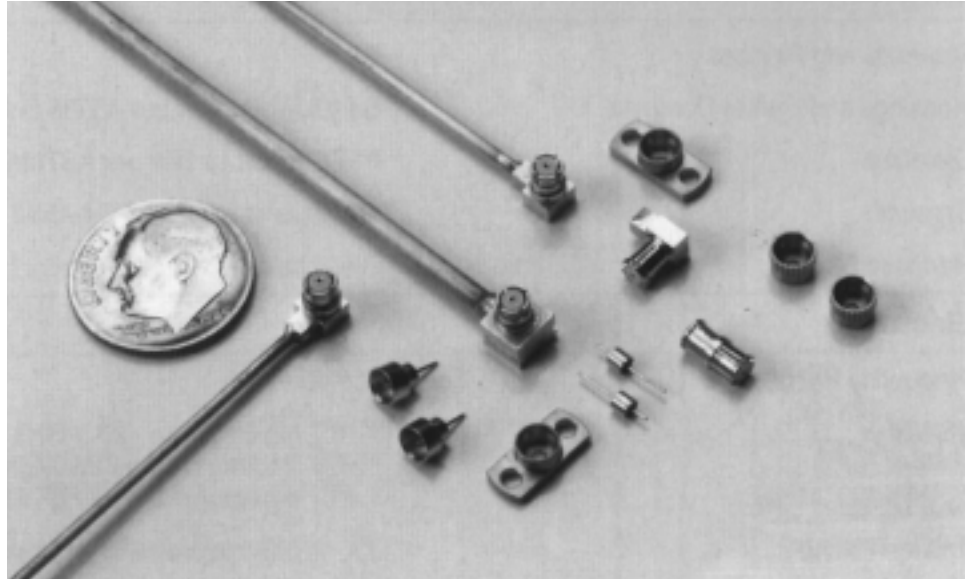


Introduction

Features

- Intermateable with Gilbert GPO™ Series
- Enhanced performance features
- Simplified Assembly



OSMP microminiature push-on coaxial connectors provide solutions for today's modular designs with denser packaging requirements. The extremely small size of the OSMP offers a versatile solution for high density packaging allowing connector center-to-center spacing of 4.32 [0.17]. The push-on interface facilitates easier assembly and test with a positive snap-in feature to indicate a fully mated connection. The rugged OSMP interface can better withstand harsh environments of mechanical shock and vibration, typically found in military or aerospace related applications. This OSMP connector interface is the standard used by Defense Electronics Supply Center (DSCC) to generate the SMP push-on connector series.

OSMP connectors can be your design solution for mechanical packaging and frequency response. The OSMP interface provides 0.020" of radial misalignment for critical blindmate applications. Mating forces are strictly controlled for reliable connections per mated pair or when simultaneously mating multiple connectors. Cable jacks include an anti-rocking ring for reliable mechanical performance for harsh operating environments. OSMP connectors offer enhanced broadband VSWR performance of

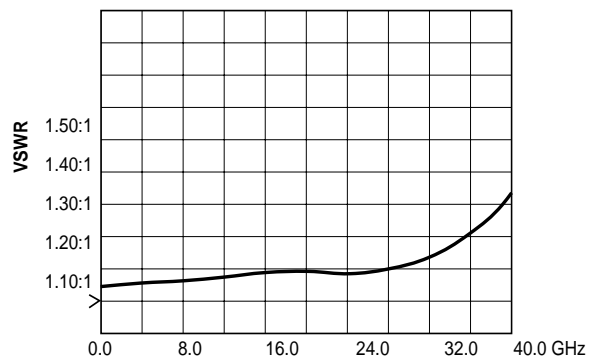
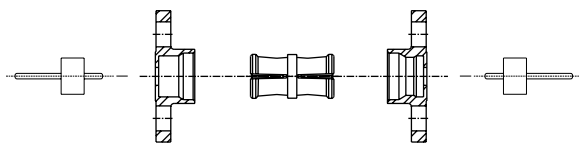
1.15:1 max thru 26GHz and 1.40:1 max thru 40GHz.

Standard design OSMP configurations include cable connectors, straight and right-angle, for 0.047 and 0.085 semi-rigid cable, full detent, limited detent and smooth bore mating shrouds that can be bulk-head or flange mounted and glass feedthroughs for coax to circuit launchers. In-series adapters for module-to-module intermating and between series adapters for integrating or testing systems or components parameters.

Between Series Adapters

For OSMP Between Series Adapters, see Page 438.

OSMP Shroud and Jack-to-Jack Adapter Assembly



Typical VSWR for OSMP Jack-to-Jack Adapter
Part Numbers 1059829-1 and 1056721-1

Introduction (Continued)

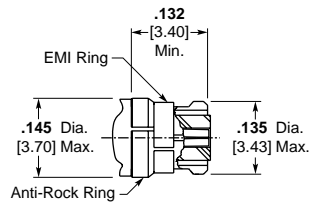
Specifications

General	
Materials and Finishes	
Housings and Center Contacts	Beryllium Copper per ASTM-B-196; gold plate over nickel plate
Dielectric	PTFE Fluorocarbon per ASTM-D-1457
Shrouds	Stainless steel per ASTM-A582 Type 303; passivate per ASTM-A380
Hermetic Seal	Glass bead
Electrical	
Frequency Range	dc - 40.0 GHz
VSWR	1.10:1 Maximum dc - 23.0 GHz
	1.15:1 Maximum 23.0 - 26.0 GHz
	1.40:1 Maximum 26.0 - 40.0 GHz
Voltage Rating	335 Vrms maximum at sea level
Insertion Loss	0.10 \sqrt{f} (GHz) maximum
Insulation Resistance	5000 megohms minimum
Dielectric Withstanding Voltage	500 volts (VRMS minimum)
RF High Potential	325 volts (VRMS minimum) @ 5 MHz
Impedance	50 ohms nominal
RF Leakage	-80dB to 3 GHz, -65dB from 3 to 26.5 dB minimum
Contact Resistance	Initial center contact 6.0 milliohms maximum
	Outer contact 2.0 milliohms maximum
Mechanical	
Durability	100 mating cycles minimum
Radial Misalignment	± 0.020 minimum
Axial Misalignment	.000/.010
Force to Engage	full detent 15.0 lbs. maximum
	half detent 10.0 lbs. maximum
	smooth bore 2.0 lbs. maximum
Force to Disengage	full detent 5.0 lbs. minimum
	half detent 2.0 lbs. minimum
	smooth bore 0.5 lbs. minimum
Center Contact Retention	1.5 lbs. minimum axial force
Environmental	
Operating Temperature	-65°C to +165°C
Vibration	per mil-std-202, method 204, test condition D
Shock	per mil-std-202, method 213, test condition I
Thermal Shock	per mil-std-202, method 107, test condition B
Moisture Resistance	per MIL-STD-202 method 106, except step 7b shall be omitted. Resistance shall be 200 megohms within 5 minutes after removal from humidity.

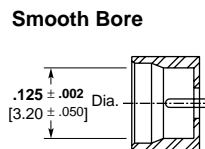
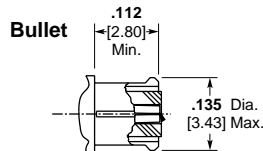
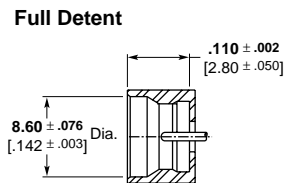
5 RF Connectors

Interface Dimensions

Jack



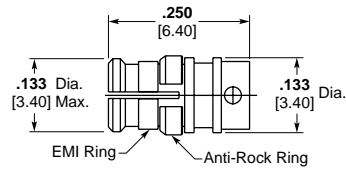
Shroud



Note: The U.S. Government (DSCC) has determined that the above specified interface dimensions are interchangeable and intermateable with Gilbert GPO Series RF Connectors.

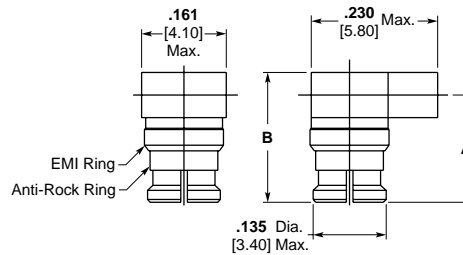
Jacks

Straight Cable Jack, Solder Attachment



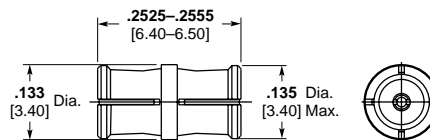
Cable	M/A-COM Part No. (Ref. only)	Part No.
.047 Semi-Rigid	2902-7947-62	1056526-1
.085 Semi-Rigid (RG-405)	2902-7985-62	1056527-1

Right Angle Cable Jack, Solder Attachment



Cable	Dim. A	Dim. B	M/A-COM Part No. (Ref. only)	Part No.
.047 Semi-Rigid	4.8 .190	5.8 .230	2908-7947-62	1056553-1
.085 Semi-Rigid (RG-405)	5.3 .209	6.7 .265	2908-7985-62	1056554-1

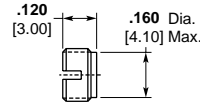
Jack to Jack Adapter (Bullet)



M/A-COM Part No. (Ref. only)	Part No.
2980-0000-62	1059829-1

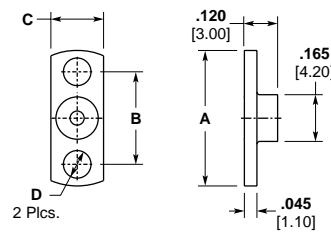
Shrouds

Shroud — Threaded



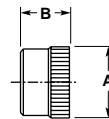
Description	M/A-COM Part No. (Ref. only)	Part No.
Full Detent	2998-5045-02	1056745-1
Limited Detent	2998-5043-02	1056743-1
Smooth Bore	2998-5044-02	1056744-1

Shroud — 2 Hole Flange Surface Mount



Description	Dim. A	Dim. B	Dim. C	Dim. D	M/A-COM Part No. (Ref. only)	Part No.
Full Detent	12.2 .480	8.3 .328	4.7 .187	2.5 .098	2998-5001-02	1056721-1
	15.8 .625	12.2 .481	5.7 .223	2.6 .102	2998-5002-02	1056722-1
	10.2 .400	7.2 .282	4.2 .165	1.9 .073	2998-5003-02	1056724-1
Limited Detent	12.2 .480	8.3 .328	4.7 .187	2.5 .098	2998-5028-02	1056729-1
	10.2 .400	7.2 .282	4.2 .165	1.9 .073	2998-5030-02	1056731-1
Smooth Bore	10.2 .400	7.2 .282	4.2 .165	1.9 .073	2998-5049-02	1056749-1

Shroud — Press Fit

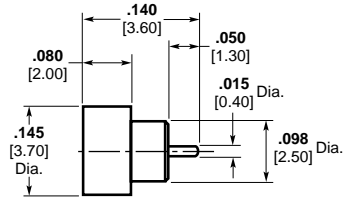


Description	Dim. A	Dim. B	M/A-COM Part No. (Ref. only)	Part No.
Full Detent	4.6 .182	2.9 .115	2998-5005-02	1056726-1
Limited Detent	4.4 .174	3.0 .120	2998-5033-02	1056734-1
	3.9 .154	2.0 .080	2998-5035-02	1056736-1

5 RF Connectors

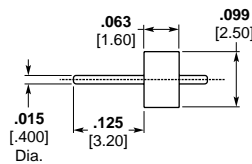
Shrouds (Continued)

Shroud — Solder-In Hermetic



Description	M/A-COM Part No. (Ref. only)	Part No.
Full Detent	2998-5054-94	1056750-1
Limited Detent	2998-5055-94	1056751-1
Smooth Bore	2998-5056-94	1056752-1

Glass Bead Assembly

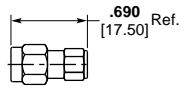


M/A-COM Part No. (Ref. only)	Part No.
2998-5022-94	1056728-1

Between Series Adapters

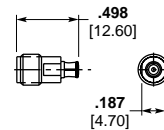
Between Series Coaxial Transmission Line Adapters provide convenient transitions between popular series coaxial connectors. The adapter design provides a minimum length consistent with good electrical performance. The small size, low VSWR, and broad frequency coverage permits a wide range of applications in both measurement and systems use.

SMA Plug – OSMP Plug



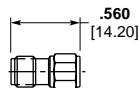
Part Number 1056706-1
M/A-COM Part No. (Ref. only)
2981-2241-00

SMA Jack – OSMP Jack



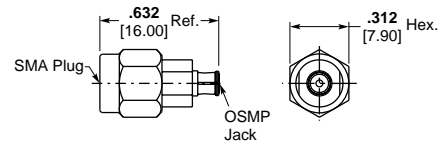
Part Number 1056702-1
M/A-COM Part No. (Ref. only)
2980-2240-00

SMA Jack – OSMP Plug



Part Number 1056707-1
M/A-COM Part No. (Ref. only)
2982-2240-00

OSMP Jack – SMA Plug



Part Number 1056708-1
M/A-COM Part No. (Ref. only)
2982-2241-00