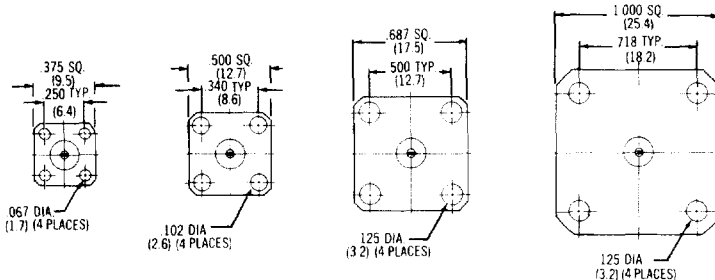


#### Flange Mount Jack Receptacle



Captured Center Contact* Tab Terminal			
Part Number	Flange Size Sq.	Part Number	Flange Size Sq.
	Inches (mm)		Inches (mm)
2052-1608-02	.375 (9.5)	2052-1628-02	.687 (17.5)
2052-1618-02	.500 (12.7)	2052-1648-02	1.000 (25.4)

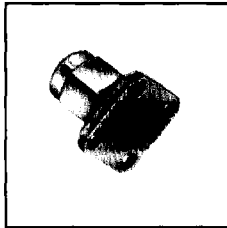
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".



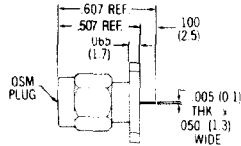
# OSM (SMA)

## Panel Mount Receptacles

### Tab Terminal

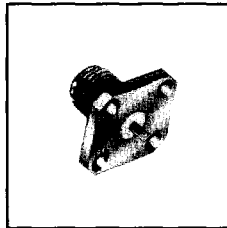
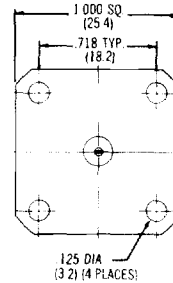
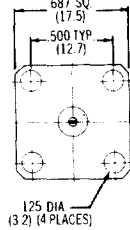
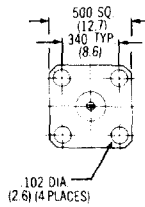
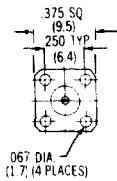


**Flange Mount Plug Receptacle**

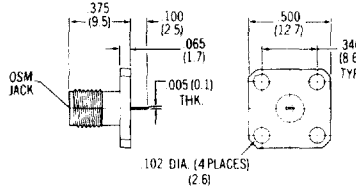


Captured Center Contact* Tab Terminal						
Part Number	Flange Size Sq.		Part Number	Flange Size Sq.		
2051-1608-02	Inches	(mm)	2051-1628-02	Inches	(mm)	
	.375	(9.5)		.687	(17.5)	
2051-1618-02		500	(12.7)	2051-1648-02	1.000	(25.4)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".

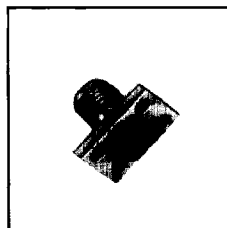


**Flange Mount Jack Receptacle**  
.020 Wide Tab

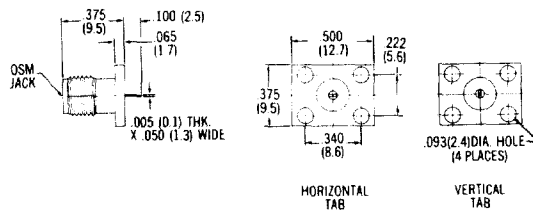


Non-Captured Center Contact Tab Terminal	
Part Number	2052-0041-02
Captured Center Contact* Tab Terminal	
Part Number	2052-5636-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Jack Receptacle**



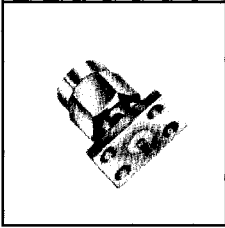
Captured Center Contact* Tab Terminal	
Part Number	Tab Position
2052-1688-02	Horizontal
2052-1689-02	Vertical

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".

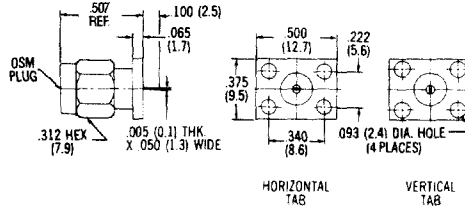
# OSM (SMA)

## Panel Mount Receptacles

### Tab Terminal



**Flange Mount Plug Receptacle**

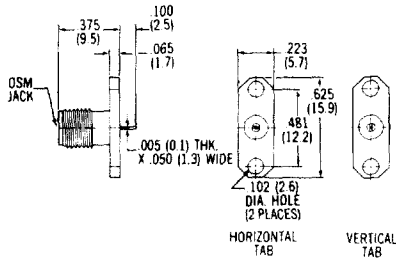


Captured Center Contact* Tab Terminal	
Part Number	Tab Position
2051-1688-02	Horizontal
2051-1689-02	Vertical

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".

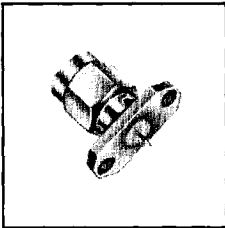


**Flange Mount Jack Receptacle**

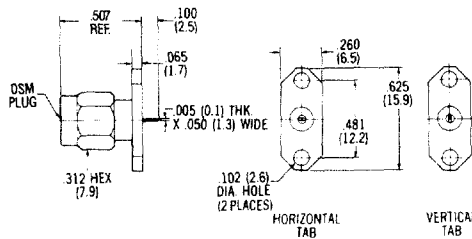


Captured Center Contact* Tab Terminal	
Part Number	Tab Position
2052-1658-02	Horizontal
2052-1659-02	Vertical

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".



**Flange Mount Plug Receptacle**



Captured Center Contact* Tab Terminal	
Part Number	Tab Position
2051-1658-02	Horizontal
2051-1659-02	Vertical

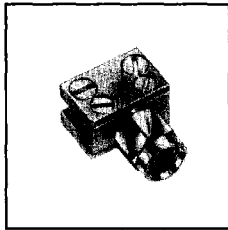
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117. For non-captured version, change the sixth digit in the part number from "6" to "7".



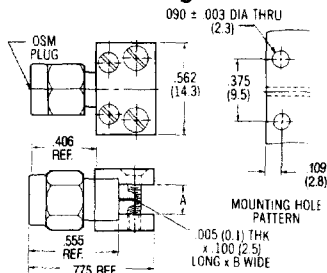
# OSM (SMA)

## For Strip Transmission Line Circuits

Where launching directly to stripline circuits is required, the OSM (SMA) stripline series is the optimum choice. Launching can be accomplished on the end or surface of a circuit board with contact terminations designed to match the electrical performance of most popular ground plane spacing and circuit line widths. Units are available with both non-captured and M/A-COM patented capture techniques.

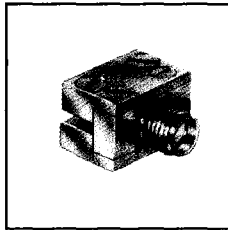


### End Launch Plug

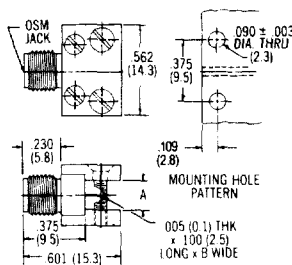


Captured Center Contact* Tab Terminal			
Stripline Size	1/16	1/8	1/4
Part Number	2071-5017-02	2071-5018-02	2071-5019-02
Dim. A	Inches (mm) .062 (1.6)	Inches (mm) .125 (3.2)	Inches (mm) .250 (6.4)
Dim. B	.025 (0.6)	.050 (1.3)	.050 (1.3)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.

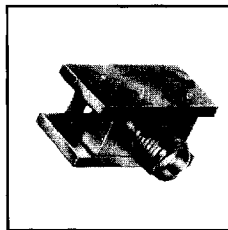


### End Launch Jack

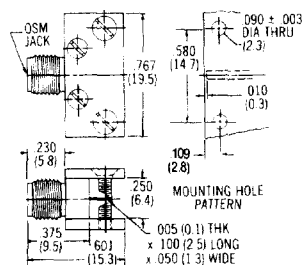


Captured Center Contact* Tab Terminal			
Stripline Size	1/16	1/8	1/4
Part Number	2070-5029-02	2070-5068-02	2070-5069-02
Dim. A	Inches (mm) .062 (1.6)	Inches (mm) .125 (3.2)	Inches (mm) .250 (6.4)
Dim. B	.025 (0.6)	.050 (1.3)	.050 (1.3)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.



### End Launch Jack

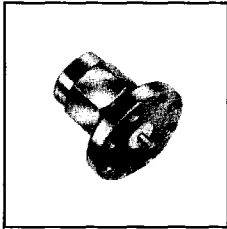


Captured Center Contact* Tab Terminal	
Stripline Size	1/4
Part Number	2070-5009-02

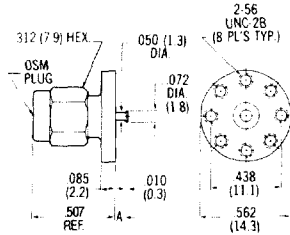
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

## For Strip Transmission Line Circuits

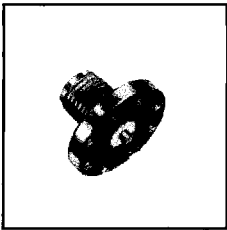


**Surface Launch Plug**

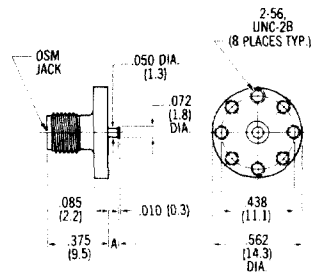


Non-Captured Center Contact* Turret Terminal						
Stripline Size	1/16		1/8		1/4	
Part Number	2067-1401-02		2067-1402-02		2067-1403-02	
Dim. A	Inches	(mm)	Inches	(mm)	Inches	(mm)
	.031	(0.8)	.063	(1.6)	.125	(3.2)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Captured contact designs available with plug-in turret terminal. Contact factory for details.

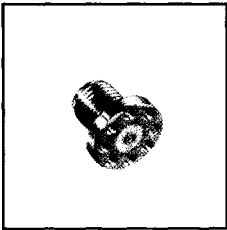


**Surface Launch Jack**

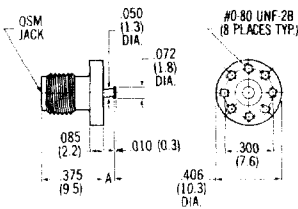


Non-Captured Center Contact* Turret Terminal						
Stripline Size	1/16		1/8		1/4	
Part Number	2066-1401-02		2066-1402-02		2066-1403-02	
Dim. A	Inches	(mm)	Inches	(mm)	Inches	(mm)
	.031	(0.8)	.063	(1.6)	.125	(3.2)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Captured contact designs available with plug-in turret terminal. Contact factory for details.



**Surface Launch Jack**

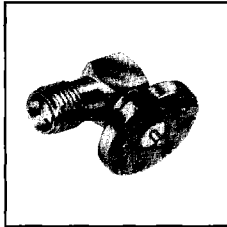


Non-Captured Center Contact* Turret Terminal						
Stripline Size	1/16		1/8		1/4	
Part Number	2066-1321-02		2066-1322-02		2066-1323-02	
Dim. A	Inches	(mm)	Inches	(mm)	Inches	(mm)
	.031	(0.8)	.063	(1.6)	.125	(3.2)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Captured contact designs available with plug-in turret terminal. Contact factory for details.

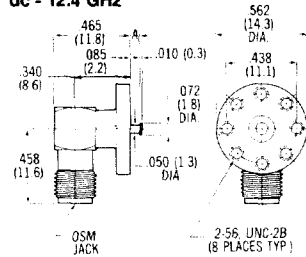
# OSM (SMA)

## For Strip Transmission Line Circuits



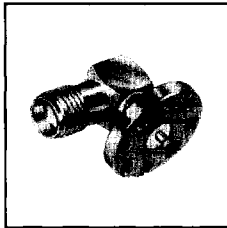
### Surface Launch Right Angle Jack

dc - 12.4 GHz



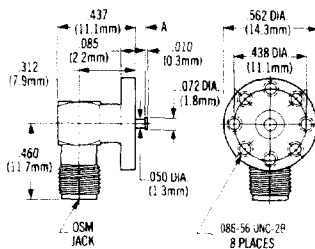
Captured Center Contact Plug-In Turret Terminal			
Stripline Size	1/16	1/8	1/4
Part Number	2068-5157-02	2068-5156-02	2068-5158-02
Dim. A	Inches (mm) .031 (0.8)	Inches (mm) .063 (1.6)	Inches (mm) .125 (3.2)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.



### Surface Launch Right Angle Jack

dc - 18.0 GHz

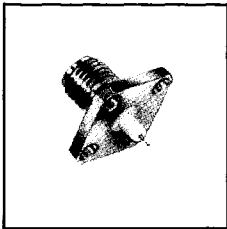


Captured Center Contact Plug-In Turret Terminal			
Stripline Size	1/16	1/8	1/4
Part Number	2068-1431-02	2068-1432-02	2068-1433-02
Dim. A	Inches (mm) .031 (0.8)	Inches (mm) .063 (1.6)	Inches (mm) .125 (3.2)

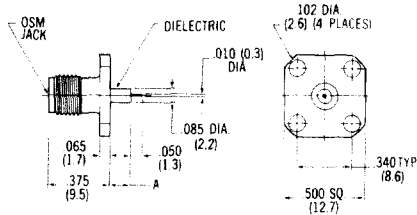
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.

# OSM (SMA)

## For Microstrip Transmission Line Circuits

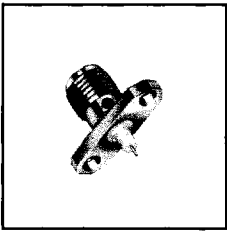


**Flange Mount Jack Receptacle**

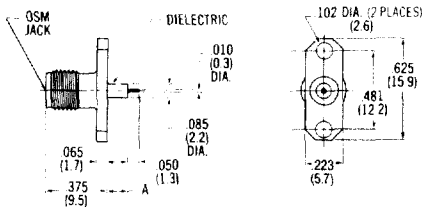


Captured Center Contact* Straight Terminal				
Part Number	2052-1215-02		2052-1216-02	
Dim. A	Inches	(mm)	Inches	(mm)
	.125	(3.2)	.057	(1.4)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Jack Receptacle**

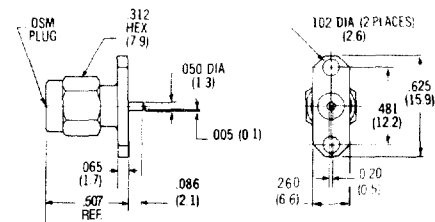


Captured Center Contact* Straight Terminal				
Part Number	2052-5674-02		2052-5675-02	
Dim. A	Inches	(mm)	Inches	(mm)
	.125	(3.2)	.057	(1.4)

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.

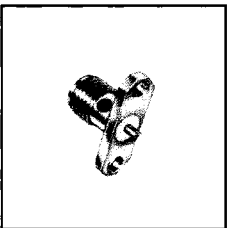


**Flange Mount Plug Receptacle**

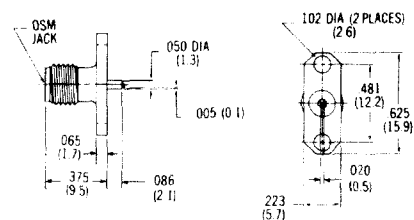


Captured Center Contact* Solderless Compression Terminal	
Part Number	2051-5161-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Jack Receptacle**

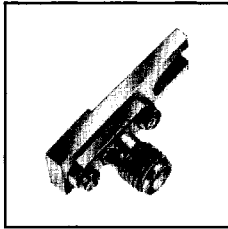


Captured Center Contact* Solderless Compression Terminal	
Part Number	2052-5277-02

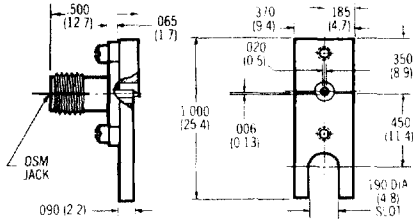
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to 00.  
\* Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

## For Microstrip Transmission Line Circuits

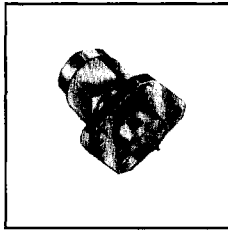


**Jack Connector & Mounting Plate Assembly**  
MIC Test Fixture

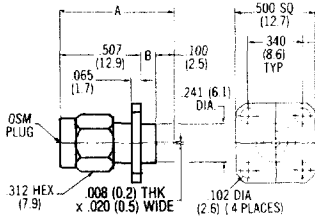


Part Number	2052-5416-00
-------------	--------------

Finish: Connector passivated stainless steel, base plate 6061 iridized aluminum.

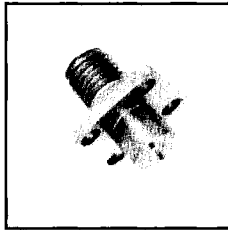


**Flange Mount Plug Receptacle**

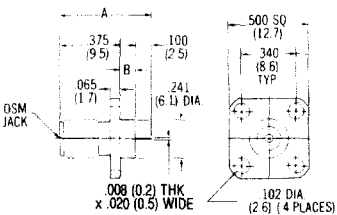


Captured Center Contact* Tab Terminal			
Part Number	2051-1131-00	2051-1132-00	2051-1133-00
Dim. A	Inches (mm) .700 Ref. (17.8)	Inches (mm) .732 Ref. (18.6)	Inches (mm) .794 Ref. (20.2)
Dim. B	.093 (2.4)	.125 (3.2)	.187 (4.8)

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to 02.  
\* Contact captivation per U.S. patent number 3,292,117.

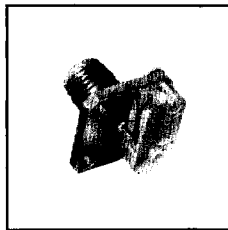


**Flange Mount Jack Receptacle**

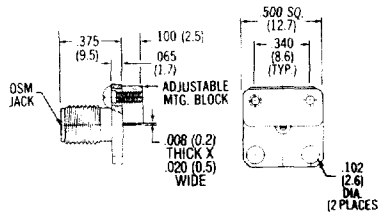


Captured Center Contact* Tab Terminal			
Part Number	2052-1131-00	2052-1132-00	2052-1133-00
Dim. A	Inches (mm) .568 Ref. (14.5)	Inches (mm) .600 Ref. (15.2)	Inches (mm) .662 Ref. (16.8)
Dim. B	.093 (2.4)	.125 (3.2)	.187 (4.8)

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to 02.  
\* Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Jack Receptacle**

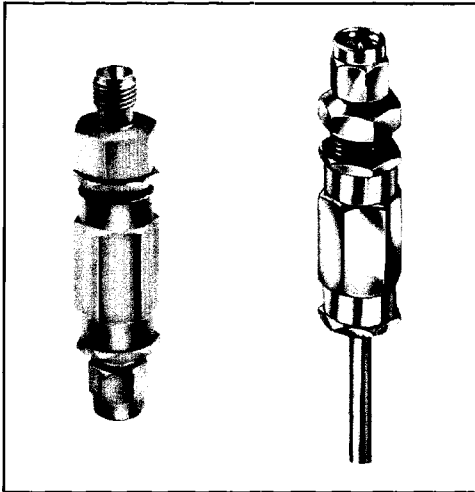


Captured Center Contact* Tab Terminal	
Part Number	2052-1130-00

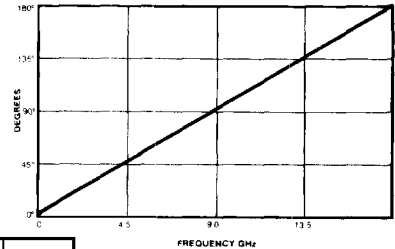
Finish: Connector gold plate, mounting block clear polystyrene. For passivated stainless steel connector, change the Part Number suffix from -00 to 02.  
\* Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

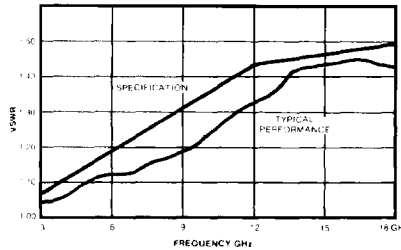
## Adjustable Phase Trimmers



ADJUSTMENT RANGE OF STANDARD PHASE TRIMMERS

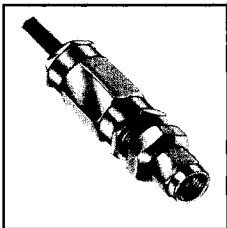


PART NUMBER 2001-5190-02  
 1.06 - 02 GHz 5 - 12.4 GHz  
 VSWR: 1.3 - 01 GHz 12.4 - 18.0 GHz

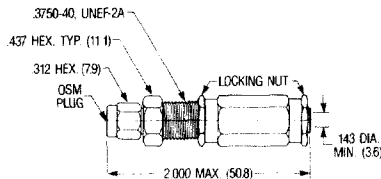


These coaxial phase trimmers are designed and manufactured to provide precise, continuously adjustable changes in line length from 500 MHz to 18 GHz. The gold plated, heat treated beryllium copper spring fingers on both the inner and outer contact assure smooth adjustment without spurious electrical discontinuities across the

frequency band. Spring loading of the threads minimizes backlash and assures the setting will not be altered when locking mechanisms are secured. The connectors, housing and/or cable attachment are made of stainless steel for strength and reliability.

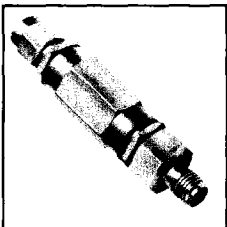


Plug to .141 Semi-Rigid Cable

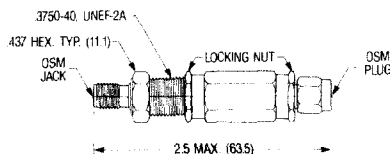


Captured Center Contact* .5 - 8.0 GHz	
Part Number	2001-5190-02
Captured Center Contact* 8.0 - 18.0 GHz	
Part Number	2001-5231-02

Finish: Passivated stainless steel. For gold plate, change the Part number suffix from -02 to -00.  
 \* Contact captivation per U.S. patent number 3,292,117.



Jack to Plug



Captured Center Contact* .5 - 8.0 GHz	
Part Number	2082-5809-02
Captured Center Contact* 8.0 - 18.0 GHz	
Part Number	2082-5810-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
 \* Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

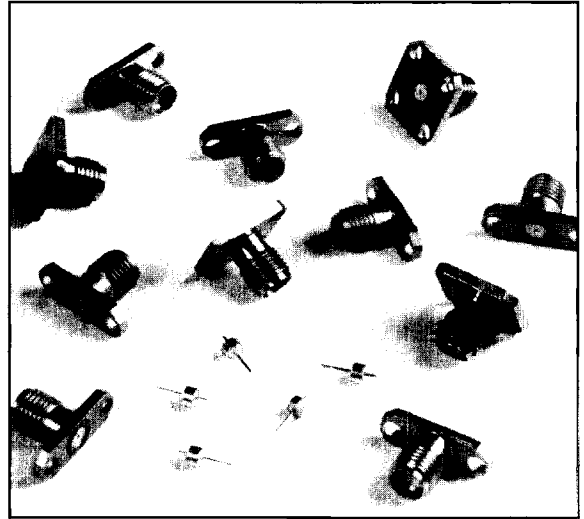
## Field Replaceable Hermetic Launchers With Drop-in Seals

Drop-in circuit packaging and other microwave integrated circuits with process conditioning requirements, such as MIL-M-38510 and MIL-STD-883, have made the field replaceable hermetic connector an essential element of interconnect design and application. The ability to replace a damaged connector without violating the hermetic enclosure or circuit makes this a valuable design alternative.

The field replaceable features a drop-in glass seal which is external to the connector body. This seal is soldered or brazed into the package housing. Another option when using kovar or stainless steel packages is to directly fuse the seal into the package, using the housing wall as the outer conductor.

To protect against EMI/RFI leakage, many of the connectors are designed with a silver loaded elastomer gasket. In addition, the standard units feature a mechanically captured center contact which will exhibit lower EMI/RFI leakage than epoxy captured units.

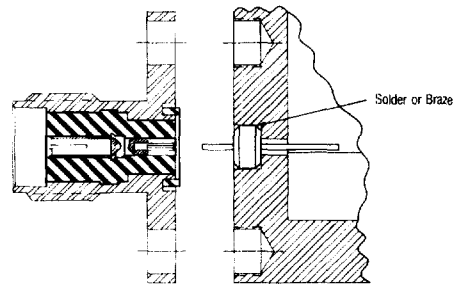
Connectors are available to accept .012, .015, .018 and .020 inch hermetic seal pins, as well as a .036 inch contact pin. The choice of pin diameter will typically depend on the dimensions and material of the microstrip line to which the pin is being launched. A variety of flange and panel feedthrough designs are available.



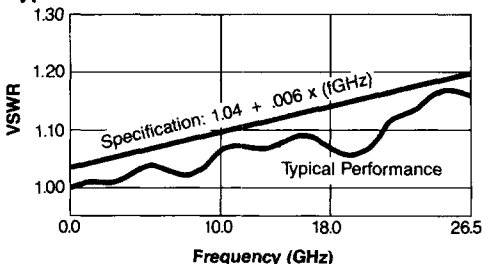
### Field Replaceable Electrical Performance

	VSWR to 18 GHz	RF Leakage (dB) (mechanical captivation)
Connector Only	1.04 + .006f	
Seal Only	1.02 + .003f	-(70 - fGHz)
Connector and Seal	1.06 + .01f	

### Field Replaceable Drop-In Seal (Solder/Braze-in Seal)



### Typical Performance



See Appendix for additional information on Hermetic Launchers.

M/A-COM, Inc.

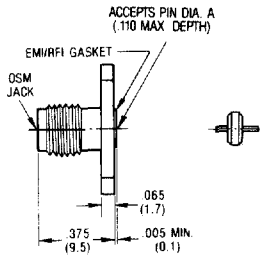
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North America: Tel. (800) 366-2266  
Fax (800) 618-8883

Asia/Pacific: Tel. +85 2 2111 8088  
Fax +85 2 2111 8087

Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

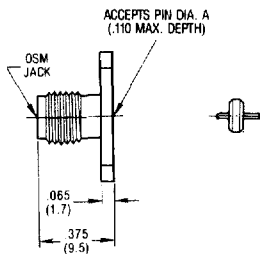
### Jack Receptacle With EMI/RFI Gasket



Part Number		Flange Type	Accepts Pin Dia. A	Mounting Hole Detail
Connector Only	Connector and Seal			
2052-3350-02	2052-3351-02	I	.012	E
2052-3500-02	2052-3506-02	I	.015	E
2052-3352-02	2052-3353-02	I	.018	F
2052-3393-02	2052-3507-02	II	.012	I
2052-3501-02	2052-3508-02	II	.015	I
2052-3375-02	2052-3509-02	II	.018	J
2052-3354-02	2052-3355-02	III	.012	C
2052-3502-02	2052-3510-02	III	.015	C
2052-3356-02	2052-3357-02	III	.018	D
2052-3399-02	2052-3511-02	IV	.012	K
2052-3503-02	2052-3512-02	IV	.015	K
2052-3400-02	2052-3513-02	IV	.018	L

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Recommended Mounting Hole Details at the end of this section. Refer to recommended assembly tools in Tool Section.

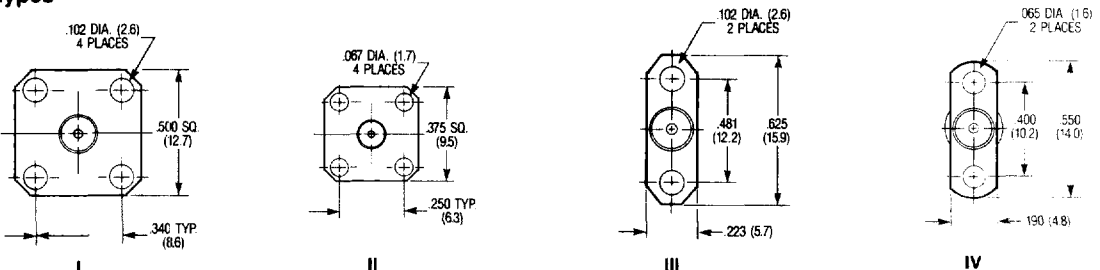
### Jack Receptacle Without EMI/RFI Gasket



Part Number		Flange Type	Accepts Pin Dia. A	Mounting Hole Detail
Connector Only	Connector and Seal			
2052-3362-02	2052-3326-02	I	.020	G
2052-3358-02	2052-3337-02*	I	.036*	-
2052-3363-02	2052-3324-02	III	.020	A
2052-3359-02	2052-3325-02*	III	.036*	-
2052-0434-02**	2052-0435-02**	III	.020	A

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. \* Provided with sliding contact Part Number 2098-3252-01 in place of seal. \*\* Epoxy captivated center contact per U.S. patent number 3,292,117. Refer to Recommended Mounting Hole Details at the end of this section. Refer to recommended assembly tools in Tool Section.

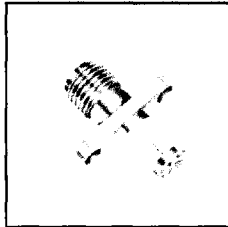
### Flange Types



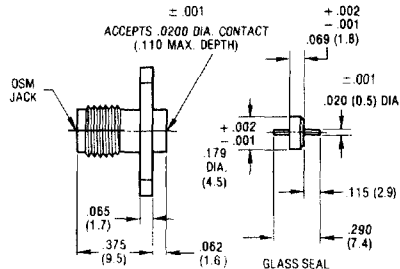


# OSM (SMA)

## Hermetic Launchers

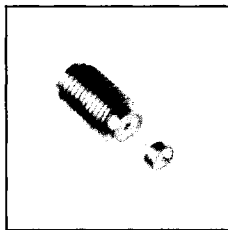


**Field Replaceable Jack Receptacle With Self-Locating Seal**

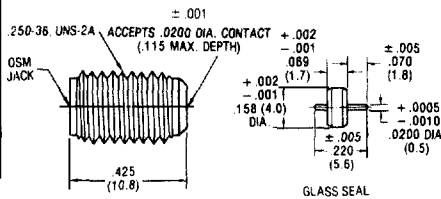


<b>Part Number</b>	<b>2052-0207-00</b>
--------------------	---------------------

Uses self-locating glass seal part number 2098-3347-94.  
Epoxy captivated center contact per U.S. patent number 3,292,117.  
Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02.  
Refer to Recommended Mounting Hole Detail B at the end of this section.  
Refer to recommended assembly tools in Tool Section.

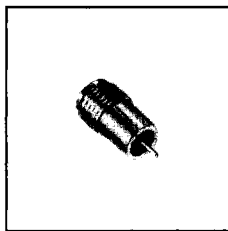


**Field Replaceable Panel Feedthrough Jack Receptacle**

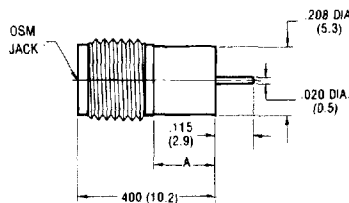


Mechanical Center Contact Captivation			
	Connector Only	Connector and Seal	Mounting Hole Detail
<b>Part Number</b>	<b>2058-5328-02</b>	<b>2058-5329-02</b>	H
Epoxy Center Contact Captivation*			
<b>Part Number</b>	<b>2058-3472-02</b>	<b>2058-3473-02</b>	H

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\* Epoxy captivated center contact per U.S. patent number 3,292,117.  
Refer to Recommended Mounting Hole Details at the end of this section.  
Refer to recommended assembly tools in Tool Section.



**Non-Field Replaceable Panel Feedthrough Jack Receptacle**



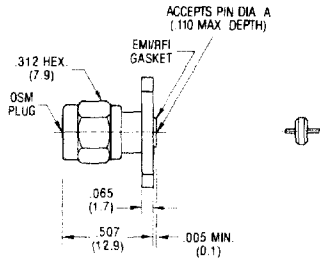
VSWR (GHz): 1.05 + .011GHz			
RF Leakage (dB): -(100 - fGHz)			
<b>Part Number</b>	<b>2058-3121-00</b>	<b>2058-3122-00</b>	<b>2058-3123-00</b>
<b>Dim. A</b>	Inches (mm)	Inches (mm)	Inches (mm)
	.093 (2.4)	.125 (3.2)	.187 (4.8)

Finish: Gold plate.

# OSM (SMA)

## Field Replaceable Hermetic Launchers

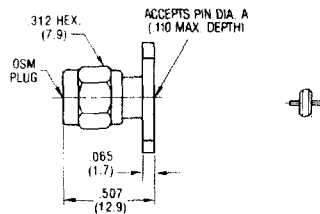
### Plug Receptacle With EMI/RFI Gasket



Part Number		Flange Type	Accepts Pin Dia. A	Mounting Hole Detail
Connector Only	Connector and Seal			
2051-3350-02	2051-3351-02	I	.012	E
2051-3352-02	2051-3353-02	I	.018	F
2051-3354-02	2051-3355-02	II	.012	C
2051-3356-02	2051-3357-02	II	.018	D

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. Refer to Recommended Mounting Hole Details at the end of this section. Refer to recommended assembly tools in Tool Section.

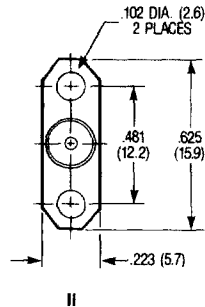
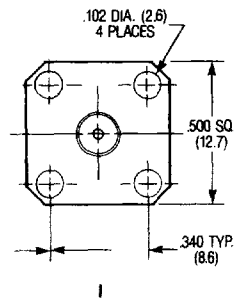
### Plug Receptacle Without EMI/RFI Gasket



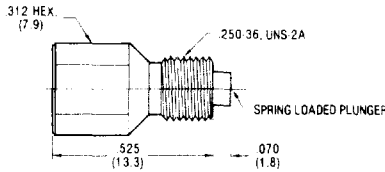
Part Number		Flange Type	Accepts Pin Dia. A	Mounting Hole Detail
Connector Only	Connector and Seal			
2051-3362-02	2051-3326-02	I	.020	G
2051-3358-02	2051-3327-02	I	.036*	-
2051-3363-02	2051-3324-02	II	.020	A
2051-3359-02	2051-3325-02	II	.036*	-

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00. \* Uses sliding contact Part Number 2098-3252-01 (non-hermetic). Refer to Recommended Mounting Hole Details at the end of this section. Refer to recommended assembly tools in Tool Section.

### Flange Types



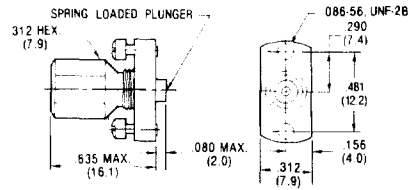
### Panel Mount Soldering Fixture



Part Number **2098-5614-54**

Tool for fixturing hermetic seal of panel mount receptacle while soldering into MIC panel.

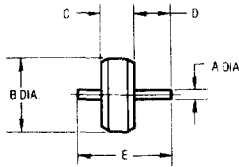
### Flange Mount Soldering Fixture



Part Number **2098-5615-54**

Tool for fixturing hermetic seal of flange mount receptacle while soldering into MIC package.

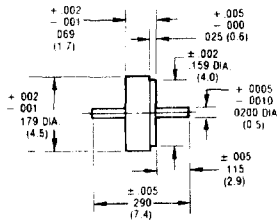
### Braze/Solder-In Thermally Matched Hermetic Seals



Part Number	Dimensions (Inches)				
	A (Nom.)	B	C	D	E
2098-3250-94	.012	.100	.063	.180	.315
2098-3441-94	.015	.100	.063	.180	.315
2098-3251-94	.018	.112	.063	.180	.315
2098-3322-94	.020	.157	.060	.060	.190
2098-0294-00	.020	.158	.069	.070	.220
2098-3323-94	.020	.158	.069	.229	.375

Consult the factory for additional seals not listed.

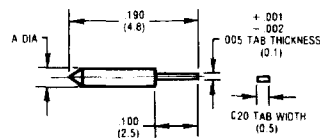
### Self-Locating Glass Seal



Part Number **2098-3347-94**

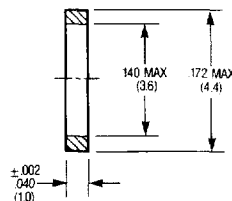
Outer ring and center pin are gold plated.

### Field Replaceable Contact For Use With Connectors Without Seals



Part Number	Dim. A	+ .0010 - .0005
2098-3253-01	.020	
2098-3252-01	.036	

### EMI/RFI Gasket

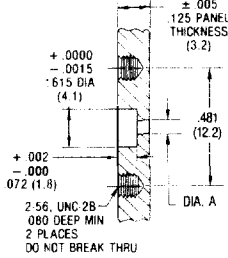


Part Number **2098-3333-54**

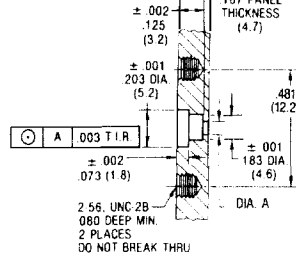
Consult appropriate Assembly Procedure for complete mounting procedure.

Pin Dia.	Dia. A
.012	.027
.015	.034
.018	.041
.020	.046

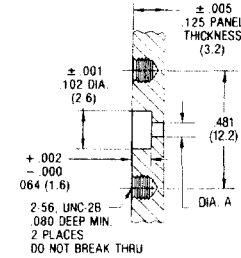
**Detail A**



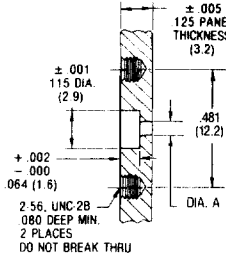
**Detail B**



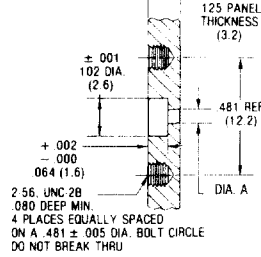
**Detail C**



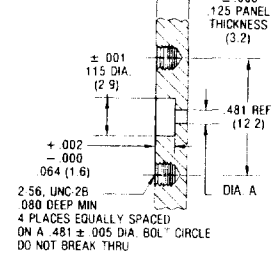
**Detail D**



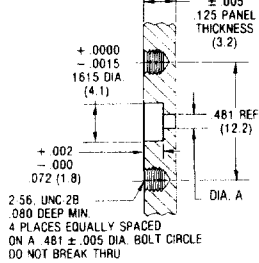
**Detail E**



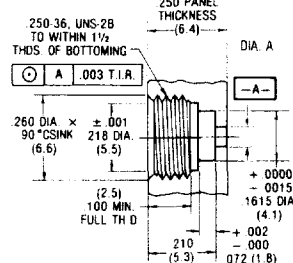
**Detail F**



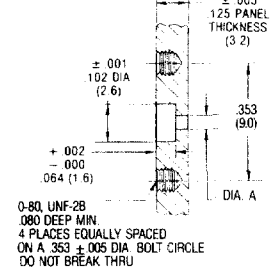
**Detail G**



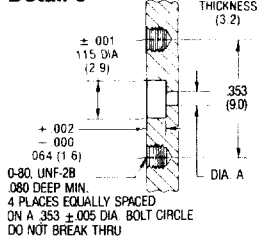
**Detail H**



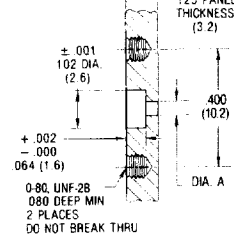
**Detail I**



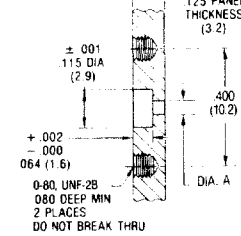
**Detail J**



**Detail K**



**Detail L**



# OSM (SMA)

## Hermetic Panel Feedthrough With Metal-to-Metal Seal (Spark Plugs)

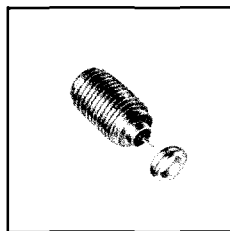
Hermetic panel feedthrough connectors feature an internal hermetic glass seal and a metal-to-metal hermetic seal between the connector and package. Connectors utilizing metal-to-metal seals are commonly referred to as spark plugs because they achieve this seal simply by being torqued into place in a manner similar to an automotive spark plug.

M/A-COM offers four types of metal-to-metal seals: rigid gasket, compressable gasket, knife edge gasket and formable gasket. The rigid gasket is made of stainless steel and is recommended for hard metal packages (i.e. kovar and steel) or aluminum packages with a wall thickness of .080 inch or greater. The compressable

gasket is made of kovar material and is designed to work well on aluminum as well as other materials. The formable gasket is made of copper. With this gasket the connector can be re-installed several times without damage to the package housing. The knife edge design incorporates the gasket as an integral part of the connector body. This version is one piece construction without a separate seal gasket.

Also available from M/A-COM is a replaceable two-piece panel feedthrough spark plug connector. With this design, the inner piece can remain intact and hermeticity maintained while the outer half can be removed and replaced. This is an important feature should the outer threads become damaged through mishandling.

### Jack Receptacle



Part Number	Gasket Type	Dimensions				Figure	VSWR (GHz)	RF Leakage (dB)
		A	B	C	D			
2058-5119-00	Rigid	.451	.080	.040	.250	1	1.04 + .009f	-(100 - fGHz)
2058-3317-00	Rigid	.451	.058	.040	.250	1		
2058-5278-00	Rigid	.451	.120	.040	.250	1		
2058-5392-00	Rigid	.451	.150	.040	.250	1		
2058-3394-00	Rigid	.451	.120	.080	.290	1		
2058-5397-00	Rigid	.451	.180	.080	.290	1		
2058-3256-00	Rigid	.451	.480	.440	.625	1		
2058-5352-00	Rigid	.585	.080	.040	.250	1		
2058-3250-00	Rigid	1.080	.058	.040	.250	1		
2058-3401-00	Compression	.451	.058	.040	.250	1		
2058-3415-00	Compression	.451	.080	.040	.250	1		
2058-5126-00	Formable	.451	.080	.040	.250	2		
2058-5219-00	Knife Edge	.451	.080	.040	.250	3		

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10. Installation Thermal Limit: 250°C. Refer to recommended assembly tools in Tool Section.

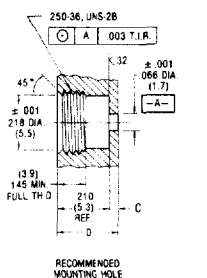
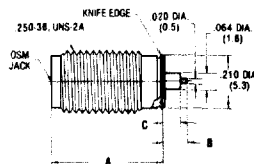
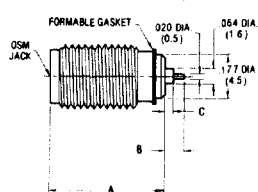
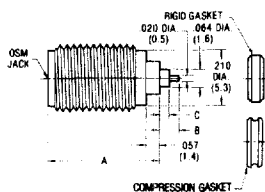


Fig. 1

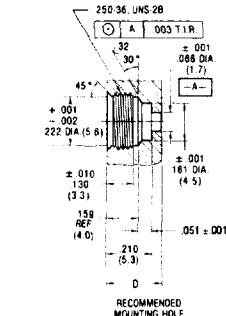


Fig. 2

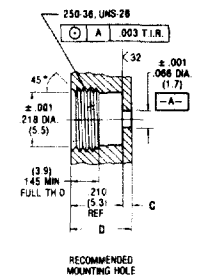


Fig. 3

M/A-COM, Inc.

57

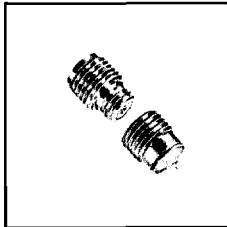
North America: Tel. (800) 366-2266  
Fax (800) 618-8883

Asia/Pacific: Tel. +85 2 2111 8088  
Fax +85 2 2111 8087

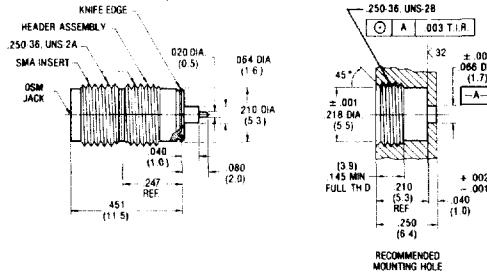
Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

# OSM (SMA)

## Hermetic Panel Feedthrough With Metal-to-Metal Seal (Spark Plugs)

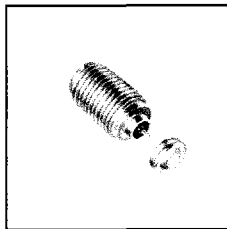


**Two-Piece Jack Receptacle**

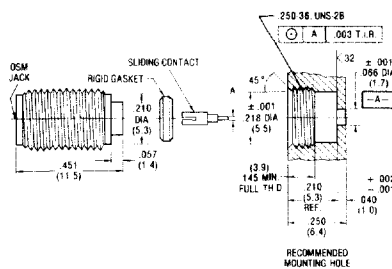


Field Replaceable VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)	
<b>Part Number</b>	<b>2058-3333-00</b>

Connector interface can be replaced without loss of package hermeticity.  
Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10. For gold plated header and passivated stainless steel replaceable SMA insert, change the Part Number suffix to -01.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.

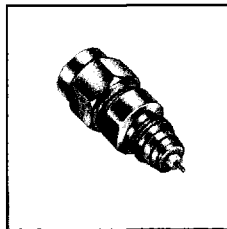


**Jack Receptacle With Sliding Contact**

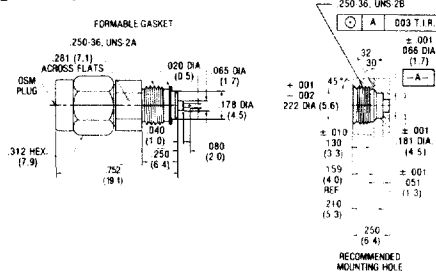


Rigid Gasket Seal VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)		Dim. A
<b>Part Number</b>	<b>2058-5269-00</b>	.020 Dia. Pin
<b>Part Number</b>	<b>2058-5305-00</b>	.020W x .006 Thick Tab

Recommended for applications where the MIC package is subject to extremes of temperature variations.  
Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.



**Plug Receptacle**

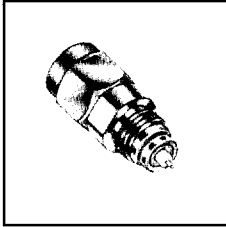


Formable Gasket VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)	
<b>Part Number</b>	<b>2057-5036-00</b>

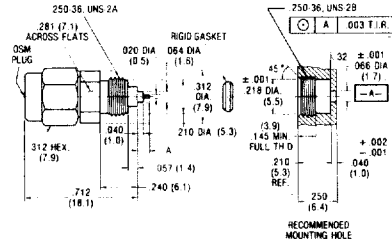
Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.

# OSM (SMA)

## Hermetic Panel Feedthrough With Metal-to-Metal Seal (Spark Plugs)

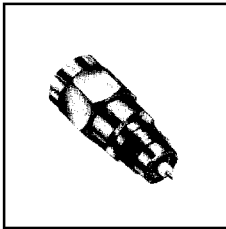


**Plug Receptacle**

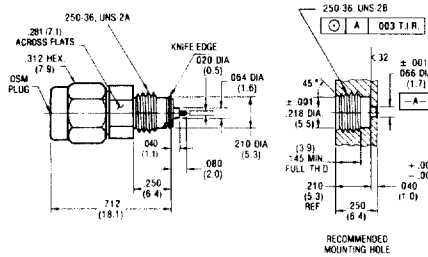


Rigid Gasket Seal VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)		Dim. A
<b>Part Number</b>	<b>2057-5119-00</b>	Inches (mm) .080 (2.0)
	<b>2057-3221-00</b>	.058 (1.5)

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.

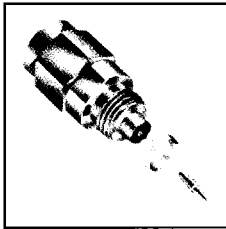


**Plug Receptacle**

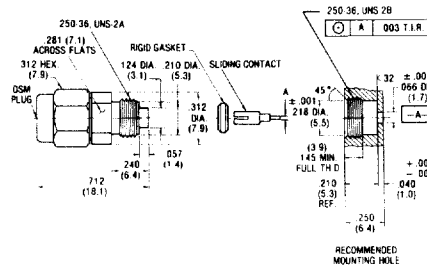


Knife Edge Seal VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)		Dim. A
<b>Part Number</b>	<b>2057-5035-00</b>	

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.



**Plug Receptacle**



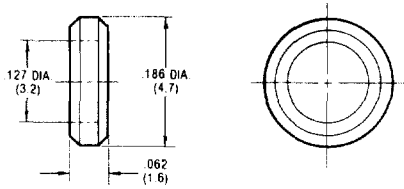
Rigid Gasket Seal VSWR (GHz): 1.04 + .009f RF Leakage (dB): -(100 - fGHz)		Dim. A
<b>Part Number</b>	<b>2057-3217-00</b>	.020 Dia. Pin
	<b>2057-3233-00</b>	.020W x .006 Thick Tab

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. For nickel plate, change the Part Number suffix to -10.  
Installation Thermal Limit: 250°C.  
Refer to recommended assembly tools in Tool Section.

# OSM (SMA)

## Metal-to-Metal Hermetic Seal Accessories

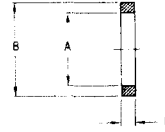
### Rigid Gasket



<b>Part Number</b>	<b>2098-3213-94</b>
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Gasket for rigid gasket connector types.

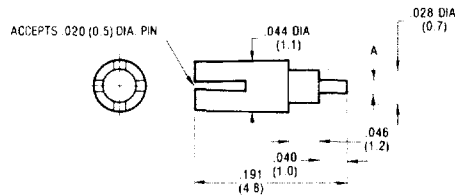
### Formable Gasket



Part Number	Dim. A	Dim. B	Dim. C
<b>2098-3303-09</b>	Inches (mm) .179 (4.6)	Inches (mm) .215 (5.4)	Inches (mm) .015 (0.4)
<b>1098-3201-09</b>	.119 (3.0)	.155 (3.9)	.010 (0.3)

Gasket for formable gasket connector types.

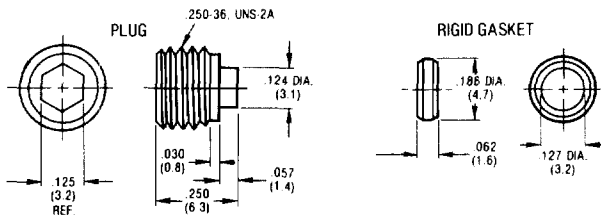
### Sliding Contact



Part Number	Dim. A
<b>2098-3236-01</b>	.020 Dia. Pin
<b>2098-3235-01</b>	.020W x .006 Thk. Tab

Contact for sliding pin connector types.

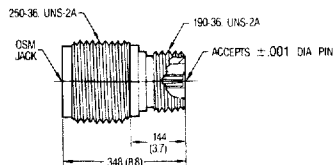
### Seal Plug With Gasket



<b>Part Number</b>	<b>2098-0544-10</b>
--------------------	---------------------

Used to seal unused ports or a gas fill hole in MIC packages. This plug mounts in the same hole as the rigid gasket and knife edge type connectors.

### Replaceable SMA Insert For Part Number 2058-3333-00



<b>Part Number</b>	<b>2098-0967-02</b>
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Finish: Passivated stainless steel, for gold plate, change the Part Number suffix from -02 to -00.



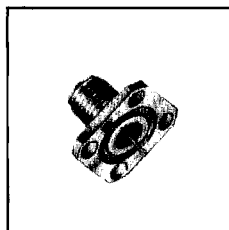
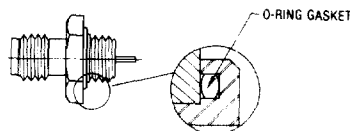
# OSM (SMA)

## O-Ring Gasket Hermetic Seal

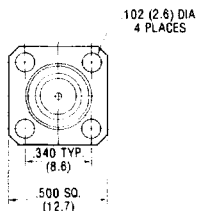
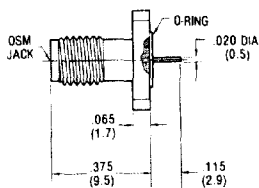
Hermetic coaxial RF connectors using an elastomer gasket to seal to the housing are available in a wide variety of configurations. This gasketing method is particularly useful in applications where the connector may have to be removed and re-installed several times. The elastomer o-ring gasket requires only enough pressure to compress to achieve a seal to a machined surface. These types of seals are generally used where environmental exposure is not severe since changes in the elastomer material can occur over long periods of time.

All units in this group are manufactured with a direct fused glass seal to the stainless steel housing rather than

brazing or soldering. The center contact is soldered to the seal pin with a solder that is eutectic at 221°C in standard versions.

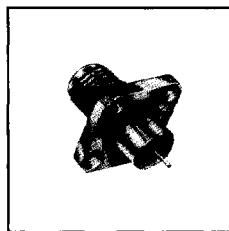


**Flange Mount Jack Receptacle**

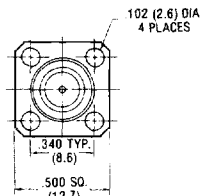
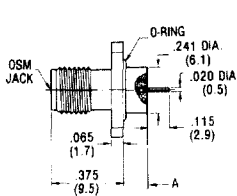


VSWR (GHz): 1.05 + .01f	
RF Leakage (dB): -(70 - fGHz)	
<b>Part Number</b>	<b>2052-3100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

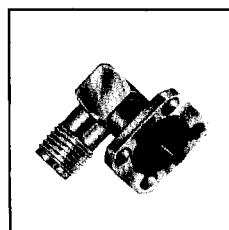


**Flange Mount Jack Receptacle**

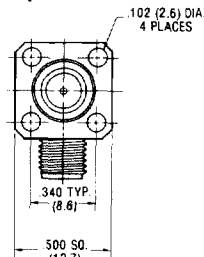
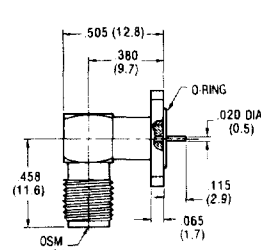


VSWR (GHz): 1.05 + .01f		Dim. A	
RF Leakage (dB): -(70 - fGHz)			
<b>Part Number</b>	<b>2052-3121-00</b>	Inches	(mm)
	<b>2052-3122-00</b>	.089	(2.3)
	<b>2052-3123-00</b>	.121	(3.1)

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

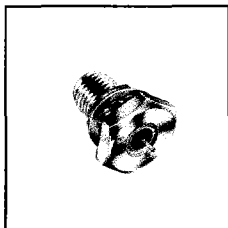


**Flange Mount Right Angle Jack Receptacle**

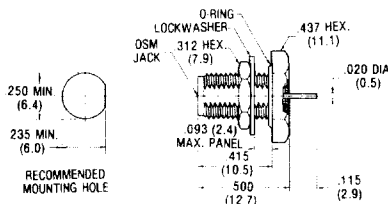


VSWR (GHz): 1.15 + .015f	
RF Leakage (dB): -(70 - fGHz)	
<b>Part Number</b>	<b>2054-3100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

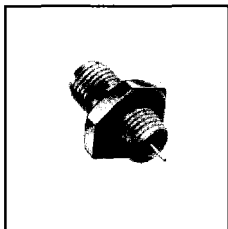


**Rear Mount Bulkhead Feedthrough Jack Receptacle**

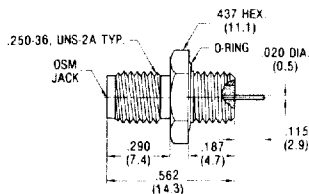


VSWR (GHz): 1.05 + .01f	
RF Leakage (dB): -(70 - fGHz)	
<b>Part Number</b>	<b>2056-3100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

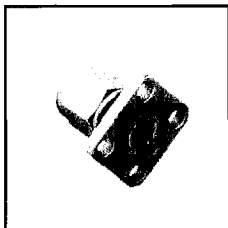


**Front Mount Bulkhead Feedthrough Jack Receptacle**

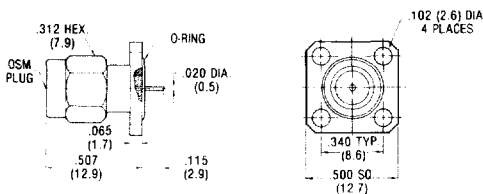


VSWR (GHz): 1.05 + .01f	
RF Leakage (dB): -(70 - fGHz)	
<b>Part Number</b>	<b>2056-3100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.



**Flange Mount Plug Receptacle**

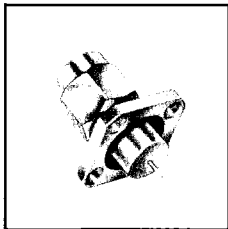


VSWR (GHz): 1.05 + .01f	
RF Leakage (dB): -(70 - fGHz)	
<b>Part Number</b>	<b>2051-3100-00</b>

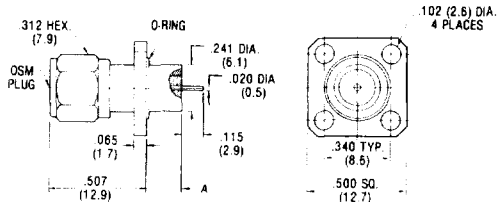
Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

# OSM (SMA)

## O-Ring Gasket Hermetic Seal

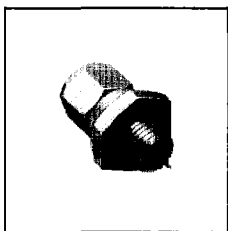


**Flange Mount Plug Receptacle**

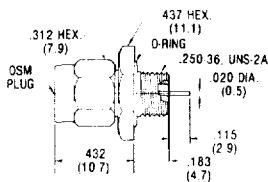


VSWR (GHz): 1.05 + .01f RF Leakage (dB): -(70 - fGHz)		Dim. A	
Part Number	2051-3121-00	Inches	(mm)
	2051-3122-00	.121	(3.1)
	2051-3123-00	.183	(4.6)

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.



**Front Mount Bulkhead Feedthrough Plug Receptacle**

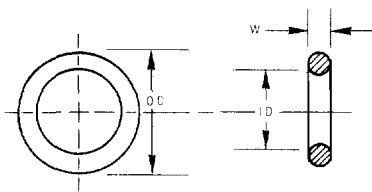


VSWR (GHz): 1.05 + .01f RF Leakage (dB): -(70 - fGHz)	
Part Number	2057-3100-00

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

### Selection Guides

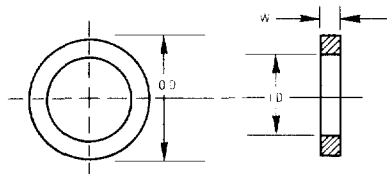
#### O-Ring (Elastomer)



Part Number	Actual Size (Inches)					Fractional Reference		
	I.D.	±Tol.	W.	±Tol.	Mean O.D. (Ref.)	I.D.	O.D.	W.
2098-3300-54	.146	.005	.031	.005	.203	9/64	13/64	1/32
2098-3327-54	.204	.005	.070	.005	.344	13/64	11/32	1/16
1098-3205-54	.208	.005	.030	.005	.266	7/32	17/64	1/32
2098-3328-54	.239	.005	.051	.005	.341	15/64	11/32	1/2
2098-3326-54	.239	.005	.070	.005	.375	1/4	3/8	1/16
2098-3307-54	.245	.005	.045	.005	.335	1/4	21/64	3/64
2098-3325-54	.275	.005	.040	.005	.355	9/32	23/64	13/32
2098-3265-54	.301	.005	.070	.005	.438	5/16	7/16	1/16

Additional o-rings available. Consult factory.

#### Gasket



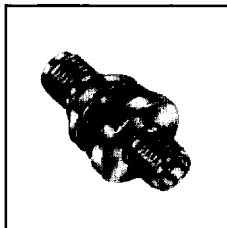
Part Number	Actual Size (Inches)						Fractional Reference		
	I.D.	±Tol.	W.	±Tol.	O.D.	±Tol.	I.D.	O.D.	W.
1098-3204-54	.125	.003	.025	.003	.196	+ .002 - .003	1/8	13/64	1/32
2098-3282-54	.173	.002	.025	.002	.234	.002	11/64	15/64	1/32
1098-3203-54	.250	.005	.062	.005	.375	.005	1/4	3/8	5/8

Additional gaskets available. Consult factory.

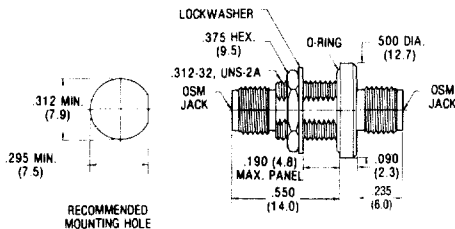
# OSM (SMA)

## Hermetically Sealed Feedthroughs • Adapters

### Bulkhead Feedthrough Adapters

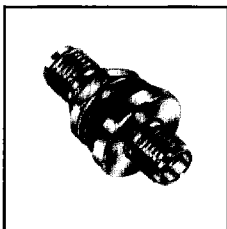


**Jack to Jack**

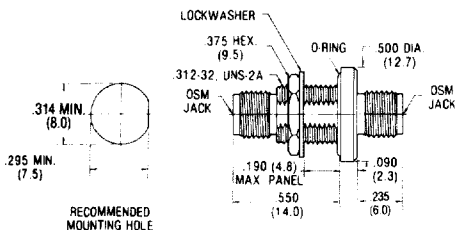


VSWR (GHz): 1.10 + .01f
RF Leakage (dB): -(100 - fGHz)
<b>Part Number 2084-1100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -0C to -02.



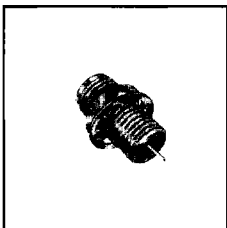
**Jack to Jack**



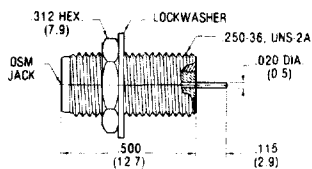
MIL-A-55339/28-30001
DC - 12.4 GHz
VSWR (GHz): 1.10 + .015f
RF Leakage (dB): -(100 - fGHz)
<b>Part Number 2084-8001-90</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -90 to -92.

### Panel Feedthrough



**Jack Receptacle**



VSWR (GHz): 1.05 + .01f
RF Leakage (dB): -(100 - fGHz)
<b>Part Number 2058-5027-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02. On passivated versions, pins are pre-tinned using Sn60 solder.

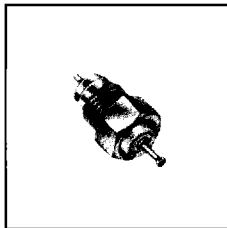
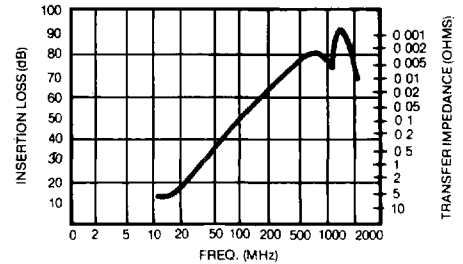
# OSM (SMA)

## Filter Connectors

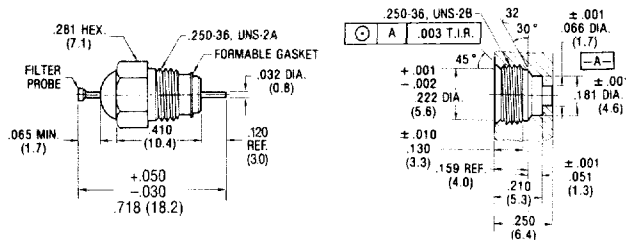
### Specifications

<b>Minimum Attenuation:</b>	45 dB from 200 MHz to 2000 MHz over the temperature range of -55°C to +125°C.
<b>Capacitance:</b>	1000pf minimum @ 1KHz .5 to 5 volts rms 25°C.
<b>Working Voltage:</b>	200 Vdc
<b>Dielectric Strength:</b>	600 Vdc for 1 sec. (50ma max. charging current)
<b>Operating Temperature Range:</b>	-55°C to +125°C.
<b>Insulation Resistance:</b>	10K megohms min. at 100 Vdc. 50ma max. charging current, 25°C.
<b>DC Resistance:</b>	0.01 ohm max.
<b>DC and low frequency current:</b>	5 amperes max.
<b>RF Current:</b>	0.25 amperes max.
<b>Life Test:</b>	1000 hours @ 400 Vdc at 125°C. After life IR shall be 1000 megohms minimum.

### Typical Attenuation Characteristics Measured at +25°C.

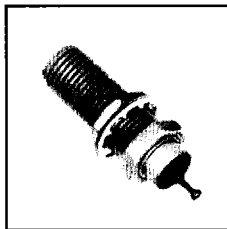


**Bulkhead Feedthrough Jack**

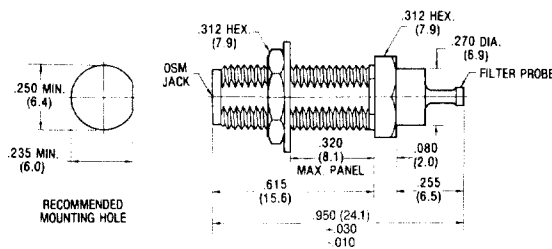


<b>Part Number</b>	<b>9056-5005-00</b>
--------------------	---------------------

Finish: Gold plate



**Bulkhead Feedthrough Jack**



<b>Part Number</b>	<b>2056-6200-00</b>
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Finish: Gold plate.  
Plug version available. Order Part Number 2057-6200-00.

# OSM (SMA)

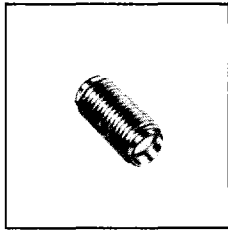
## In-Series Adapters

OSM In-Series Adapters are used to join various combinations of OSM connectors, and also to feed circuits through bulkheads and panels with single-hole mounting. All have captured center contacts.

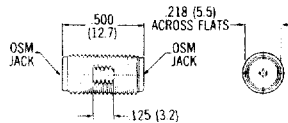
Right angle in-series adapters are manufactured using laser welded center contacts and hard brazed housing

sub-assemblies. This approach is used because of the tighter tolerances possible with machined housings and contacts, guaranteeing tighter interface tolerances than required by MIL-C-39012.

All center contacts are designed to withstand hundreds of mating cycles.

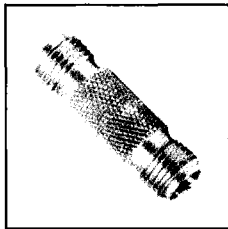


**Jack to Jack Adapter**

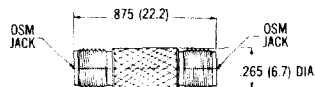


DC-18.0 GHz*	
Max. VSWR 1.05 + .005fGHz	
Part Number	2080-0000-02
Mechanically Captured Contact	
Part Number	2080-1900-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

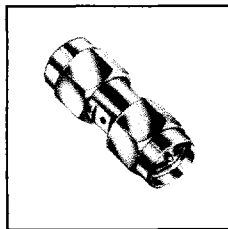


**Jack to Jack Adapter With Knurl**

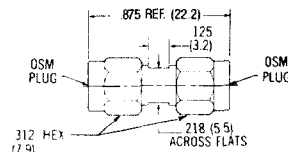


DC-18.0 GHz*	
Max. VSWR 1.05 + .005fGHz	
Part Number	2080-5055-02

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.



**Plug to Plug Adapter**

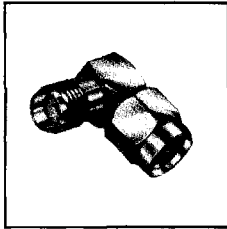


DC-18.0 GHz*	
Max. VSWR 1.05 + .005fGHz	
Part Number	2081-0000-02
Mechanically Captured Contact	
Part Number	2081-1900-02

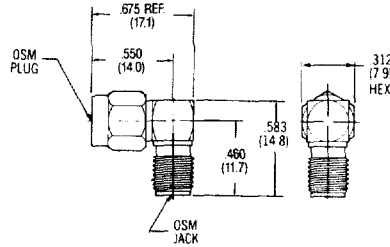
Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

# OSM (SMA)

## In-Series Adapters

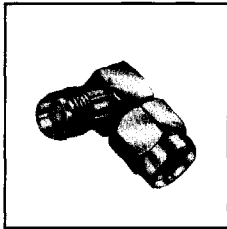


**Plug to Jack Adapter Right Angle**

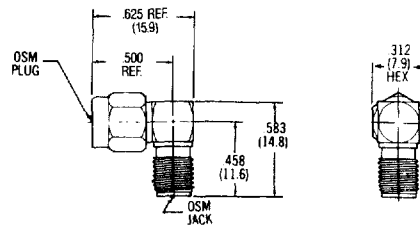


DC-18.0 GHz	
<b>Part Number</b>	<b>2088-1230-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

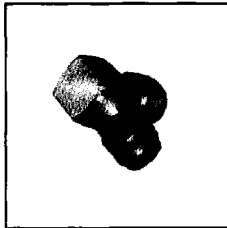


**Plug to Jack Adapter Right Angle**

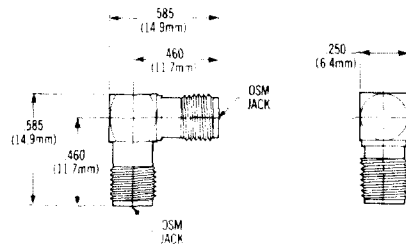


DC-12.4 GHz	
<b>Part Number</b>	<b>2088-0000-02</b>
DC-18.0 GHz	
<b>Part Number</b>	<b>2088-5013-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

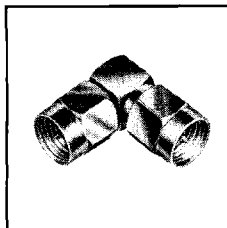


**Jack to Jack Adapter Right Angle**

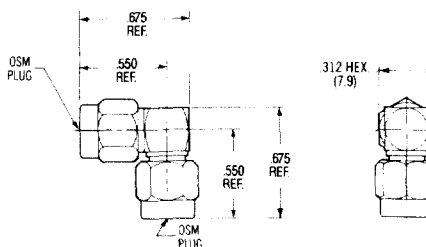


DC-12.4 GHz	
<b>Part Number</b>	<b>2086-0000-02</b>
DC-18.0 GHz	
<b>Part Number</b>	<b>2086-1230-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.



**Plug to Plug Adapter Right Angle**



DC-18.0 GHz	
<b>Part Number</b>	<b>2087-1230-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.

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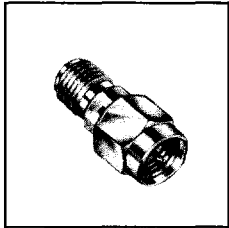
North America: Tel. (800) 366-2266  
Fax (800) 618-8883

Asia/Pacific: Tel. +85 2 2111 8088  
Fax +85 2 2111 8087

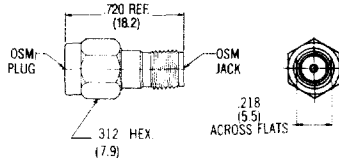
Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

# OSM (SMA)

## In-Series Adapters

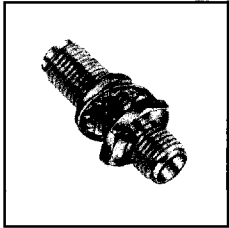


**Plug to Jack Adapter  
Connector Saver**

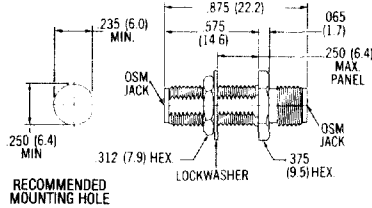


DC-18.0 GHz	
Max. VSWR 1.05 + .005fGHz	
<b>Part Number</b>	<b>2082-5133-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

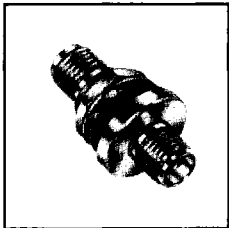


**Jack to Jack Adapter Bulkhead Feedthrough**

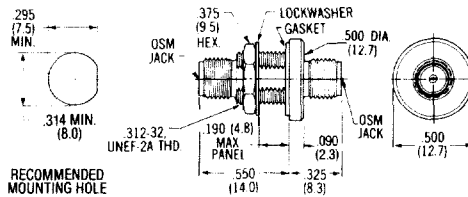


DC-18.0 GHz*	
Max. VSWR 1.05 + .005fGHz	
<b>Part Number</b>	<b>2084-0000-02</b>
Mechanically Captured Contact	
<b>Part Number</b>	<b>2084-1900-02</b>

Finish: Passivated stainless steel. For gold plate, change the Part Number suffix from -02 to -00.  
\*Contact captivation per U.S. patent number 3,292,117.

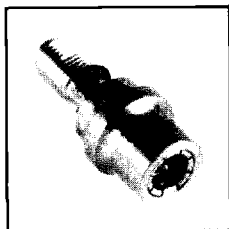


**Jack to Jack Adapter Bulkhead Feedthrough  
Hermetic Seal**

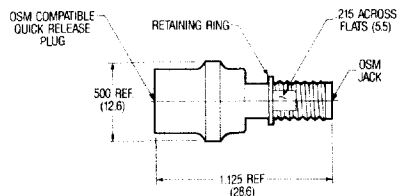


DC-18.0 GHz	
Max. VSWR 1.10 + .010fGHz	
<b>Part Number</b>	<b>2084-1100-00</b>

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02.



**Plug to Jack Quick Release Test Adapter**



DC-18.0 GHz	
Max. VSWR 1.07 + .007 x fGHz	
<b>Part Number</b>	<b>2082-2249-02</b>

Finish: Passivated stainless steel.

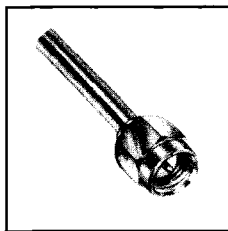


# OSM (SMA)

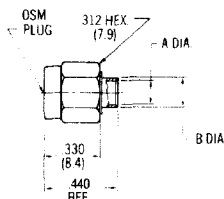
For Semi-Rigid Cable • 27.0 GHz

The extended frequency OSM allows coaxial system operation completely through 27.0 GHz. This extended frequency range design is higher order mode free. This series mates with the standard OSM (SMA) series and maintains the same mechanical features; that is, stainless steel housing and coupling nut, solid PTFE Fluorocarbon dielectric, and gold plated beryllium copper center contact.

## .085 and .141 Dia. • Direct Solder Attachment

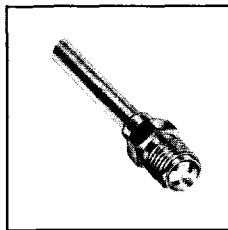


**Straight Cable Plug**

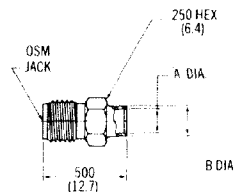


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2701-7941-00</b>	<b>2701-7985-00</b>
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Gold plate. For passivated stainless steel coupling nut, change the Part Number suffix from -00 to -02. Inner housing that is soldered to cable is gold plated.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

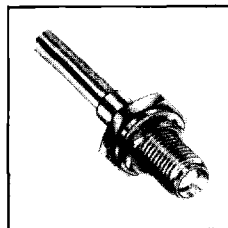


**Straight Cable Jack**

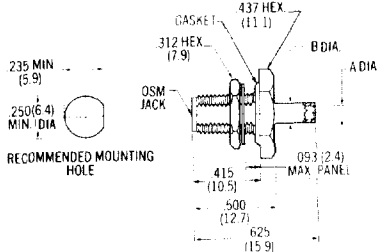


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2702-7941-00</b>	<b>2702-7985-00</b>
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.



**Bulkhead Feedthrough Cable Jack**



Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	<b>2704-7941-00</b>	<b>2704-7985-00</b>
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Gold plate.  
Refer to Appendix for Coaxial Cable Characteristics.  
Refer to recommended assembly tools in Tool Section.

M/A-COM, Inc.

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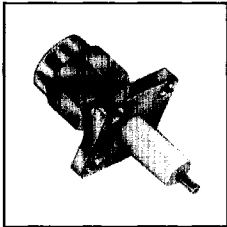
North America: Tel. (800) 366-2266  
Fax (800) 618-8883

Asia/Pacific: Tel. +85 2 2111 8088  
Fax +85 2 2111 8087

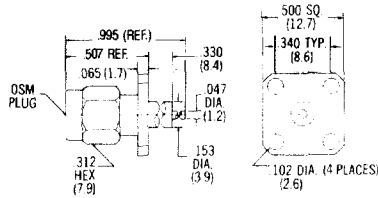
Europe: Tel. +44 (1344) 869 595  
Fax +44 (1344) 300 020

# OSM (SMA)

For Panel Mount • 27.0 GHz

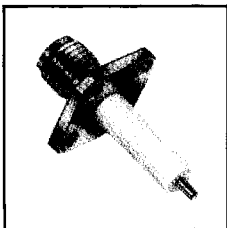


**Flange Mount Plug Receptacle**

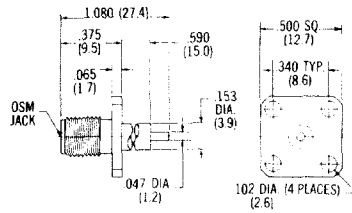


Captured Center Contact* Straight Terminal	
Part Number	2751-1201-00

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02.  
\*Contact captivation per U.S. patent number 3,292,117.



**Flange Mount Jack Receptacle**



Captured Center Contact* Straight Terminal	
Part Number	2752-1201-00

Finish: Gold plate. For passivated stainless steel, change the Part Number suffix from -00 to -02.  
\*Contact captivation per U.S. patent number 3,292,117.