# SMP

# CONTENT

INTRODUCTION to PUSH-ON CONNECTORS & ADAPTERS Page 9

**7/16** Push-on Page 15

BMA Page 27

N PUSH-ON Page 45

SBX Page 61

SBY Page 85

SMA Push-on Page 107

SMA Reverse Sex

**SMP** 

TNC PUSH-ON Page 193

CABLE ASSEMBLIES

with INTERCHANGEABLE

CONNECTORS
Page 213

Kits with

I./CONNECTORS Page 221

w/PUSH-ONs Page 225

RAW CABLE SPECIFICATIONS Page 245

RF MULTI PIN Page 265

> TOOLS Page 271

ASSEMBLY INSTRUCTIONS Page 289

SPECIAL PRODUCTS & SERVICES Page 353

**APPENDIX** 

	1.	SMP Specifications/Interface Dimensions	132
I	2.	Connectors of Type SMP	141
	3.	Adapters to SMP	169

# Push-On Connectors & Adapters of Type SMP Spectrum



**THE SMP** (Sub-Miniature-Push-On) is a 2.4 mm connector, using solid dielectric interface. The connector is extremely small and therefore allows high density packaging. It was originally designed to permit the female connector to incline freely in direction while the mechanical and electrical connection remains maintained. The male connector is available in smooth bore for easy connection and disconnection, with limited detent, characterized by a certain insertion and withdrawal force, and with full detent, needing high insertion force and a substantial withdrawal force, usually requiring a tool for disconnection. The full detended SMP connection is suitable for mobile applications, extreme shock and vibration requirements. SMP connectors are offered for applications to 18.0 GHz and 26.5 GHz, precision designs are even operating to 40.0 GHz. Spectrum's SMP connectors are meeting interface dimensions to DESC specifications 94007 and 94008. Spectrum Elektrotechnik GmbH has developed SMP test connectors as well, and designed and manufactures SMP calibration kits. Spectrums SMP test connectors and calibration components are supplied with an additional thread that can be employed to ensure perfect and repeatable mating during calibration.

SMP (Sub-Miniature-Push-On) connectors are specifically used for packaging and interconnecting low power microwave modules, drawers and racks in state-of-the-art systems that do not allow longer system down time, and are built on a modular basis. SMP push-on connectors allow replacement of faulty microwave modules within seconds. A typical method of interlocking modules is using lock screws.

SMP (Sub-Miniature-Push-On) connectors are also available as cable connectors for several smaller standard semi-rigid cables of diameters 0.047" and 0.085", low density semirigid cables, standard flexible cables and low density flexible cables. The availability of SMP connectors allows easy interconnection of microwave power components. Standard units are available as straight or mitred right angled connectors, in bulkhead or panel mount or flanged designs for solder or compression clamp attachment.

SMP (Sub-Miniature-Push-On) connectors can be obtained hermetically sealed for pressing or threading into the component housing,

SMP (Sub-Miniature-Push-On) connectors are available as circuit board connectors, in a variety of straight, mitred right angle and flange mount designs.

Some test equipment may not be supplied with SMP test port connectors. Therefore an adequate number of between series instrument grade adapters to other important connector series are available, such as 2.9mm, 7mm and SMA.

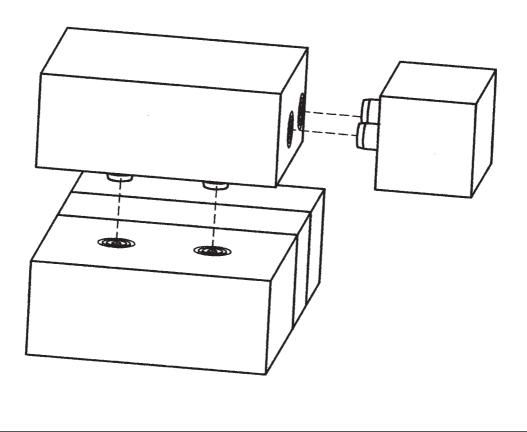
Spectrum Elektrotechnik GmbH is a very innovative company, offering special services in engineering in order to meet the customer's needs to perfection.



# **Applications & Features, Type SMP**

When using blind mate connectors in an application, careful consideration has to be given to choosing the right connector series, the appropriate connector model within that series, and the correct mounting features. Spectrum Elektrotechnik Gmbh does offer besides the **SMP** series, also **BMA** and **SBX**, **SBY** blind mate connectors, and all those series are shown in this Handbook. This makes it easy for the customer to identify the best connector or connectors for his system. A system also may use several or all of the blind mate connectors offered. Important parameters for identifying the proper connector and its series are:

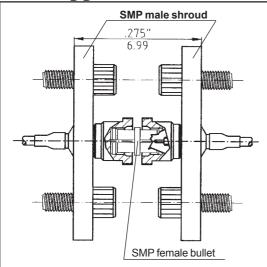
- \* Power requirement
- \* Operating frequency
- \* RIGID OR FLOAT MOUNT CONNECTORS
- \* Connector-to-connector fixed tolerances
- \* Connector-to-connector float tolerances
- \* MATING FORCES
- \* FLOAT MOUNT SPRING LOADING
- \* CONNECTOR PACKAGING DENSITY IN MULTIPLE CONNECTOR ARRAYS
- \* PANEL DEFLECTION



quickc98/smp1.pm6

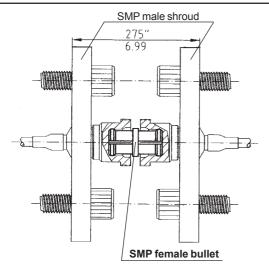
# **SMP Applications & Features**





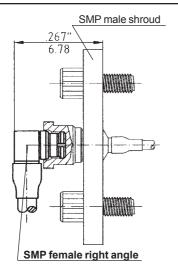
### SHROUDS:

The male flange mount SMP connector is called the "shroud". It is mounted to modules and connects at the other end to cable or stripline, etc. Inserting the "bullet" between two shrouds provides a typical module to module separation of 0.275 inches (7.0 mm). The "shrouds" are made of passivated stainless steel and surround a center conductor of 0.015 inches (0.38 mm). Shrouds are available full detent, limited detent, or with smooth bore. For specifications, or further details please refer to the SMP specifications at the beginning of this section.



### BULLETS:

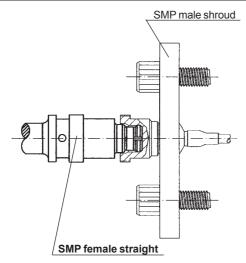
The SMP female/female adapter is called the "bullet". It mates with the SMP male connector. Inserting the "bullet" between two male flange mount connectors, the "shrouds", provides a typical module to module separation of 0.275 inches (7.0 mm). Shorter or longer versions of "bullets" are available, or can be designed upon customer request. The outer and center conductors of the "bullets" are made from beryllium copper, heat treated and gold plated. For specifications, or further details please refer to the SMP specifications at the beginning of this section.



### RIGHT ANGLE CONNECTORS:

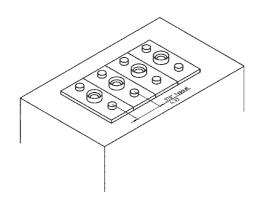
SMP female right angle connectors are availabe for semi rigid cable and for flexible cable as well. They are usually connecting to modules, e.g. mating with the SMP flange mount male connector, the shroud. The right angle connectors are needed for limited space requirements. Very short right angle connectors with lowest profile were developed for even tighter space requirements. For the mating shroud it has to be decided carefully, whether full detent, limited detent or smooth bore should be used. This depends mainly on the application. A test cable being connected/disconnected many times will prefer smooth bore, while the use in mobile equipment may require full detent.

::/quickc98/smp1.pm6



### **STRAIGHT CONNECTORS:**

SMP female straight connectors are available for semi rigid cable and for flexible cable as well. They are usually connecting to modules, e.g. mating with the SMP flange mount male connector, the shroud. A variety of mating shrouds are available. It has to be decided carefully, whether a shroud with full detent, limited detent or smooth bore should be used. It depends mainly on the application. A test cable being connected/disconnected many times will prefer smooth bore, while the use in mobile equipment may require full detent.

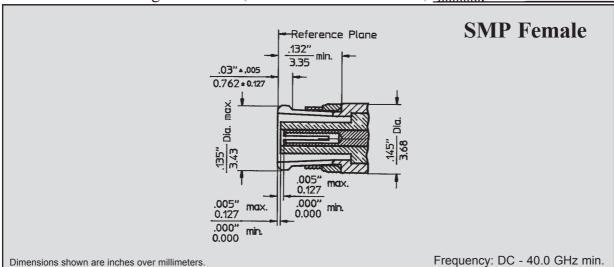


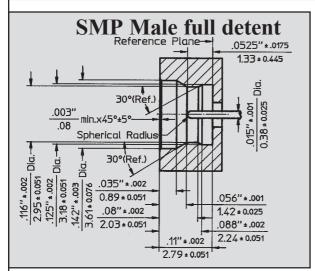
### DENSE PACKAGING:

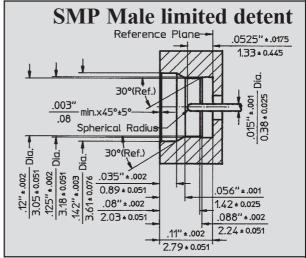
The SMP miniature high performance interconnect system reduces space requirements. It allows for dense packaging with connector spacing as close as 0.170 inches (4.3mm). For applications that require hermetic sealing, the flange end mounts over 0.015 inches (0.38mm) glass seal pin.

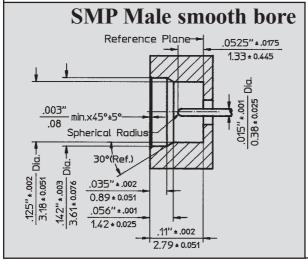
# SMP Interface Mating Dimensions (Per DESC 94007 and DESC 94008)

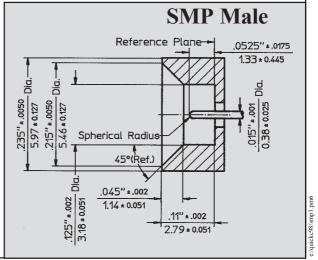












# **Specifications SMP**

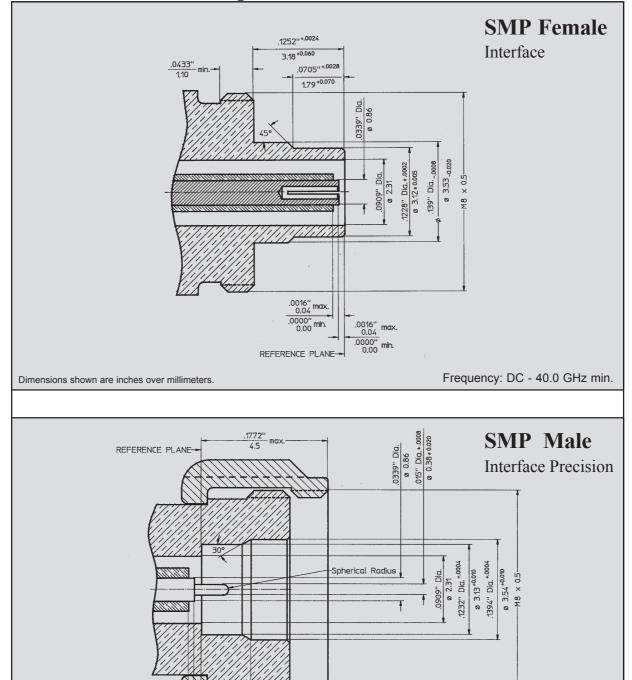
The specifications below are general specifications for all SMP connectors. Specific Data for VSWR, Insertion loss, R.F. leakage etc., are available from the factory upon request. Specifications in the following table are recommended for any procurement documents or drawings. In the event of any conflict between these specifications and General Specifications DESC 94007 and DESC 94008, these specifications shall govern. These specifications are subject to change according to the latest revision.

REQUIRE	MENT	GENERAL SPECIFICATIONS
GENERAI	1	
Standard M	laterials	STEEL corrosion resistant 1.4305 per DIN 17440 (QQ-S-764, class 303 or ASTM-A-582-80). ALUMINUM AlMg4.5Mn per DIN 1725, AlMgSi0.5 per DIN 1725, AlMgSi1 per DIN 1725 (6061-T6 per QQ-A-225/8). BRASS CuZn39Pb3 per DIN 17660 (QQ-B-626, half hard). COPPER BERYLLIUM 33-25 CuBe2Pb H per DIN 17666 (QQ-C-530). TFE Fluorocarbon per DIN 52900 (MIL-P-19468 and L-P403). SILICONE RUBBER per DIN 3771 (MIL-R-5847 and ZZ-R-765, Class II B,) Grade 50 - 75. BORRIUM NITRITE Dielectric for high power applications per inhouse specification.
Finish for	COPPER BERYLLIUM	Center Contacts shall be gold plated to a minimum thickness of .00005 inch (1.27 $\mu$ m) in accordance with MIL-G-45204, Type II, Grade C. Outer conductors shall be gold plated to a thickness of .00003 inch (0.8 $\mu$ m) per MIL-G-45204, Type II, Grade C, or silver plated to a thickness of .0001 inch (2.5 $\mu$ m) per QQ-S-365.
	STAINLESS STEEL	Shall be passivated per QQ-P-35 or gold plated to a thickness of .00003 inch (0.8 µm) per MIL-G-45204, Type II, Grade C.
	ALUMINUM	Conductive Parts shall have an iridited finish per MIL-C-5541.
	BRASS	Other parts, such as Coupling Nuts and Back-Bodies shall be anodized per MIL-A-8625. Gold plated to a thickness of .00003 inch (0.8 μm) min. per MIL-45204, Type II, Grade C, or nicle plated to a thickness of .0002 inch (5μm) per QQ-N-290, grade E, or silver plated to a thickness of .0001 inch (2.5 μm) per QQ-S-365.
	VARIOUS	Imoloy .0001 inch (2.5 µm) min. plating, consisting of 55% Copper / 20% Zinc / 25% Tin (on special request).
Design		The design shall be such that the outline dimensions in this catalog are met. In addition, the assembled connector shall meet the interface dimensions.
ELECTRI		
Frequency I	- C	DC - 40.0 GHz min.
Insulation R		The insulation resistance shall not be less than 5.000 megaohms.
U	nding Wave Ratio (VSWR)	1.5 : 1 max. to 40.0 GHz.
Contact Res	istance	The center contact resistance drop is 6.0 milliohms max.
Dielectric V	Vithstanding Voltage	The magnitude of the test voltage shall be 500 volts rms at sea level.
RF High Po Withstandin	tential g Voltage	The RF high potential withstanding voltage is 325 volts rms at 5 MHz. Leakage is not applicable.
RF Leakage	•	RF Leakage is not applicable.
Insertion Lo	SS	(.10  SQT(f(GHz)))  dB
MECHAN	ICAL	
Connector	Durability	The connector is to be tested and its mating connector shall be subjected to 100 insertions min Withdrawal cycles /minute are not applicable. The connector shall show no evidence of mechanical failure and the connector shall meet the mating characteristic requirements.
Cable Reter	tion Force	20 pounds (88.9 N) min.
Coupling N	ut Retention Force	Not applicable.
Force to Eng Longitudina	gage and Disengage al Force max.	The torque required to engage shall not exceed 15 lbs. (66.7 N). The disengage torque shall not exceed 2 lbs. (8.9 N) min. (full detent).
Mating Cha	racteristics	Not applicable.
Recommen	ded Mating Torque	Recommended Mating Torque is not applicable.
ENVIRON	MENTAL	
Corrosion (	Salt Spray)	Specification MIL-STD-202, Method 101, Test Condition B. The salt solution shall be 5%.
Vibration		Specification MIL-STD-202, Method 204, Test Condition D.
Shock		Specification MIL-STD-202, Method 213, Test Condition I.
Thermal Sh	ock	Specification MIL-STD-202, Method 107, Test Condition B, rating -65 °C to +165 °C.
Moisture Re	esistance	Specification MIL-STD-202, Method 106. Step 7b (vibration) shall be omitted. Insulation resistance shall be 200 megohms min. within 5 minutes of removal from humidity.
Corona Lev	el	The connector shall not exhibit breakdown (corona) when the applied voltage is 190 volts rms and the altitude is 70,000 feet.

**SMP Test Connector Specification** 



Frequency: DC - 40.0 GHz min.



138 Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)

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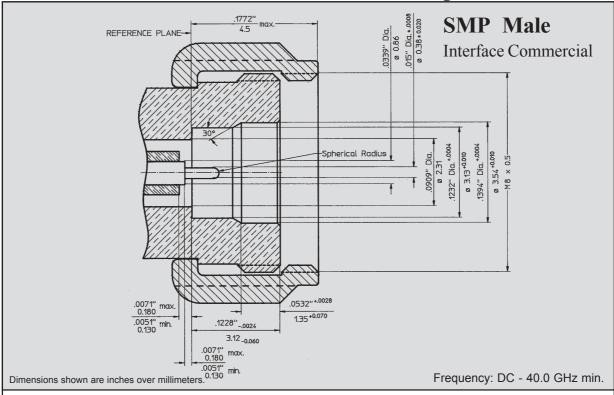
.1228" <sub>-.0024</sub> 3.12 <sub>-0.060</sub>

Dimensions shown are

inches over millimeters.







Spectrum Elektrotechnik GmbH has developed an SMP Calibration System that allows testing SMP connectors with guaranteed repeatability. To ensure proper mating, the SMP Test Connectors employ additional threading, ensuring perfect and repeatable mating, avoiding uncertainties that cannot be prevented with pure snap on connectors. The connectors will mate properly with standard SMP connectors.

To the left and above Spectrum Elektrotechnik GmbH has documented the interface mating dimensions of the test connectors. The commercial test connector, as specified above, was mainly needed during the time when the DESC Specification still allowed protruding center contacts and dielectrics.

# **SMP Test Connector Specifications**



The specifications below are general specifications for all SMP Test Connectors. Specific Data for VSWR, Insertion loss, R.F. leakage etc., are available from the factory upon request. Specifications in the following table are recommended for any procurement documents or drawings. In the event of any conflict between these specifications and other documentation, these specifications shall govern. These specifications are subject to change according to the latest revision.

REQUIREMENT	GENERAL SPECIFICATIONS
GENERAL	
Standard Materials	STEEL corrosion resistant 1.4305 per DIN 17440 (QQ-S-764, class 303 or ASTM-A-582-80). ALUMINUM AlMg4.5Mn per DIN 1725, AlMgSi0.5 per DIN 1725, AlMgSi1 per DIN 1725 (6061-T6 per QQ-A-225/8). BRASS CuZn39Pb3 per DIN 17660 (QQ-B-626, half hard). COPPER BERYLLIUM 33-25 CuBe2Pb H per DIN 17666 (QQ-C-530). TFE Fluorocarbon per DIN 52900 (MIL-P-19468 and L-P403). SILICONE RUBBER per DIN 3771 (MIL-R-5847 and ZZ-R-765, Class II B,) Grade 50 - 75. BORRIUM NITRITE Dielectric for high power applications per inhouse specification.
Finish for COPPER BERYLLIUM	Center Contacts shall be gold plated to a minimum thickness of .00005 inch (1.27 $\mu$ m) in accordance with MIL-G-45204, Type II, Grade C. Outer conductors shall be gold plated to a thickness of .00003 inch (0.8 $\mu$ m) per MIL-G-45204 , Type II, Grade C, or silver plated to a thickness of .0001 inch (2.5 $\mu$ m) per QQ-S-365.
STAINLESS STEEL	Shall be passivated per QQ-P-35 or gold plated to a thickness of .00003 inch (0.8 μm) per
ALUMINUM	MIL-G-45204, Type II, Grade C. Conductive Parts shall have an iridited finish per MIL-C-5541. Other parts, such as Coupling Nuts and Back-Bodies shall be anodized per MIL-A-8625.
BRASS VARIOUS	Gold plated to a thickness of .00003 inch (0.8 µm) min. per MIL-45204, Type II, Grade C, or nicle plated to a thickness of .0002 inch (5µm) per QQ-N-290, grade E, or silver plated to a thickness of .0001 inch (2.5 µm) per QQ-S-365.  Imoloy .0001 inch (2.5 µm) min. plating, consisting of 55% Copper / 20% Zinc / 25% Tin
	(on special request).
Design	The design shall be such that the outline dimensions in this catalog are met. In addition, the assembled connector shall meet the interface dimensions.
ELECTRICAL	
Frequency Range	DC - 18.0 GHz min. & DC - 40.0 GHz min.
Insulation Resistance	The insulation resistance shall not be less than 5.000 megaohms.
Voltage Standing Wave Ratio (VSWR)	$1.02 + .005 \times f(GHz)$
Contact Resistance	The center contact resistance drop is 6.0 milliohms max.
Dielectric Withstanding Voltage	The magnitude of the test voltage shall be 500 volts rms at sea level.
RF High Potential Withstanding Voltage	The RF high potential withstanding voltage is 325 volts rms at 5 MHz. Leakage is not applicable.
RF Leakage	RF Leakage is not applicable.
Insertion Loss	(.05 SQT(f(GHz))) dB
MECHANICAL	
Connector Durability	The connector is to be tested and its mating connector shall be subjected to 100 insertions min Withdrawal cycles/minute are not applicable. The connector shall show no evidence of mechanical failure and the connector shall meet the mating characteristic requirements.
Cable Retention Force	20 pounds (88.9 N) min.
Coupling Nut Retention Force	Not applicable.
Force to Engage and Disengage Longitudinal Force max.	The torque required to engage shall not exceed 15 lbs. (66.7 N). The disengage torque shall not exceed 2 lbs. (8.9 N) min. (full detent).
Mating Characteristics	Not applicable.
Recommended Mating Torque	6.2 inch-pounds (0.7 Nm)
ENVIRONMENTAL	
Corrosion (Salt Spray)	Specification MIL-STD-202, Method 101, Test Condition B. The salt solution shall be 5%.
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, rating -65 °C to +165 °C.
Moisture Resistance	Specification MIL-STD-202, Method 106. Step 7b (vibration) shall be omitted. Insulation resistance shall be 200 megohms min. within 5 minutes of removal from humidity.
Corona Level	The connector shall not exhibit breakdown (corona) when the applied voltage is 190 volts rms and the altitude is 70,000 feet.

140

# SMP

1.	SMP Specifications/Interface Dimensions	132
	<b>Semi-Rigid Cable Connectors</b>	142
	<b>Semi-Rigid Cable Test Connectors</b>	Connectors 151 tors 153 onnectors 158
•	Flexible Cable Connectors	153
2.	<b>Hermetically Sealed Connectors</b>	158
	Circuit Board Connectors	160
	Shrouds	165
3.	Adapters to Type SMP	169

### CONTENT

INTRODUCTION to PUSH-ON CONNECTORS & ADAPTERS Page 9

**7/16** Push-on Page 15

BMA Page 27

N PUSH-ON Page 45

SBX Page 61

SBY Page 85

SMA PUSH-ON Page 107

SMA Reverse Sex PUSH-ON Page 119

SMP

TNC PUSH-ON Page 193

CABLE ASSEMBLIES

with
INTERCHANGEABLE
CONNECTORS
Page 213

Kits with I./CONNECTORS Page 221

w/PUSH-ONs Page 225

RAW CABLE SPECIFICATIONS Page 245

RF MULTI PIN Page 265

> TOOLS Page 271

ASSEMBLY INSTRUCTIONS Page 289

SPECIAL PRODUCTS & SERVICES Page 353

APPENDIX

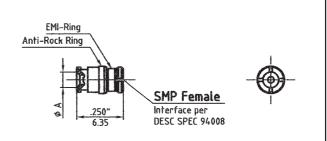
# **SMP Semi-Rigid Cable Connectors**



# DC - 18.0 GHz

SMP temale straight for Semi-Rigid Cable				
Connector Part No.	S/R Cable	Cable Part No.		Conn. Code
1102-2101-04	.047"	421-047 421-047-1 421-047-3	.049" 1.24	
1102-2102-04	.047" LL	421-047L 421-047L-1 421-047L-3	.049" 1.24	SPF
1103-2102-04	.085"	421-086 421-086-1 421-086-3	.088" 2.24	01.1
1103-2103-04	.085" LL	421-307 421-307-1	.088"	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.

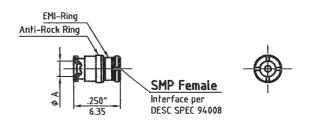


## DC - 26.5 GHz

### SMP female straight for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.		Conn. Code
1103-2106-04	.085"	421-086 421-086-1 421-086-3	.088" 2.24	SPE
1103-2107-04	.085" LL	421-307 421-307-1 421-307-3	.088" 2.24	SPE

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.

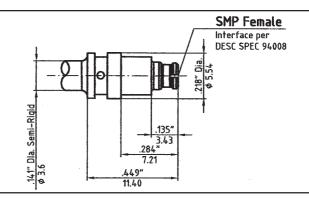


### DC - 18.0 GHz

### SMP connector assembly female for S/R Cable

Connector Part No.	S/R Cable	Cable Part No.	min.	Code
1103-2108-04	.141"	421-669	.049" 1.24	SPF

Connector outer conductor and center contact are beryllium copper gold plated.

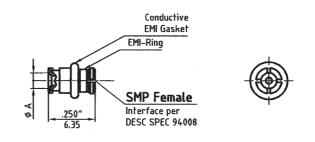


### DC - 40.0 GHz

### SMP female straight for Semi-Rigid Cable

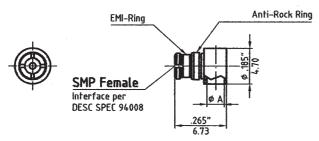
Connector Part No.	S/R Cable	Cable Part No.	Ø A min.	Conn. Code
1102-2103-04	.047"	421-047 421-047-1 421-047-3	.049" 1.24	
1102-2104-04	.047" LL	421-047L 421-047L-1 421-047L-3	.049" 1.24	SPG
1103-2104-04	.085"	421-086 421-086-1 421-086-3	.088" 2.24	36.0
1103-2105-04	.085" LL	421-307 421-307-1 421-307-3	.088" 2.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.





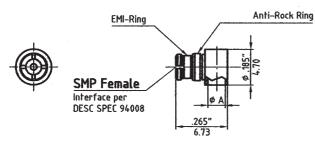
# Semi-Rigid Cable Connectors, Type SMP



DC - 12.0 GHz SMP female right angle for Semi-Rigid Cable

			_	
Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1102-3401-04	0.47"	421-047 421-047-1	.049"	
1102-3401-04	.047	421-047-1	1.24	
1102-3402-04	047"	421-047L	.049"	
1102-3402-04	.047 LL	421-047L-1 421-047L-3	1.24	SPQ
1103-3401-04	005"	421-086	.088"	SFQ
1103-3401-04	.005	421-086-1 421-086-3	2.24	
4402 2402 04	.085" LL	421-307	.088"	
1103-3402-04	.085 LL	421-307-1 421-307-3	2.24	

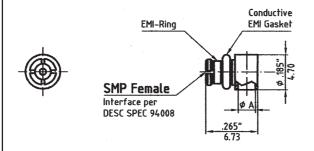
Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



DC - 18.0 GHz
SMP female right angle for Semi-Rigid Cable

			J .	
Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1103-3417-04	005"	421-086 421-086-1	.088"	
1103-3417-04	.005	421-086-3	2.24	SPQ
1103-3418-04	005"	421-307 421-307-1	.088"	SFQ
1103-3418-04	.005 LL	421-307-1 421-307-3	2.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



DC - 12.0 GHz SMP female right angle for Semi-Rigid Cable

•	•		•	
Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1102-3403-04	.047"	421-047 421-047-1	.049"	
1102-3403-04	.047	421-047-1	1.24	
1102-3404-04	047"	421-047L	.049"	
1102-3404-04	.047 LL	421-047L-1 421-047L-3	1.24	SPD
1103-3403-04	005"	421-086	.088"	SPD
1103-3403-04	.085	421-086-1 421-086-3	2.24	
4402 2404 04	.085" LL	421-307	.088"	
1103-3404-04	.005 LL	421-307-1 421-307-3	2.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.

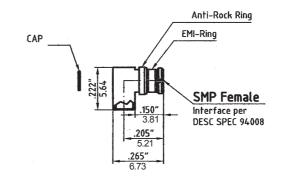
# **SMP Semi-Rigid Cable Connectors**



DC - 18.0 GHz SMP female right angle for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1103-3419-04	.085"	421-086 421-086-1 421-086-3	.088" 2.24	SPH

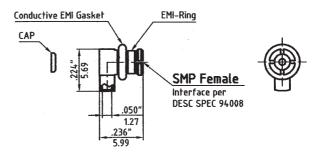
Connector outer conductor and center contact are beryllium copper gold plated.



DC - 18.0 GHz SMP female right angle for Semi-Rigid Cable

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Connector Part No.	S/R	Cable	ØΑ	Conn.	
	Cable	Part No.	min.	Code	
1102-3417-04	0.47"	421-047 421-047-1	.049"	SPH	
1102-3417-04	.047	421-047-1 421-047-3	1.24	SPH	

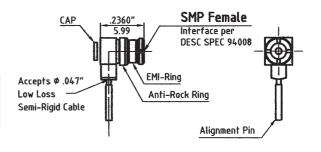
Connector outer conductor and center contact are beryllium copper gold plated.



### DC - 18.0 GHz SMP female right angle to .047" LL (1.19mm) for Semi-Rigid Cable

Connector Part No.	Cable	Cable Part No.	min.	Code
1102-3418-04	.047" LL	421-047L 421-047L-1 421-047L-3	.049" 1.24	SPJ

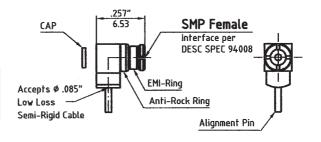
Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



### DC - 18.0 GHz SMP female right angle to .085" LL (2.16mm) for Semi-Rigid Cable

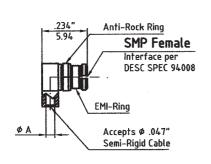
•				
Connector Part No.		Cable		
	Cable	Part No.	min.	Code
1103-3420-04	0051111	421-307	.088"	00.1
1103-3420-04	.085 LL	421-307-1 421-307-3	2 24	SPJ

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.





# Semi-Rigid Cable Connectors, Type SMP



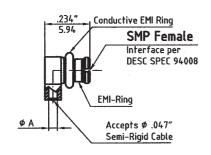


### DC - 18.0 GHz

### SMP female right angle connector for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector 1 art No.	Cable	Part No.	min.	Code
1102-3413-04	0.47"	421-047	.049"	
1102-3413-04	.047	421-047-1 421-047-3	1.24	SPQ
4400 2444 04	047011	421-047L	.049"	SFQ
1102-3414-04	.04/ LL	421-047L-1	1.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



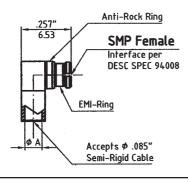


### DC - 18.0 GHz

### SMP female right angle connector for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.		Conn. Code
1102-3415-04	.047"	421-047 421-047-1 421-047-3	.049" 1.24	SPD
1102-3416-04	.047" LL	421-047L 421-047L-1 421-047L-3	.049" 1.24	SFD

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



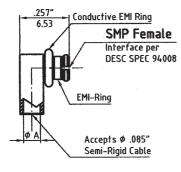


### DC - 18.0 GHz

### SMP female right angle connector for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Fart No.	Cable	Part No.	min.	Code
1103-3413-04	085"	421-086 421-086-1	.088"	
1103-3413-04	.005	421-086-3	2.24	SPQ
4402 2444 04	005"	421-307 421-307-1	.088"	3F Q
1103-3414-04	.005 LL	421-307-1 421-307-3	2.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.





### DC - 18.0 GHz

### SMP female right angle connector for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
	Cable	Part No.	min.	Code
1103-3415-04	.085"	421-086 421-086-1	.088"	
		421-086-3	2.24	SPD
1103-3416-04	.085" LL	421-307 421-307-1	.088"	OI D
		121 207 2	/ /4	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.

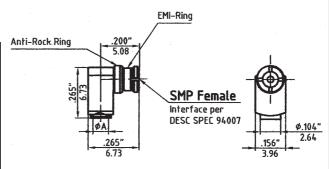
# **SMP Semi-Rigid Cable Connectors**



DC - 18.0 GHz SMP female right angle for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
	Cable	Part No.	min.	Code
1102-3405-04	0.47"	421-047 421-047-1	.049"	
1102-3405-04	.047	421-047-3	1.24	
1102-3406-04	047"	421-047L 421-047L-1	.049"	
1102-3400-04	.047 LL	421-047L-1 421-047L-3	1.24	SPA
1103-3405-04	005"	421-086	.088"	SFA
1103-3405-04	.005	421-086-1 421-086-3	2.24	
1103-3406-04	005"	421-307	.088"	
1103-3406-04	.005 LL	421-307-1 421-307-3	2.24	

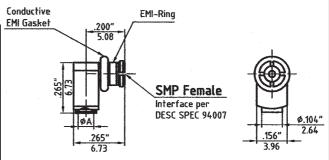
Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



DC - 18.0 GHz SMP female right angle for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.		Conn. Code
1102-3407-04	.047"	421-047 421-047-1 421-047-3	.049" 1.24	
1102-3408-04	.047" LL	421-047L 421-047L-1 421-047L-3	.049" 1.24	SPB
1103-3407-04	.085"	421-086 421-086-1 421-086-3	.088" 2.24	SFB
1103-3408-04	.085" LL	421-307 421-307-1 421-307-3	.088" 2.24	

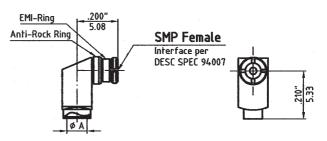
Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



DC - 26.5 GHz SMP female right angle for Semi-Rigid Cable

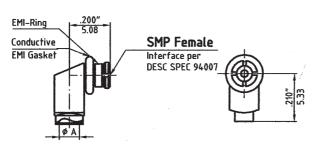
om tomatoright anglo for comi ragia cable				
Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1102-3409-04	0.4711	421-047	.049"	
1102-3409-04	.047	421-047-1 421-047-3	1.24	
1102-3410-04	0.4711.1	421-047L	.049"	
1102-3410-04	.047" LL	421-047L-1 421-047L-3	1.24	SPR
1103-3409-04	.085"	421-086 421-086-1	.088"	SPK
1103-3409-04	.000	421-086-3	2.24	
4402 2440 04	0051111	421-307	.088"	
1103-3410-04	.005 LL	421-307-1 421-307-3	2.24	

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.





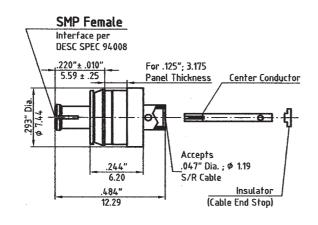
# Semi-Rigid Cable Connectors, Type SMP



DC - 26.5 GHz SMP female right angle for Semi-Rigid Cable

Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
1102-3411-04	0.47"	421-047 421-047-1	.049"	
1102-3411-04	.047	421-047-1	1.24	
4402 2442 04	047"	421-047L	.049"	
1102-3412-04	.047" LL	421-047L-1 421-047L-3	1.24	SPC
1103-3411-04	005"	421-086	.088"	SPC
1103-3411-04	.005	421-086-1 421-086-3	2.24	
4402 2442 04	005"   1	421-307	.088"	
1103-3412-04	.085 LL	421-307-1 421-307-3	2.24	

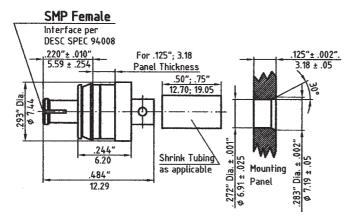
Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



DC - 18.0 GHz SMP female float mount for .047" (1.19mm) Semi-Rigid Cable

3				
Connector Part No.		Cable		
	Cable	Part No.	min.	Code
1102-6505-04	047"	421-047 421-047-1	.049"	SPN
	.047	421-047-3	1.24	OI 14

Connector outer conductor and center contact are beryllium copper gold plated. LL= Low density dielectric.



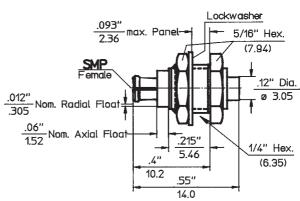
DC - 18.0 GHz SMP female Float Mount .125" (3.18mm) Panel for Semi-Rigid Cable

Connector	S/R	Cable	Conn.
Part No.	Cable	Part No.	Code
1102-6501-04	.047"	421-047 421-047-1 421-047-3	
1102-6502-04	.047" LL	421-047L 421-047L-1 421-047L-3	SPT
1103-6501-04	.085"	421-086 421-086-1 421-086-3	371
1103-6502-04	.085" LL	421-307 421-307-1 421-307-3	

Connector outer conductor is stainless steel gold plated. Center conductor is berryllium copper gold plated. LL= Low density dielectric.

# **SMP Semi-Rigid Cable Connectors**



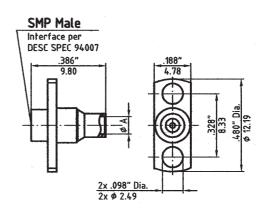


DC - 18.0 GHz SMP female bulkhead float mount for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.		_
1103-6503-02	.085"	421-086 421-086-1 421-086-3	.088" 2.24	SPU

Connector outer conductor and center contact are beryllium copper gold plated.

	2/2			~ .	_
Connector Part No.	S/R Cable	Cable Part No.	Inter- face	Ø A min.	Conn Code
11F2-6301-00	.047"	421-047 421-047-1 421-047-3	Full detent	.049" 1.24	SRF
11L2-6301-00	.047"	421-047 421-047-1 421-047-3	Limited detent	.049" 1.24	SRL
11S2-6301-00	.047"	421-047 421-047-1 421-047-3	Smooth bore	.049" 1.24	SRS
11F2-6302-00	.047" LL	421-047L 421-047L-1 421-047L-3	Full detent	.049" 1.24	SRF
11L2-6302-00	.047" LL	421-047L 421-047L-1 421-047L-3	Limited detent	.049" 1.24	SRL
11S2-6302-00	.047" LL	421-047L 421-047L-1 421-047L-3	Smooth bore	.049" 1.24	SRS
11F3-6301-00	.085"	421-086 421-086-1 421-086-3	Full detent	.088" 2.24	SRF
11L3-6301-00	.085"	421-086 421-086-1 421-086-3	Limited detent	.088" 2.24	SRL
11S3-6301-00	.085"	421-086 421-086-1 421-086-3	Smooth bore	.088" 2.24	SRS
11F3-6302-00	.085" LL	421-307 421-307-1 421-307-3	Full detent	.088" 2.24	SRF
11L3-6302-00	.085" LL	421-307 421-307-1 421-307-3	Limited detent	.088" 2.24	SRL
11S3-6302-00	.085" LL	421-307 421-307-1 421-307-3	Smooth bore	.088" 2.24	SRS

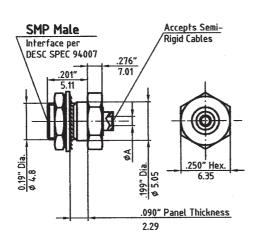


DC - 18.0 GHz
SMP male straight for Semi-Rigid Cable

Connector outer conductor is stainless steel gold plated. Center conductor is berryllium copper gold plated. LL= Low density dielectric.

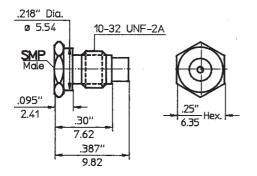


# Semi-Rigid Cable Connectors, Type SMP



DC - 18.0 GHz
SMP male Bulkhead for Semi-Rigid Cable
Connector outer conductor is stainless steel gold plated.
Center conductor is berryllium copper gold plated.
LL= Low density dielectric.

0 N -	S/R	Cable	Inter-	ØΑ	Conn.
Connector Part No.	Cable	Part No.	face	min.	Code
11F2-6401-00	.047"	421-047 421-047-1 421-047-3	Full detent	.049" 1.24	STF
11L2-6401-00	.047"	421-047 421-047-1 421-047-3	Limited detent	.049" 1.24	STL
11S2-6401-00	.047"	421-047 421-047-1 421-047-3	Smooth bore	.049" 1.24	STS
11F2-6402-00	.047" LL	421-047L 421-047L-1 421-047L-3	Full detent	.049" 1.24	STF
11L2-6402-00	.047" LL	421-047L 421-047L-1 421-047L-3	Limited detent	.049" 1.24	STL
11S2-6402-00	.047" LL	421-047L 421-047L-1 421-047L-3	Smooth bore	.049" 1.24	STS
11F3-6401-00	.085"	421-086 421-086-1 421-086-3	Full detent	.088" 2.24	STF
11L3-6401-00	.085"	421-086 421-086-1 421-086-3	Limited detent	.088" 2.24	STL
11S3-6401-00	.085"	421-086 421-086-1 421-086-3	Smooth bore	.088" 2.24	STS
11F3-6402-00	.085" LL	421-307 421-307-1 421-307-3	Full detent	.088" 2.24	STF
11L3-6402-00	.085" LL	421-307 421-307-1 421-307-3	Limited detent	.088" 2.24	STL
11S3-6402-00	.085" LL	421-307 421-307-1 421-307-3	Smooth bore	.088" 2.24	STS



smooth bore DC - 18.0 GHz

### SMP male Bulkhead for Semi-Rigid Cable

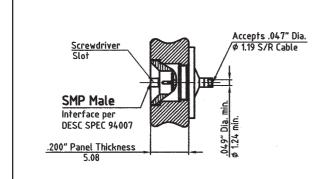
Connector Part No.	S/R	Cable	ØΑ	Conn.
Connector Part No.	Cable	Part No.	min.	Code
11S3-6407-00	085"	421-086 421-086-1	.088"	
1103-0407-00	.005	421-086-3	2.24	SPW
11S3-6408-00	005"	421-307	.088"	SEW
1153-6408-00	.005 LL	421-307-1 421-307-3	2.24	

Connector outer conductor is stainless steel gold plated. Center conductor is berryllium copper gold plated. LL= Low density dielectric.

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# **SMP Semi-Rigid Cable Connectors**





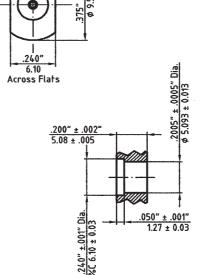
smooth bore

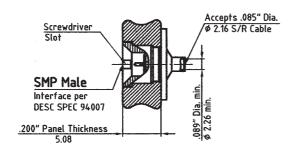
DC - 18.0 GHz

SMP male panel mount for .047" (1.19mm) for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.		Conn. Code
1102-6601-00	.047"	421-047 421-047-1 421-047-3	.049" 1.24	SPS

Connector outer conductor is stainless steel gold plated. Center conductor is beryllium copper gold plated.



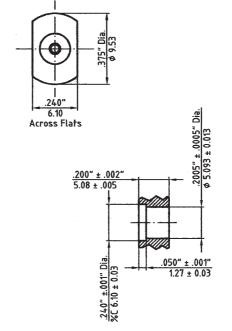


smooth bore DC - 18.0 GHz

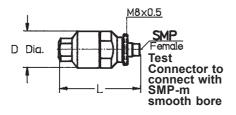
### SMP male panel mount for .085" (2.16mm) for Semi-Rigid Cable

Connector Part No.	_	Cable Part No.		_
1103-6601-00	.085"	421-086 421-086-1 421-086-3	.088" 2.24	SPS

Connector outer conductor is stainless steel gold plated. Center conductor is beryllium copper gold plated.



# Spectrum Semi-Rigid Cable Test Connectors, Type SMP

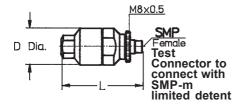


DC - 18.0 GHz

### SMP female Test Connector for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.	ØD	L	Conn. Code
11S3-21J1-02	.085"	421-086 421-086-1 421-086-3	.433" 11.0	.846" 21.5	TJ
11S3-21J2-02	.085" LL	421-307 421-307-1 421-307-3	.433" 11.0	.846" 21.5	13

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated. LL= Low density dielectric.

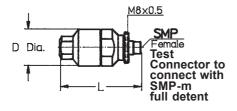


### DC - 18.0 GHz

### SMP female Test Connector - limited detent for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.	ØD	L	Conn. Code
11L3-21J1-02	.085"	421-086 421-086-1 421-086-3	.433" 11.0	.846" 21.5	TJL
11L3-21J2-02	.085" LL	421-307 421-307-1 421-307-3	.433" 11.0	.846" 21.5	IJL

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated. LL= Low density dielectric.



DC - 18.0 GHz

### SMP female Test Connector - full detent for Semi-**Rgid Cable**

O .					
Connector Part No.	S/R Cable	Cable Part No.	ØD	L	Conn. Code
11F3-21J1-02	.085"	421-086 421-086-1 421-086-3	.433" 11.0	.846" 21.5	TJF
11F3-21J2-02	.085" LL	421-307 421-307-1	.433"	.846" 21.5	IJF

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated. LL= Low density dielectric.

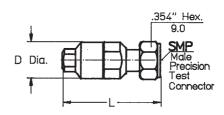
# **SMP Semi-Rigid Cable Test Connectors**



DC - 18.0 GHz SMP male Precision Test Connector for Semi-Rigid Cable

Connector Part No.	S/R Cable	Cable Part No.	ØD	L	Conn. Code
11S3-21P1-02	.085"	421-086 421-086-1 421-086-3	.433" 11.0	1.021" 25.9	TP
11S3-21P2-02	.085" LL	421-307 421-307-1 421-307-3	.433" 11.0	1.021" 25.9	IF

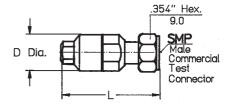
Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated. LL= Low density dielectric.



### DC - 18.0 GHz SMP male Commercial Test Connector for Semi-Rigid Cable

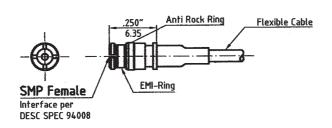
Connector Part No.	S/R Cable	Cable Part No.	ØD	L	Conn. Code
11S3-21C1-02	.085"	421-086 421-086-1 421-086-3	.433" 11.0	1.021" 25.9	TPC
11S3-21C2-02	.085" LL	421-307 421-307-1 421-307-3	.433" 11.0	1.021" 25.9	IFC

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated. LL= Low density dielectric.





# Flexible Cable Connectors, Type SMP

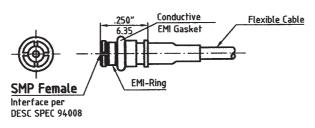


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

### SMP female straight to Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-2101-04	RG-178B/U	78	
1113-2103-04	RD-178B/U	78D	SPF
1113-2102-04	RG-316/U	31	SPF
1113-2104-04	RD-316/U	32	

Connector outer conductor and center contact are beryllium copper gold plated.

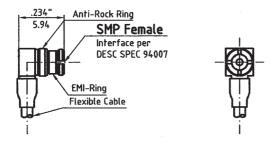


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

### SMP female straight for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-2105-04	RG-178B/U	78	
1113-2107-04	RD-178B/U	78D	SPG
1113-2106-04	RG-316/U	31	SPG
1113-2108-04	RD-316/U	32	

Connector outer conductor and center contact are beryllium copper gold plated.



**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

Connector Part No.	Cable Part No.		Conn. Code
1113-3409-04	RG-178B/U	78	SPQ
1113-3410-04	RD-178B/U	78D	SPQ

Connector outer conductor and center contact are beryllium copper gold plated.

### **SMP Flexible Cable Connectors**

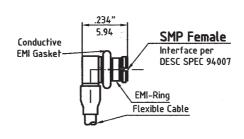


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-3413-04	RG-178B/U	78	SPD
1113-3414-04	RD-178B/U	78D	SPD

Connector outer conductor and center contact are beryllium copper gold plated.



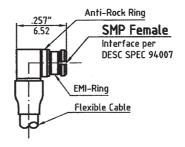


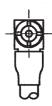
**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-3411-04	RG-316/U	31	SPQ
1113-3412-04	RD-316/U	32	SFQ

Connector outer conductor and center contact are beryllium copper gold plated.



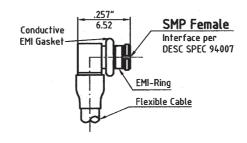


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

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Connector Part No.	Cable	Cable	Conn.
	Part No.	Code	Code
1113-3415-04	RG-316/U	31	SPD
1113-3416-04	RD-316/U	32	SPD

Connector outer conductor and center contact are beryllium copper gold plated.



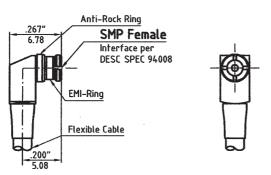


Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

/quickc98/smp2.pm6



# Flexible Cable Connectors, Type SMP

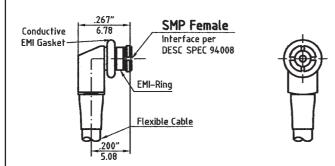


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-3401-04	RG-178B/U	78	
1113-3403-04	RD-178B/U	78D	SPR
1113-3402-04	RG-316/U	31	SPR
1113-3404-04	RD-316/U	32	

Connector outer conductor and center contact are beryllium copper gold plated.

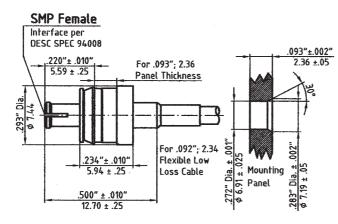


**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female right angle connector for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-3405-04	RG-178B/U	78	
1113-3407-04	RD-178B/U	78D	SPC
1113-3406-04	RG-316/U	31	350
1113-3408-04	RD-316/U	32	

Connector outer conductor and center contact are beryllium copper gold plated.



**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

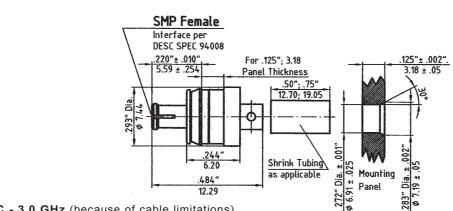
# SMP female Float Mount .092" (2.3mm) Panel for Flexible Cable

Connector Part No.	Cable Part No.	Cable Code	
1113-6502-04	RG-316/U	31	SPP

Connector outer conductor and center contact are beryllium copper gold plated.

# **SMP Flexible Cable Connectors**





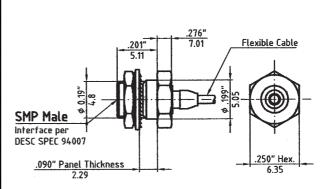
**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

# SMP female Float Mount .125" (3.18mm) Panel for Flexible Cable

Connector Part No.		Cable Code	
1113-6501-04	RG-316/U	31	SPT

Connector outer conductor and center contact are beryllium copper gold plated.

Connector Part No.	Cable Part No.	Cable Code	Inter- face	Conn. Code
11F3-6405-00	RG-178B/U	78	Full detent	STF
11L3-6405-00	RG-178B/U	78	Limited detent	STL
11S3-6405-00	RG-178B/U	78	Smooth bore	STS
11F3-6406-00	RD-178B/U	78D	Full detent	STF
11L3-6406-00	RD-178B/U	78D	Limited detent	STL
11S3-6406-00	RD-178B/U	78D	Smooth bore	STS
11F3-6403-00	RG-316/U	31	Full detent	STF
11L3-6403-00	RG-316/U	31	Limited detent	STL
11S3-6403-00	RG-316/U	31	Smooth bore	STS
11F3-6404-00	RD-316/U	32	Full detent	STF
11L3-6404-00	RD-316/U	32	Limited detent	STL
11S3-6404-00	RD-316/U	32	Smooth bore	STS



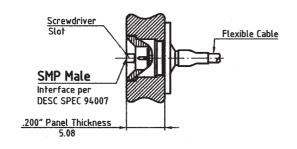
**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

### SMP male bulkhead for Flexible Cable

Connector outer conductor is stainless steel gold plated. Center conductor is beryllium copper gold plated.



# Flexible Cable Connectors, Type SMP



smooth bore

**DC - 3.0 GHz** (because of cable limitations). Flexible high performance cable assemblies to higher frequencies available on request.

### SMP male panel mount for Flexible Cables

Connector Part No.	Cable Part No.	Cable Code	Conn. Code
1113-6601-00	RG-178B/U	78	
1113-6602-00	RD-178B/U	78D	SPS
1113-6603-00	RG-316/U	31	373
1113-6604-00	RD-316/U	32	

Connector outer conductor and center contact are beryllium copper gold plated.

quickc98/smp2.pn

# **SMP Hermetically Sealed Connectors**

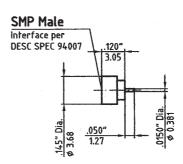


### SMP male hermetic

DC - 18.0 GHz

Connector Part No.	Interface
11F9-5401-40	full detent
11L9-5401-40	limited detent
11S9-5401-40	smooth bore

Connector outer conductor is kovar gold plated. Center conductor is gold plated.

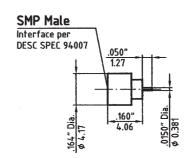


### SMP male hermetic

DC - 18.0 GHz

Connector Part No.	Interface
11F9-5402-40	full detent
11L9-5402-40	limited detent
11S9-5402-40	smooth bore

Connector outer conductor is kovar gold plated. Center conductor is gold plated.

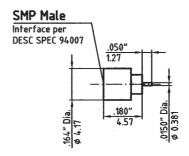


### **SMP** male hermetic

DC - 18.0 GHz

Connector Part No.	Interface
11F9-5403-40	full detent
11L9-5403-40	limited detent
11S9-5403-40	smooth bore

Connector outer conductor is kovar gold plated. Center conductor is gold plated.

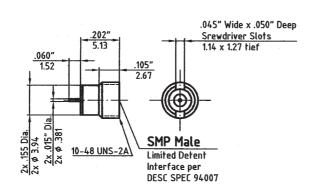


Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

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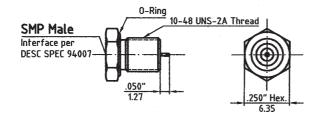
# Hermetically Sealed Connectors, Type SMP



### DC - 18.0 GHz SMP male (hermetic) thread-in style to straight termination

Connector Part No.	Interface
11L9-5404-40	limited detent

Connector outer conductor is kovar gold plataed. Center conductor is gold plated.



### DC - 18.0 GHz SMP male hermetic THD in W/O-Ring

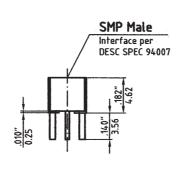
Connector Part No.	Interface
11F9-5405-40	full detent
11L9-5405-40	limited detent
11S9-5405-40	smooth bore

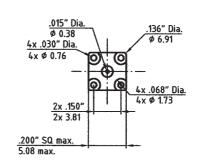
Connector outer conductor is kovar gold plated. Center conductor is gold plated.

inche 98/cmm

# **SMP Circuit Board Connectors**





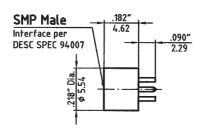


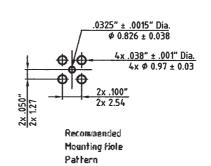
DC - 18.0 GHz

### **SMP** male printed Circuit Board

Connector Part No.	Interface
11F9-5203-02	full detent
11L9-5203-02	limited detent
11S9-5203-02	smooth detent

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.





DC - 18.0 GHz SMP male straight to P.C. Board Connector

Connector Part No.	Interface
11F9-5204-02	limited detent
11L9-5204-02	full detent
11S9-5204-02	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

2x .1185" ± .0015"
2x 3.010 ± 0.038

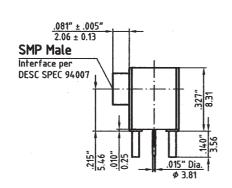
4x .020" ± .007" Square
4x 0.51 ± 0.08 Square

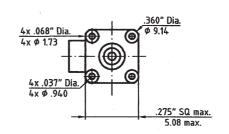
Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

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# **Circuit Board Connectors, Type SMP**

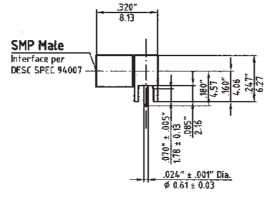


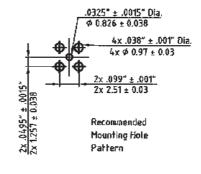


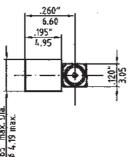
DC - 18.0 GHz
SMP male right angle printed Circuit
Board Connector

20414 00111100101	
Connector Part No.	Interface
11F9-5202-02	full detent
11L9-5202-02	limited detent
11S9-5202-02	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.







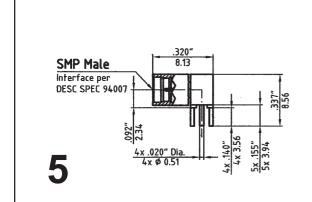
DC - 18.0 GHz SMP male right angle to P.C. Board

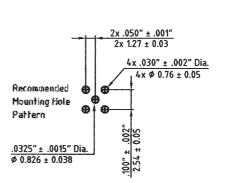
Connector Part No.	Interface
11F9-5201-02	full detent
11L9-5201-02	limited detent
11S9-5201-02	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

## **SMP Circuit Board Connectors**



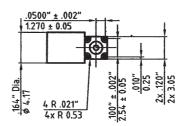


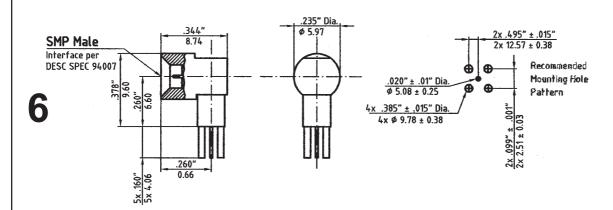


# DC - 18.0 GHz SMP male right angle P.C. Board

Connector Part No.	Interface
1199-5201-00	full detent

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

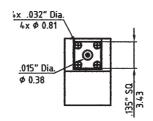




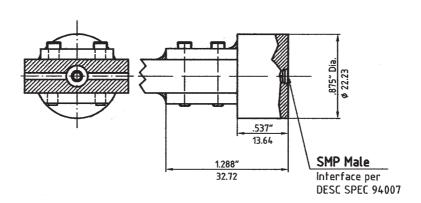
### DC - 18.0 GHz SMP male right angle PCB mount

Connector Part No.	Interface
11S9-5205-00	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



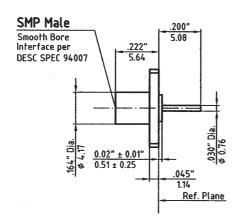
# **Circuit Board Connectors, Type SMP**

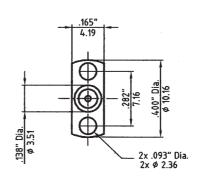


DC - 18.0 GHz SMP male edge launched connector

Connector Part No.	Interface
11S9-5207-00	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.





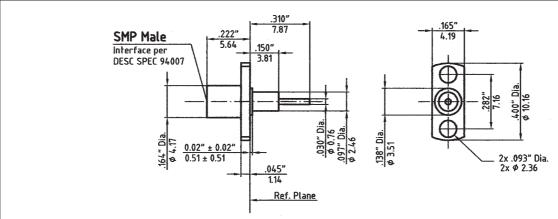
DC - 18.0 GHz SMP male flange mount

Connector Part No.	Interface
11S9-6306-02	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

# **SMP Circuit Board Connectors**



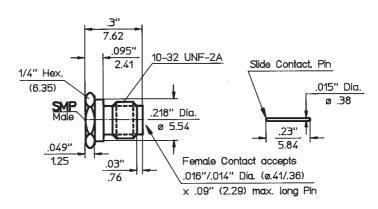


DC - 18.0 GHz

### SMP male flange mount

Connector Part No.	Interface
11F9-6305-02	full detent
11L9-6305-02	limited detent
11S9-6305-02	smooth bore

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

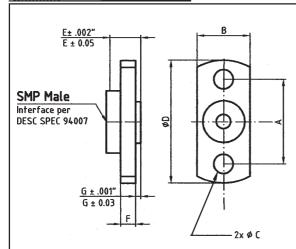


DC - 18.0 GHz

### SMP male bulkhead

Connector Part No.	Interface
11S3-6411-00	smooth bore

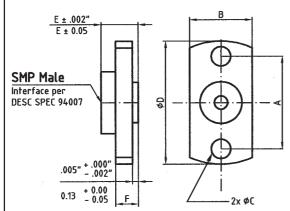
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



### SMP male full detent shroud

Connector Part No.	Α	В	øс	ØD	E	F	G
11F9-6301-02	.328"	.187"	.098"	.480"	.120"	.045"	.004"
111-9-0301-02	8.33	4.75	2.49	12.19	3.05	1.14	.10
					.120"		.002"
11179-6302-02	12.22	5.66	2.59	15.88	3.05	1.14	.05
11F9-6303-02	.282"	.165"	.073"	.400"	.120"	.045"	.002"
					3.05		.05
11F9-6304-02	.400"	.186"	.103"	.550"	.120"	.045"	.004"
111 3-0304-02					3.05		.10

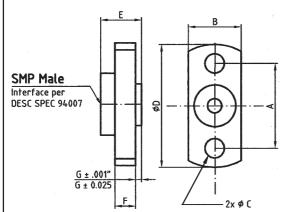
Connector outer conductor is passivated stainless steel. Dimensions shown are inches over millimeters.



### SMP male shroud non-detent

Connector Part No.	Α	В	øс	ØD	Е	F
11N9-6301-02	.352"	.235"	.073"	.470"	.120"	.045"
11149-0301-02	8.94	5.97	1.85	11.94	3.05	1.14
11N9-6302-02	.481"	.235"	.102"	.625"	.120"	.045"
11149-6302-02	12.22	5.97	2.59	15.88	3.05	1.14
11N9-6303-02	.400"	.235"	.073"	.550"	.120"	.045"
11145-0505-02	10.16	5.97	1.85	13.97	3.05	1.14

Connector outer conductor is passivated stainless steel. Dimensions shown are inches over millimeters.



### SMP male shroud limited detent

Connector Part No.	Α	_		ØD	_	F	G
441.0.6204.02	.328"	.187"	.098"	.480"	.120"	.045"	.004"
11L9-6301-02	8.33	4.75	2.49	12.19	3.05	1.14	.10
441.0.6202.02	.481"	.223"	.102"	.625"	.120"	.045"	.002"
11L9-6302-02	12.22	5.66	2.59	15.88	3.05	1.14	.05
11L9-6303-02		.165"	.073"	.400"	.120"	.045"	.002"
1129-0303-02	7.16	4.19	1.85	10.16	3.05	1.14	.05

Connector outer conductor is passivated stainless steel. Dimensions shown are inches over millimeters.

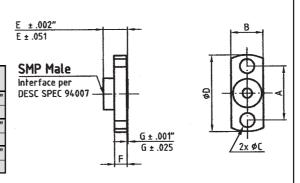
# **SMP Shrouds**



### SMP male shroud smooth bore

Connector Part No.		В	~ •	ØD	_	F	G
11S9-6301-02	.328"	.187"	.098"	.480"	.120"	.045"	.004"
1139-0301-02	8.33	4.75	2.49	12.19	3.05	1.14	.10
1150 6202 02	.481"	.223"	.102"	.625"	.120"	.045"	.002"
11S9-6302-02	12.22	5.66	2.59	15.88	3.05	1.14	.05
11S9-6303-02		.165"	.073"	.400"	.120"	.045"	.002"
1139-0303-02	7.16	4.19	1.85	10.16	3.05	1.14	.05

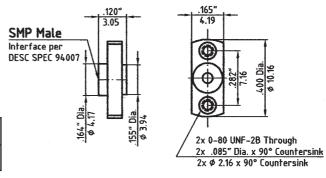
Connector outer conductor is passivated stainless steel. Dimensions shown are inches over millimeters.



# SMP male detent shroud

Connector Part No.	Interface
11N9-6304-02	non detent

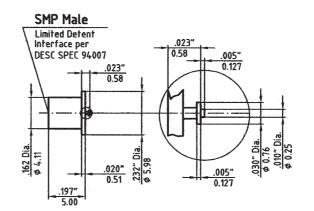
Connector outer conductor is passivated stainless steel.



# SMP male surface mount round flange

Connector Part No.	Interface
11L9-6304-02	limited detent

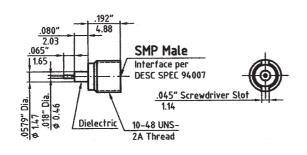
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

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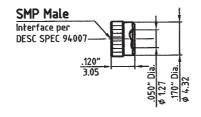
## **Shrouds, Type SMP**



#### SMP male thread in

Connector Part No.	Interface
11F9-1101-02	full detent
11L9-1101-02	limited detent
11S9-1101-02	smooth bore

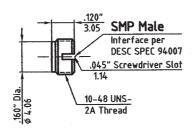
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### SMP male press in shroud

Connector Part No.	Interface
11F9-1102-02	full detent
11L9-1102-02	limited detent
11S9-1102-02	smooth bore

Connector outer conductor is passivated stainless steel.



#### SMP Shroud, thread in style

Connector Part No.	Interface
11F9-1103-02	full detent
11L9-1103-02	limited detent
11S9-1103-02	smooth bore

Connector outer conductor is passivated stainless steel.

Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

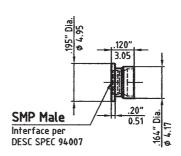
#### **SMP Shrouds**



#### SMP Shroud solder in

Connector Part No.	Interface
11F9-1104-02	full detent
11L9-1104-02	limited detent
11S9-1104-02	smooth bore

Connector outer conductor is passivated stainless steel.



Dimensions shown are inches over millimeters. Standard units are beryllium copper gold plated (last two digits of the P/N are -04), or stainless steel gold plated (last two digits of the P/N are -00). Interface mating dimensions and specifications, as issued by DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

## Spectrum Spectrum

# SMP

1.	SMP Specifications/Interface Dimensions	132
2.	Connectors of Type SMP	141
	Adapters SMP to SMP	170
	Test Adapters SMP to SMP	172
	Test Adapters SMP to 2.4mm	173
	Test Adapters SMP to 3.5mm	177
3.	Adapters SMP to 7mm	181
	Test Adapters SMP to 7mm	182
	Adapters SMP to K*	183
	Test Adapters SMP to K*	187
	Adapters SMP to SMA	191

#### CONTENT

INTRODUCTION to PUSH-ON CONNECTORS & ADAPTERS Page 9

**7/16** Push-on Page 15

BMA Page 27

PUSH-ON Page 45

SBX Page 61

SBY Page 85

SMA PUSH-ON Page 107

SMA PUSH-ON Reverse Page 119

**SMP** 

TNC PUSH-ON Page 193

**CABLE ASSEMBLIES** 

with INTERCHANGEABLE

**CONNECTORS** Page 213

Kits with I./CONNECTORS Page 221

w/PUSH-ONs Page 225

RAW CABLE **SPECIFICATIONS** Page 245

**RF MULTI PIN** Page 265

> **TOOLS** Page 271

**ASSEMBLY INSTRUCTIONS** Page 289

**SPECIAL PRODUCTS** & SERVICES Page 353

**APPENDIX** 

169

Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49) \* 'K' Connector is a trademark of Wiltron Company.

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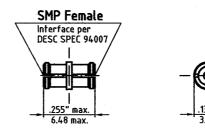






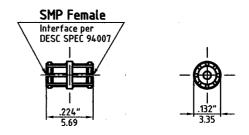
Adapter Part No.	8001-MPMP-04
Connector Config.	SMP-f to SMP-f
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 to 40.0 GHz

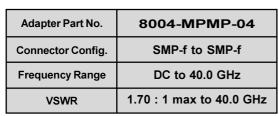
Connector outer conductor and center contact are berrylium copper gold plated.



Adapter Part No.	8003-MPMP-04
Connector Config.	SMP-f to SMP-f
Frequency Range	DC to 40.0 GHz
VSWR	1.70 : 1 max to 40.0 GHz

Connector outer conductor and center contact are berrylium copper gold plated.



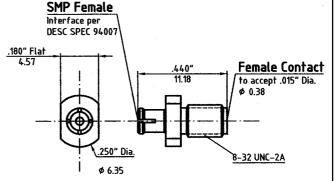


Connector outer conductor and center contact are berrylium copper gold plated.

SMP Female Interface per DESC SPEC 94007	
.2535" 6.439 .395"	- <del> </del> - 132" - 132" - 1335"

Adapter Part No.	8005-MPMP-04
Connector Config.	SMP-f to SMP-f
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

Connector outer conductor and center contact are berrylium copper gold plated.



Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

70 Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)

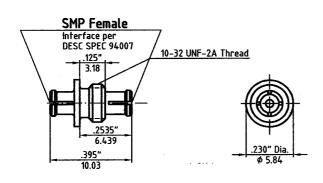
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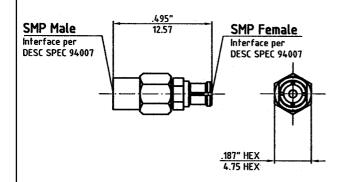


## **In-Series Adapters, Type SMP**



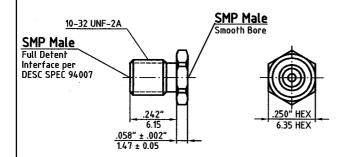
Adapter Part No.	8006-MPMP-04
Connector Config.	SMP-f to SMP-f
Frequency Range	DC to 40.0 GHz
VSWR	1.7 : 1 max to 40.0 GHz

Connector outer conductor and center contact are berrylium copper gold plated.



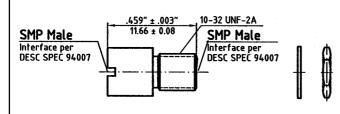
Adapter Part No.	8002-MJMP-04
Connector Config.	SMP-f to SMP-m
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 max to 40.0 GHz

Connector outer conductor and center contact are berrylium copper gold plated.



Adapter Part No.	8002-MJMJ-02
Connector Config.	SMP-m to SMP-m
Frequency Range	DC to 40.0 GHz
VSWR	1.3 : 1 max to 40.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated.



171

Adapter Part No.	8003-MJMJ-02
Connector Config.	SMP-m to SMP-m
Frequency Range	DC to 40.0 GHz
VSWR	1.3 : 1 max to 40.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is beryllium copper gold plated.

171

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per DESC 94007 and DESC 94008. For details please refer to the beginning of this section.

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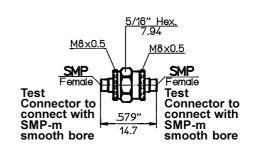




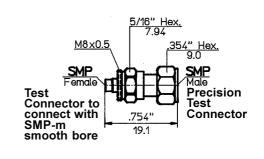
## **SMP** Calibration Test Components, Throughlines



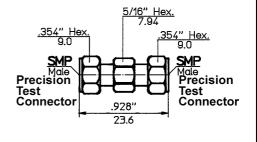
SMP-F to SMP-F		
Part No.	Frequency	VSWR
8801-TPTP-02	DC - 18.0	1.15 : 1
8802-TPTP-02	DC - 40.0	1.2:1



SMP-F to SMP-M		
Part No.	Frequency	VSWR
8801-TJTP-02	DC - 18.0	1.15 : 1
8802-TJTP-02	DC - 40.0	1.2:1



SMP-M to SMP-M		
Part No.	Frequency	VSWR
8801-TJTJ-02	DC - 18.0	1.15:1
8802-TJTJ-02	DC - 40.0	1.2:1

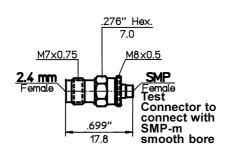


Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per Spectrum Elektrotechnik GmbH Specifications. For details please refer to the beginning of this section.

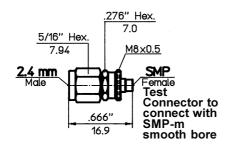
72 Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)

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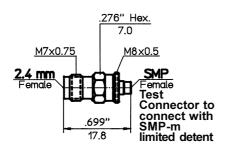




Part - No.	8801-HFTP-02
Connectors	SMP-F to 2.4mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

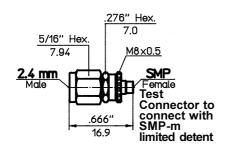


Part - No.	8801-HMTP-02	
Connectors	SMP-F to 2.4mm -M	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10:1	



SMP-f connect with SMP male limited detent.

Part - No.	8801-HFTL-02	
Connectors	SMP-F to 2.4mm -F	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10:1	



Part - No.	8801-HMTL-02	
Connectors	<b>SMP-</b> F to <b>2.4mm</b> -M	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10:1	

SMP-f connect with SMP male limited detent.

173

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)

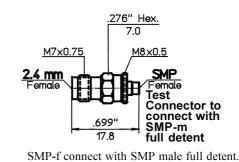
-0, Fax (89) 354 804-90 (Country Code: 49) 173

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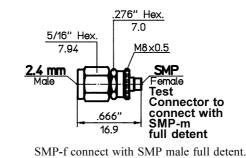
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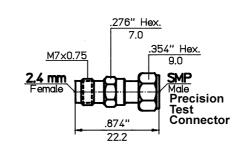
Part - No.	8801-HFTF-02
Connectors	SMP-F to 2.4mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



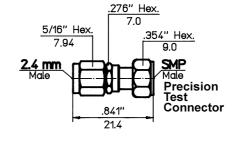
Part - No.	8801-HMTF-02
Connectors	SMP-F to 2.4mm -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



Part - No.	8801-HFTJ-02
Connectors	<b>SMP</b> -M to 2.4mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



Part - No.	8801-HMTJ-02	
Connectors	SMP-м to 2.4mm -м	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10:1	



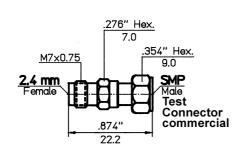
Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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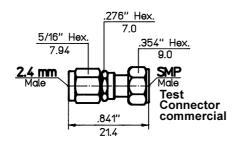
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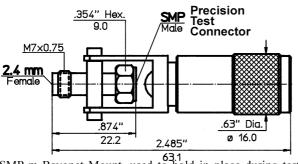
SMP-m commercial

Part - No.	8801-HFTC-02		
Connectors	SMP-M to 2.4mm -F		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10:1		



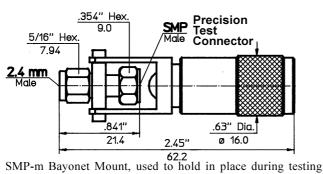
Part - No.	8801-HMTC-02			
Connectors	SMP-M to 2.4mm -M			
Frequency	DC - 18.0 GHz			
VSWR max.	1.10:1			





SMP-m Bayonet Mount,	used	to	hold	in	place	during	testing
the SMP right angle.							

Part - No.	8801-HFTB- 02		
Connectors	SMP-M to 2.4mm -F		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10:1		



Part - No.	8801-HMTB- 02		
Connectors	<b>SMP</b> -M to <b>2.4mm</b> -M		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10:1		

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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(0) 001 001 0, 144 (0) 001 001 70 (Country Code. 15)

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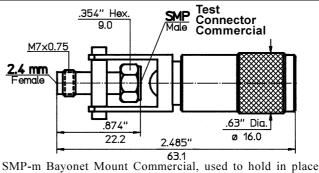
the SMP right angle.

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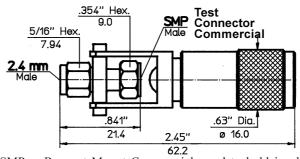




Part - No.	8801-HFTD-02		
Connectors	SMP-M to 2.4mm -F		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10 : 1		



Part - No.	8801-HMTD-02
Connectors	SMP-M to 2.4mm -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



during testing the SMP right angle.

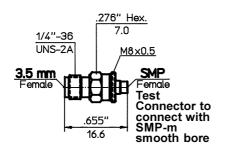
SMP-m Bayonet Mount Commercial, used to hold in place during testing the SMP right angle.

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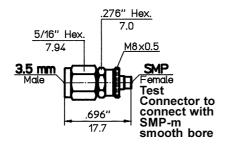
Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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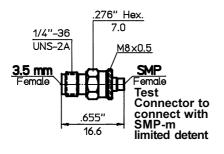




Part - No.	8801-TP92-02		
Connectors	SMP-F to 3.5mm -F		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10:1		

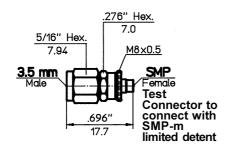


Part - No.	8801-TP91-02
Connectors	SMP-F to 3.5mm -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



SMP-f connect with SMP male limited detent.

Part - No.	8801-TL92-02
Connectors	SMP-F to 3.5mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



	SMP-f connect with	SMP	male	limited	detent.
--	--------------------	-----	------	---------	---------

Part - No.	8801-TL91-02
Connectors	<b>SMP-</b> F to 3.5mm -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

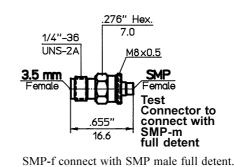
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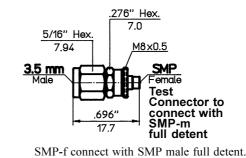




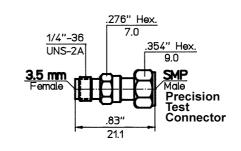
Part - No.	8801-TF92-02
Connectors	SMP-F to 3.5mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



Part - No.	8801-TF91-02
Connectors	SMP-F to 3.5mm -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1

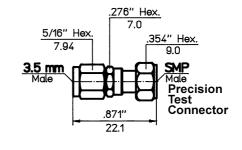


Part - No.	8801- TJ92 - 02
Connectors	SMP-M to 3.5mm -F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



Part - No.	8801-TJ91-02
Connectors	<b>SMP-</b> <sub>M</sub> to <b>3.5mm-</b> <sub>M</sub>
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

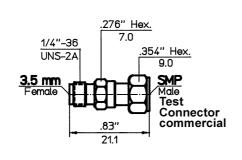
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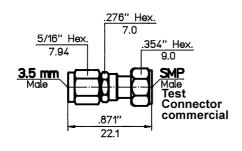
Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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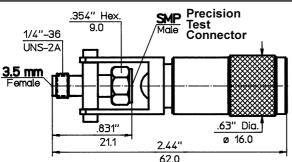
Part - No.	8801-TC92-02
Connectors	<b>SMP-</b> <sub>M</sub> to <b>3.5mm-</b> <sub>F</sub>
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



SMP-m commercial

SMP-m commercial

Part - No.	8801-TC91-02
Connectors	SMP-M to 3.5mm-M
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



Part - No.	8801-TB92-02
Connectors	SMP-m to 3.5mm-F
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

SMP-m Bayonet Mount, used to hold in place during testing the SMP right angle.

.354" 9. 5/16" Hex. 7.94		ecision st onnector
3.5 mm Male		
	871" 22.1 2.48"	.63" Dia. ø 16.0
SMP-m Bayonet Mo	63.0 ount, used to hold i	n place during testing

179

Part - No.	8801-TB91- 02
Connectors	<b>SMP</b> -M to <b>3.5mm</b> -M
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section

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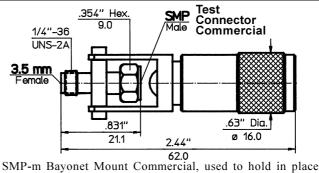
the SMP right angle.





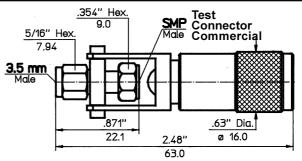


Part - No.	8801-TD92-02
Connectors	<b>SMP-</b> <sub>M</sub> to <b>3.5mm-</b> <sub>F</sub>
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



SMP-m Bayonet Mount Commercial, used to hold in place during testing the SMP right angle.

Part - No.	8801-TD91-02
Connectors	SMP-m to 3.5mm-m
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



SMP-m Bayonet Mount Commercial, used to hold in place during testing the SMP right angle.

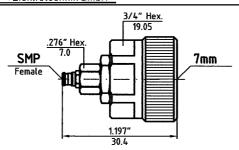
Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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<u></u>

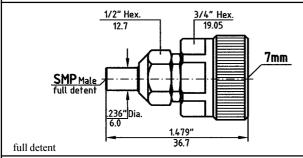


## Between-Series Adapters, TypeSMP



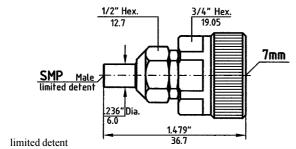
Adapter Part No.	8001-MP90-02
Connector Config.	SMP-f to 7mm
Frequency Range	DC to 18.0 GHz
VSWR	1.10 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated. If you require 6 slots at the 7mm Center Conductor, code changes to 8001-MP96-02.



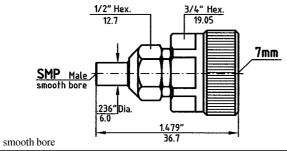
Adapter Part No.	8001-MJ90-02
Connector Config.	SMP-m to 7mm
Frequency Range	DC to 18.0 GHz
VSWR	1.10 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated. If you require 6 slots at the 7mm Center Conductor, code changes to 8001-MJ96-02.



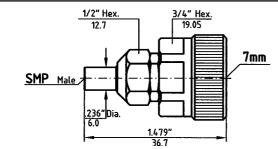
Adapter Part No.	8002-MJ90-02
Connector Config.	SMP-m to 7mm
Frequency Range	DC to 18.0 GHz
VSWR	1.10 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated. If you require 6 slots at the 7mm Center Conductor, code changes to 8002-MJ96-02.



Adapter Part No.	8003-MJ90-02
Connector Config.	SMP-m to 7mm
Frequency Range	DC to 18.0 GHz
VSWR	1.10 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated. If you require 6 slots at the 7mm Center Conductor, code changes to 8003-MJ96-02.



Adapter Part No.	8004-MJ90-02
Connector Config.	SMP-m to 7mm
Frequency Range	DC to 18.0 GHz
VSWR	1.10 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated. If you require 6 slots at the 7mm Center Conductor, code changes to 8004-MJ96-02.

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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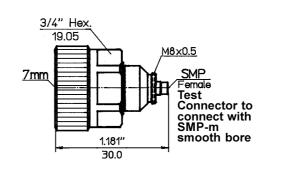




Spectrum Spectnik GmbH

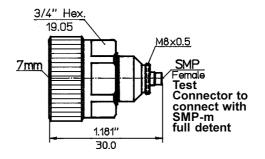
The Center Conductor of the 7 mm Connector is supplied with 4 slots. If you require 6 slots, Connector Code changes from 90 to 96.

Part - No.	8801-TP90-02
Connectors	SMP-F to 7mm
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



The Center Conductor of the 7 mm Connector is supplied with 4 slots. If you require 6 slots, Connector Code changes from **90** to **96**.

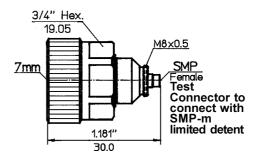
Part - No.	8801-TF90-02
Connectors	SMP-F to 7mm
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



SMP-f connect with SMP male full detent.

The Center Conductor of the 7 mm Connector is supplied with 4 slots. If you require 6 slots, Connector Code changes from **90** to **96**.

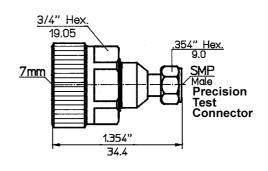
Part - No.	8801-TL90-02
Connectors	SMP-F to 7mm
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



SMP-f connect with SMP male limited detent.

The Center Conductor of the 7 mm Connector is supplied with 4 slots. If you require 6 slots, Connector Code changes from 90 to 96.

Part - No.	8801-TJ90-02
Connectors	SMP-M to 7mm
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1



Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

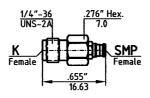
182 Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)





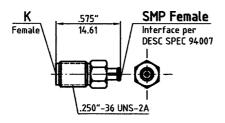


## Between-Series Adapters, Type SMP



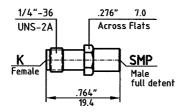
Adapter Part No.	8001-KF <b>M</b> P-02
Connector Config.	SMP-f to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Adapter Part No.	8002-KF <b>M</b> P-02
Connector Config.	SMP-f to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 max to 40.0 GHz

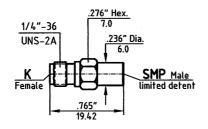
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### full detent

Adapter Part No.	8001-KFMJ-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### limited detent

Adapter Part No.	8002-KF <b>M</b> J-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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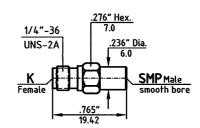




smooth bore

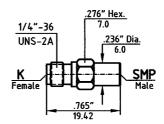
Adapter Part No.	8003-KFMJ-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Adapter Part No.	8004-KF <b>M</b> J-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

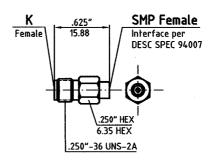
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### limited detent

Adapter Part No.	8002-KF <b>M</b> J-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 max to 40.0 GHz

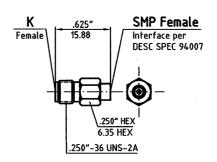
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### smooth bore

Adapter Part No.	8003-KF <b>M</b> J-02
Connector Config.	SMP-m to K*-f
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 max to 40.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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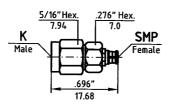
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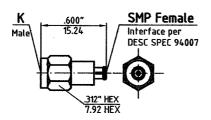


## Between-Series Adapters, Type SMP



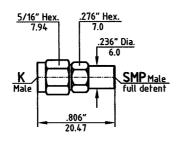
Adapter Part No.	8001-KMMP-02
Connector Config.	SMP-f to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Adapter Part No.	8002-KMMP-02
Connector Config.	SMP-f to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.5 : 1 max to 40.0 GHz

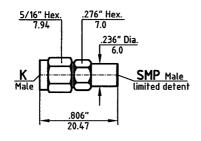
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### full detent

Adapter Part No.	8001-KMMJ-02
Connector Config.	SMP-m to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### limited detent

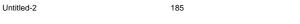
Adapter Part No.	8002-KMMJ-02
Connector Config.	SMP-m to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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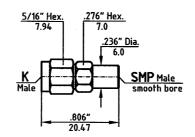




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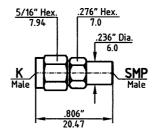
Adapter Part No.	8003-KMMJ-02
Connector Config.	SMP-m to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



Adapter Part No.	8004-KMMJ-02
Connector Config.	SMP-m to K*-m
Frequency Range	DC to 40.0 GHz
VSWR	1.20 : 1 max.

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.





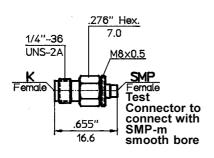


Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

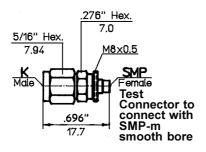
86 Spectrum Elektrotechnik GmbH P.O. Box 45 05 33, 80905 Munich, Germany Tel. (89) 354 804-0, Fax (89) 354 804-90 (Country Code: 49)

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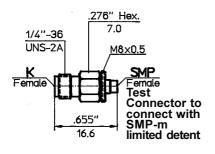




Part - No.	8801-KFTP-02	
Connectors	SMP-F to K*-F	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10:1	

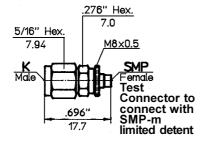


Part - No.	8801-KMTP-02					
Connectors	SMP-F to K*-M					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10:1					



SMP-f connect with SMP male limited detent.

Part - No.	8801-KFTL-02					
Connectors	SMP-F to K*-F					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10:1					



Part - No.	8801-KMTL-02					
Connectors	SMP-F to K*-M					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10 : 1					

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

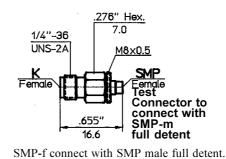
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(Country Code: 49) **187** 



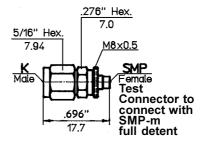


Part - No.	8801-KFTF-02
Connectors	SMP-F to K*-F
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



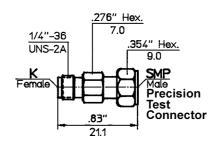
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Part - No.	8801-KMTF-02					
Connectors	SMP-F to K*-M					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10:1					



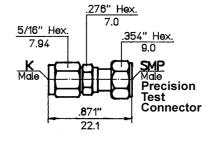
SMP-f connect with SMP male full detent.

Part - No.	8801- KFTJ - 02					
Connectors	SMP-M to K*-F					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10 : 1					



Part - No.	8801-KMTJ-02					
Connectors	SMP-M to K*-M					
Frequency	DC - 18.0 GHz					
VSWR max.	1.10:1					

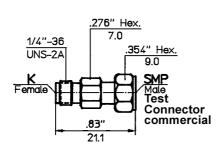
188



Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

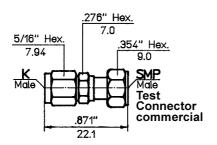
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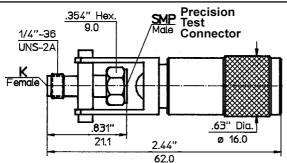


SMP-m commercial

Part - No.	8801-KFTC-02				
Connectors	SMP-M to K*-F				
Frequency	DC - 18.0 GHz				
VSWR max.	1.10:1				



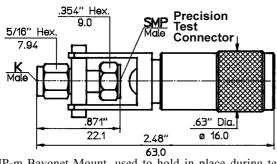
Part - No.	8801-KMTC-02				
Connectors	SMP-m to K*-m				
Frequency	DC - 18.0 GHz				
VSWR max.	1.10:1				



SMP-m commercial

		•	3Z.U				
SMP-m Bayonet Mount,	used	to	hold	in	place	during	testing
the SMP right angle.							

Part - No.	8801-KFTB- 02		
Connectors	SMP-M to K*-F		
Frequency	DC - 18.0 GHz		
VSWR max.	1.10:1		



		Ο.	J. U				
SMP-m Bayonet Mount,	used	to	hold	in	place	during	testing
the SMP right angle.							

Part - No.	8801-KMTB- 02
Connectors	SMP-M to K*-M
Frequency	DC - 18.0 GHz
VSWR max.	1.10:1

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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<sup>49)</sup> **189** 



189

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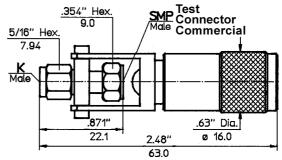


Part - No.	8801-KFTD-02	
Connectors	SMP-M to K*-F	
Frequency	DC - 18.0 GHz	
VSWR max.	1.10 : 1	

1/4"-3 UNS-2	.354" Hex. 9.0	Test Connector Commercial
K Female		
	.831" 21.1 2.4	
	62	.0

SMP-m Bayonet Mount Commercial, used to hold in place during testing the SMP right angle.

Part - No.	8801-KMTD-02
Connectors	SMP-M to K*-M
Frequency	DC - 18.0 GHz
VSWR max.	1.10 : 1



SMP-m Bayonet Mount Commercial, used to hold in place during testing the SMP right angle.

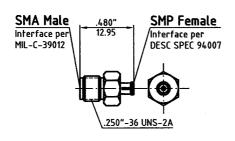
Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, Spectrum Elektrotechnik GmbH Specifications, as applicable. For details please refer to the beginning of this section.

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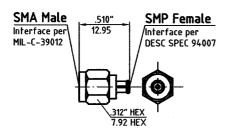


## Between-Series Adapters, Type SMP



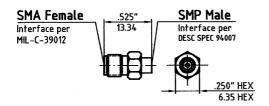
Adapter Part No.	8001-MP21-04
Connector Config.	SMP-f to SMA-f
Frequency Range	DC to 12.0 GHz
VSWR	1.03 + 0.01 x f (GHz)

Connector outer conductor is passivated stainless steel. Center conductor is berrylium copper gold plated.



Adapter Part No.	8001-MP11-04
Connector Config.	SMP-f to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

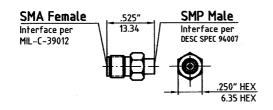
Connector outer conductor is passivated stainless steel. Center conductor is berrylium copper gold plated.



#### limited detent

Adapter Part No.	8001-MJ21-02
Connector Config.	SMP-m to SMA-f
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



#### smooth bore

Adapter Part No.	8002-MJ21-02
Connector Config.	SMP-m to SMA-f
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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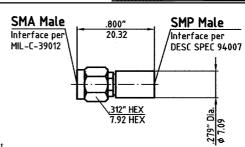




# Spectrum Spectrum

Adapter Part No.	8003-MJ11-02
Connector Config.	SMP-m to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

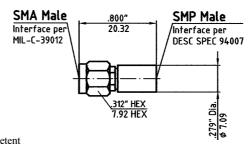
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



full detent

Adapter Part No.	8004-MJ11-02
Connector Config.	SMP-m to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

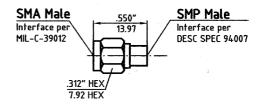
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



limited detent

Adapter Part No.	8001-MJ11-02
Connector Config.	SMP-m to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

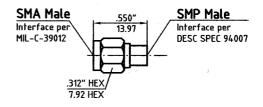
Connector outer conductor is passivated stainless steel. Center conductor is gold plated.



limited detent

Adapter Part No.	8002-MJ11-02
Connector Config.	SMP-m to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

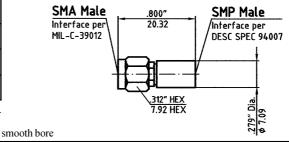


smooth bore

Adapter Part No.	8005-MJ11-02
Connector Config.	SMP-m to SMA-m
Frequency Range	DC to 18.0 GHz
VSWR	1.25 : 1 max to 18.0 GHz

Connector outer conductor is passivated stainless steel. Center conductor is gold plated.

Untitled-2



Dimensions shown are inches over millimeters. Standard units have stainless steel finish (last two digits of the P/N are -02). Interfaces are per MIL-C 39012, MIL-C-87104/2, MIL-C-3643, MIL-STD-348, IEC-169-7, IEC-457-2, DIN 47 223, DIN 47 226, DIN 47 298, DESC 94007 and DESC 94008, where applicable. For details please refer to the beginning of this section.

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192

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