

RF Interconnects and Cable Assemblies

- MILITARY • AEROSPACE • HIGH SPEED DIGITAL
- INDUSTRIAL • TEST AND INSTRUMENTATION

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SV Microwave - About Us

SV Microwave is a world leader in the RF/Microwave industry with over 40 years of proven performance. We design and manufacture RF/Microwave coaxial connectors, cable assemblies and passive components for military, satellite, aerospace, commercial and telecommunications applications.

We specialize in customized application specific solutions, but also offer a wide range of Commercial Off The Shelf (COTS) products shown in this catalog. When it comes to the design and manufacture of precision products, SV Microwave has set the standard.

SV Microwave is committed to helping our customers meet their RF/Microwave performance goals with our highly talented engineering team, outstanding customer service and precision manufacturing capabilities.

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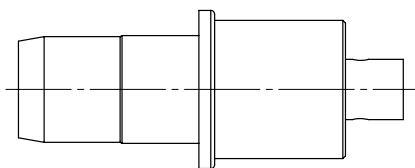
Rev. 3 (01/18)

Coaxial Contacts

Coaxial Contacts Interface at a Glance

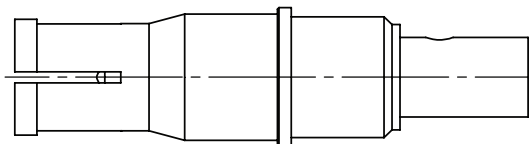
System design and platform needs have required smaller packaging with RF, D/C signal and power all in close proximity. Our proven designs and blindmate technology have enabled the integration of multiport RF signals into single housings for gang mating capability. Various existing form factors such as D38999, ARINC, Micro-D and D-Sub have provided standard components and familiar shell sizes. Hybrid technology fuses RF and D/C contacts into a single connector simplifying design and installation while eliminating discrete wiring.

Pin D38999 Cable Contact (Size 8)



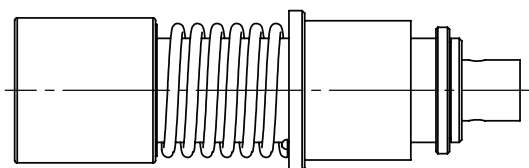
Cable	Series	Part Number	Freq.
0.085	BMA	SF9421-6000	26.5 GHz
0.085	BMZ	SF9821-6000	18 GHz
0.085	NSME	8001-4107	3 GHz

Socket D38999 Cable Contact (Size 8)



Cable	Series	Part Number	Freq.
0.085	NSME	8001-4108	3 GHz

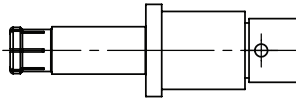
Socket D38999 Cable Contact (Size 8), Spring Loaded



Cable	Series	Part Number	Freq.
0.085	BMA	SF9411-6000	26.5 GHz
0.085	BMZ	SF9811-6000	18 GHz

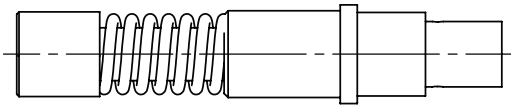
Coaxial Contacts

Pin D38999 Cable Contact (Size 12)



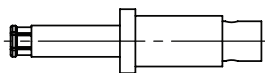
Cable	Series	Part Number	Freq.
0.085	NSME	8001-4102	3 GHz
0.085	SMPM	3221-4002	50 GHz

Socket D38999 Cable Contact (Size 12)



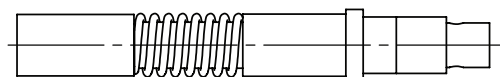
Cable	Series	Part Number	Freq.
0.085	NSME	8001-4104	3 GHz
0.085	SMPM	SF3211-6004	50 GHz

Pin D38999 Cable Contact (Size 16)



Cable	Series	Part Number	Freq.
0.047	SMPS	9921-40001	50 GHz

Socket D38999 Cable Contact (Size 16)



Cable	Series	Part Number	Freq.
0.047	SMPS	SF9911-60001	50 GHz

SMA Series

SMA Interface at a Glance

SMA is an acronym for SubMiniature version A and was developed in the 1960's. Using a threaded interface, 50 Ohm SMA connectors are precision subminiature units that provide excellent electrical performance from DC to 26.5 GHz. These high-performance connectors are compact in size and mechanically have outstanding durability. Built in accordance with MIL-PRF-39012 and CECC 22110/111, SMA connectors can be mated with all connectors that meet these spec mating diameters regardless of manufacturer.

Electrical Specifications

Impedance	50Ω
Frequency	18 GHz (select models to 26.5 GHz)
VSWR	1.05 + .005 f
Insertion Loss	.03 √ f
Shielding Effectiveness	≥ -90 - f dB
Dielectric Withstanding Voltage	1000 VRMS

Mechanical Specifications

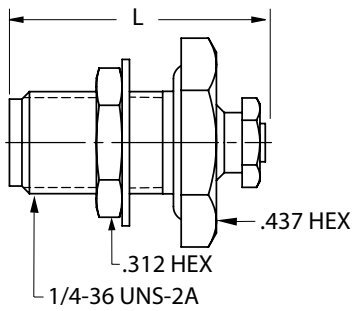
Mating Cycles	500
Mating Torque	7 - 10 in - lbs

Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +125°C
Moisture Resistance	MIL-STD-202, Method 106, Less Step 7B
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

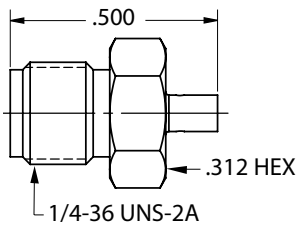
Note: Specifications, dimensions and images are typical for the series and may vary by part number

Female Bulkhead Cable Connector



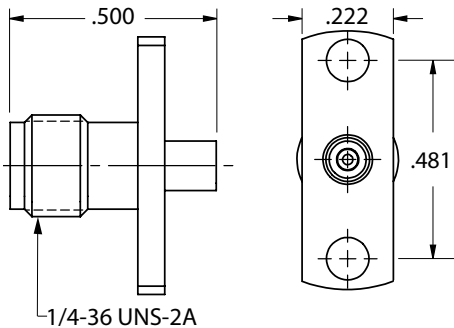
Cable	Part Number	L
0.047	2944-6001	.618"
0.085	2946-6012	.575"
0.085	M39012/83-3007	.625"
0.141	2942-6045	.750"

Female Cable Connector



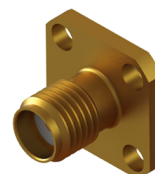
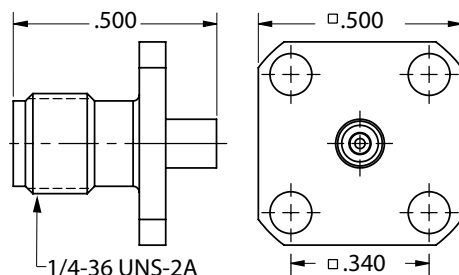
Cable	Part Number
0.047	2926-6015
0.085	2921-6002
0.141	2922-6007

Female Flange Mount Cable Connector, 2 Hole



Cable	Part Number
0.085	2933-6001

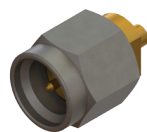
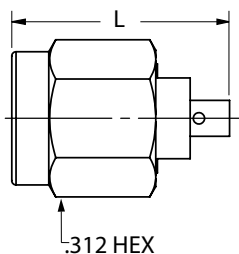
Female Flange Mount Cable Connector, 4 Hole



Cable	Part Number
0.085	2933-6004
0.085	M39012/82B3001

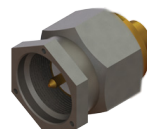
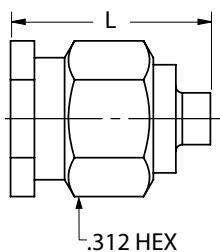
SMA Series

Male Cable Connector



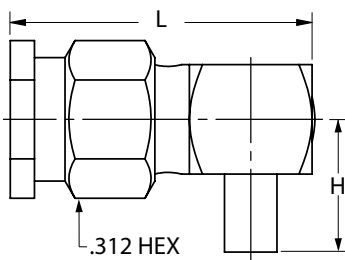
Cable	Part Number	L
0.047	SF2911-60172	.499"
0.085	SF2906-6002	.440"
0.085	M39012/79B3101	.828"
0.141	SF2902-6001	.330"
0.141	SF2902-6005	.449"
0.141	M39012/79-3108	.460"

Male Cable Connector, Lockwire Holes



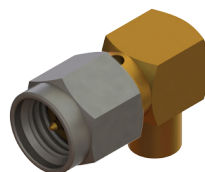
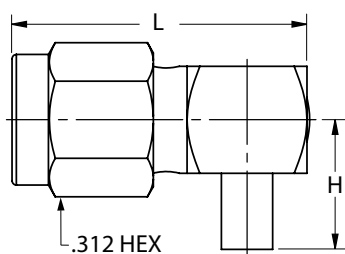
Cable	Part Number	L
0.085	M39012/79-3007	.440"
0.085	M39012/79B3001	.449"
0.141	M39012/79B3002	.440"

Male Cable Connector, Lockwire Holes, R/A



Cable	Part Number	L	H
0.085	M39012/80-3005	.738"	.303"
0.141	M39012/80-3006	.689"	.312"

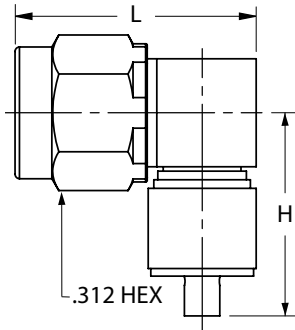
Male Cable Connector, R/A



Cable	Part Number	L	H
0.085	SF2915-6001	.682"	.312"
0.085	M39012/80B3101	.689"	.310"
0.085	M39012/80-3107	.738"	.625"
0.141	2912-6001	.675"	.312"
0.141	SF2912-6001	.675"	.312"
0.141	M39012/80-3108	.738"	.625"

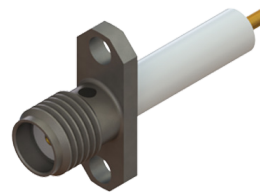
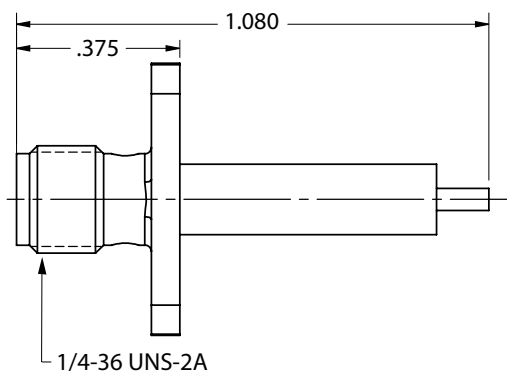
SMA Series

Male Cable Connector, Swept R/A



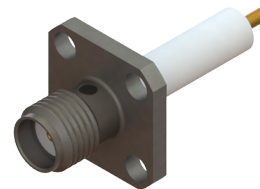
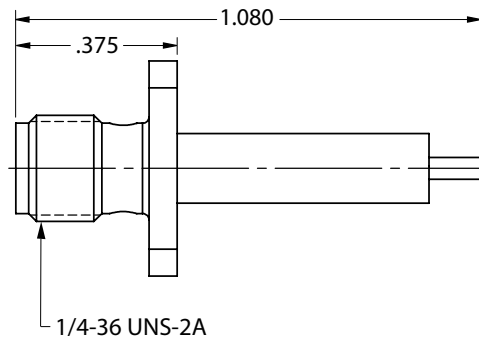
Cable	Part Number	L	H
0.047	SF2912-60955	.552"	.470"
0.085	SF2915-6605	.558"	.448"
0.141	SF2912-6605	.552"	.448"

Female Flange Mount Connector, 2 Hole (Candlestick)



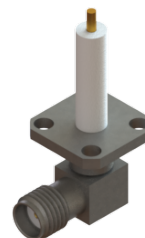
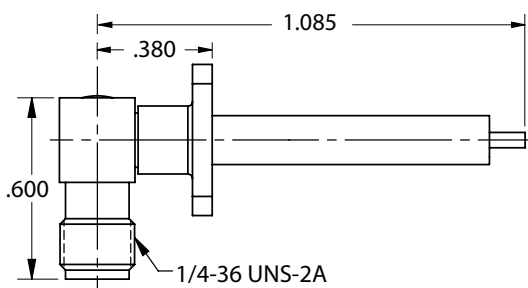
Part Number
SF2950-6200

Female Flange Mount Connector, 4 Hole (Candlestick)



Part Number
M83517/4-31005
SF2950-6061

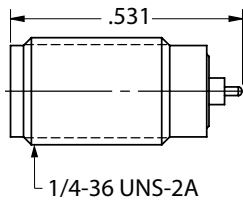
Female Flange Mount Connector, 4 Hole (Candlestick), R/A



Part Number
SF2960-6025

SMA Series

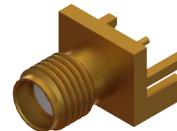
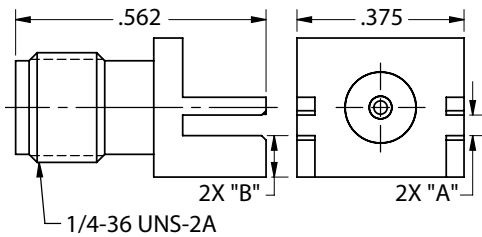
Female Sparkplug Hermetic Connector, (.018" Pin)



Part Number

[2975-6200](#)

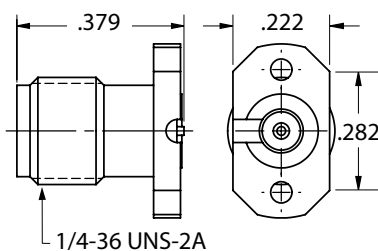
Female PCB Edge Launch Connector



Part Number	A	B
2985-6035	.068"	.073"
2985-6036	.048"	.093"
2985-6037	.037"	.104"
2985-6038	.099"	.042"

^{-TD} suffix are pre-tinned

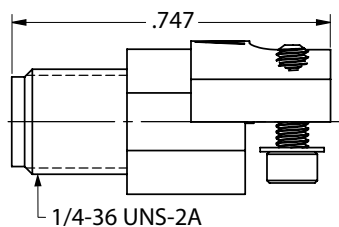
Female PCB Solderless Compression Mount Connector, 2 Hole



Part Number	Descr.
SF2921-61345	Microstrip
SF2921-61356	Stripline

^{-IS} with 4.76mm and ^{-2S} with 6.35mm screws

Female PCB Solderless Edge Launch Connector, 2 Hole

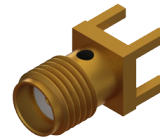
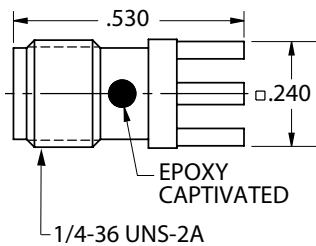


Part Number

[SF2921-61450](#)

SMA Series

Female PCB Thru-Hole Connector

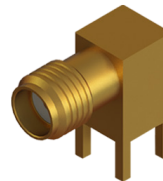
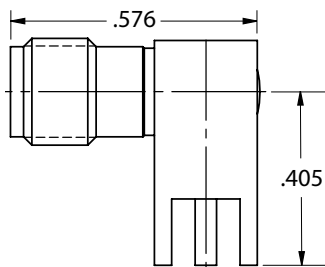


Part Number

[2985-6004](#)

“TD” suffix are pre-tinned

Female PCB Thru-Hole Connector, R/A

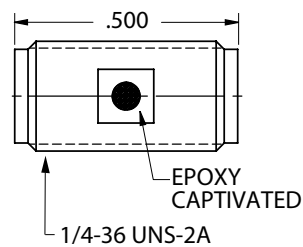


Part Number

[2986-6001](#)

“TD” suffix are pre-tinned

SMA Female to Female Adapter

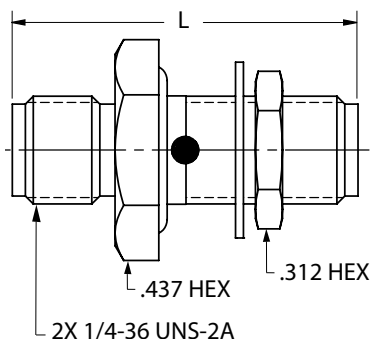


Part Number

[M55339/31-30001](#)

[SF2992-6001](#)

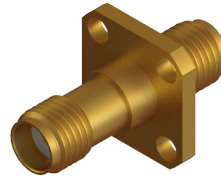
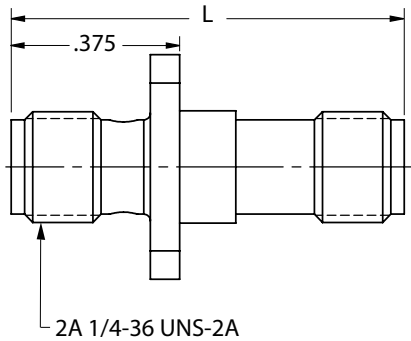
SMA Female to Female Bulkhead Adapter



Part Number	L	Decr.
SF2990-6002	.790"	
SF2990-6005	.875"	
SF2991-6002	.875"	Hermetic
M55339/28-30001	.906"	Hermetic

SMA Series

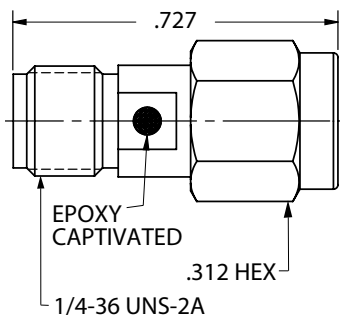
SMA Female to Female Flange Mount Adapter, 4 Hole



Part Number	L
M55339/28-30002	.725"
2991-6007	.875"
SF2991-6007	.875"

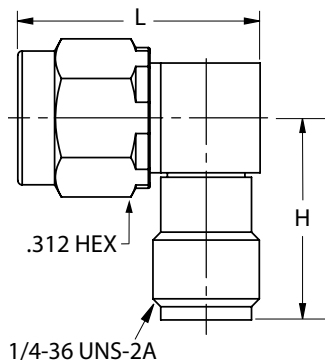
'SF' denotes passivated stainless

SMA Female to Male Adapter



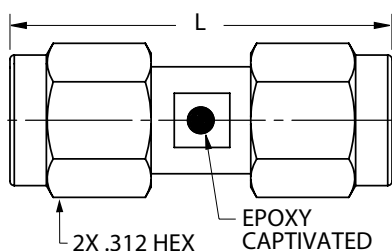
Part Number
SF2997-6003

SMA Female to Male Adapter, R/A



Part Number	L	H
M55339/02-30001	.444"	.590"
2994-6602	.552"	.585"
SF2994-6001	.635"	.640"

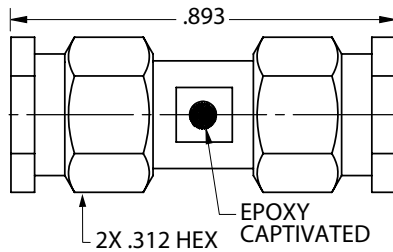
SMA Male to Male Adapter



Part Number	L
2993-6001	.875"
SF2993-6001	.875"
M55339/29-30101	.910"

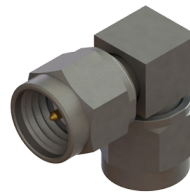
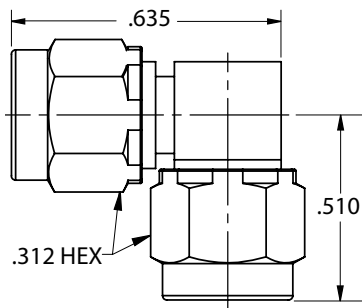
SMA Series

SMA Male to Male Adapter, Lockwire Holes



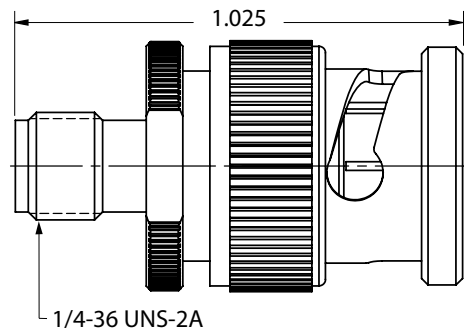
Part Number
M55339/29-30001

SMA Male to Male Adapter, R/A



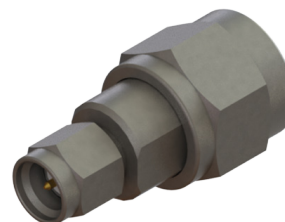
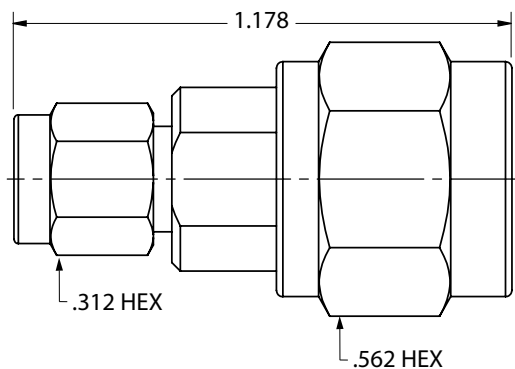
Part Number
M55339/53-30001

SMA Female to BNC Male Adapter



Part Number
M55339/44-30001

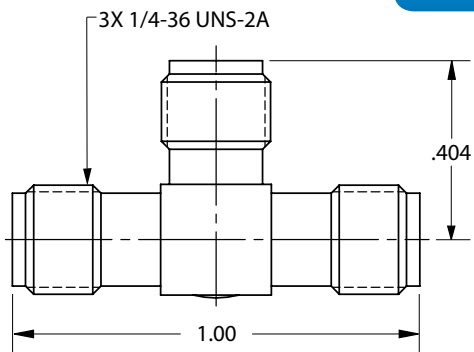
SMA Male to PTNC Male Adapter



Part Number
SF1129-6157

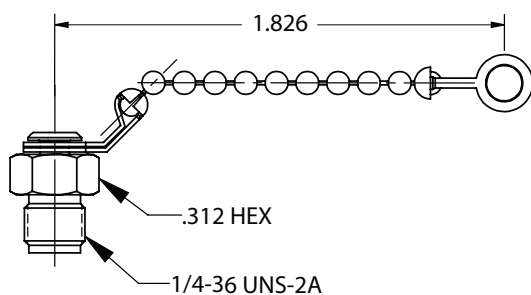
SMA Series

SMA Female to Female to Female Tee Adapter



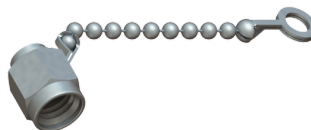
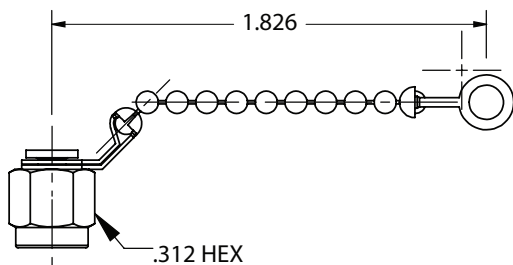
Part Number
M55339/30-30003

Female Dust Cap



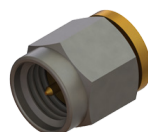
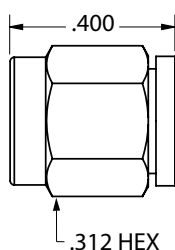
Part Number	Descr.
2921-61408	No Chain
M39012/25-3026	Bead Chain

Male Dust Cap



Part Number	Descr.
M39012/25-3024	Bead Chain
M39012/25-3025	Link Chain
M39012/25-3124	Rope Chain

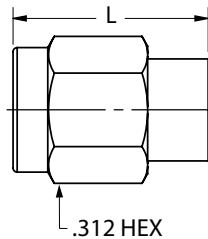
Male Short



Part Number
SF8018-6007

SMA Series

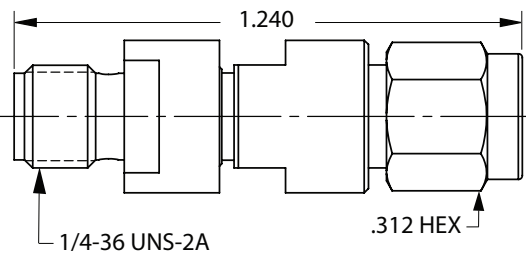
Male Termination



Part Number	L	Decr.
8018-6061	.330"	No Chain
SF8018-6061	.330"	No Chain
8018-6172	.500"	No Chain
8018-6005	.520"	No Chain
SF8018-6005	.520"	No Chain
8018-6174	.600"	Bead Chain

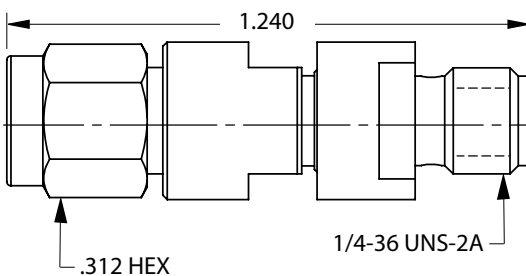
'SF' denotes passivated stainless

SMA Female to Male Attenuator, 18 GHz



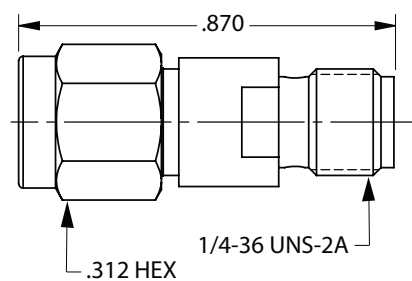
Part Number	Decr.
M3933/16-XXN	Nonscreened
M3933/16-XXS	Screened

SMA Male to Female Attenuator, 12.4 GHz



Part Number	Decr.
M3933/14-XXN	Nonscreened
M3933/14-XXS	Screened

SMA Male to Female Attenuator, 18 GHz



Part Number	Decr.
M3933/25-XXN	Nonscreened
M3933/25-XXS	Screened
SF0929-6200-XX	
SF0930-6200-XX	

2.92mm Series

2.92mm Interface at a Glance

The 2.92mm connector was developed for use to 40 GHz. The male pin is shorter than that of an SMA or 3.5mm to ensure that the outer contacts of the male and female connectors engage before the pin and female receptacle do. This ensures that the pin and socket will not see excessive wear and mating stress seen by misalignment in an SMA or 3.5mm connector. The 2.92mm connector also has a thicker wall than a standard SMA. The 2.92mm series mates with SMA and 3.5mm connectors.

Electrical Specifications

Impedance	50Ω
Frequency	40 GHz
VSWR	1.03 + .005 f
Insertion Loss	.04 √ f
Shielding Effectiveness	≥ 100 dB

Mechanical Specifications

Mating Cycles	500
Mating Torque	7 - 10 in - lbs
Inter-mate ability	SMA, 3.5mm

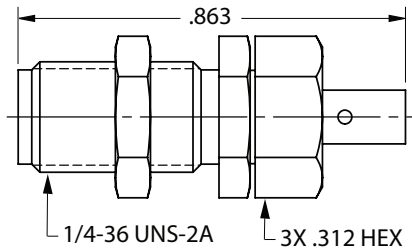
Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +125°C
Moisture Resistance	MIL-STD-202, Method 106, Less Step 7B
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

Note: Specifications, dimensions and images are typical for the series and may vary by part number

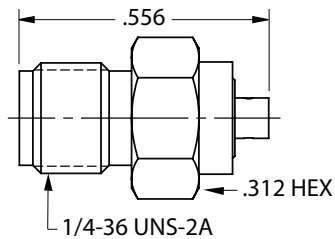
2.92mm Series

Female Bulkhead Cable Connector



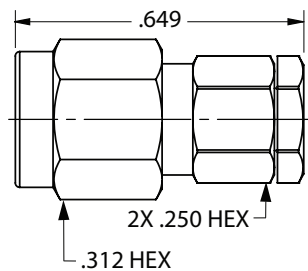
Cable	Part Number
0.085	SF1521-60025

Female Cable Connector



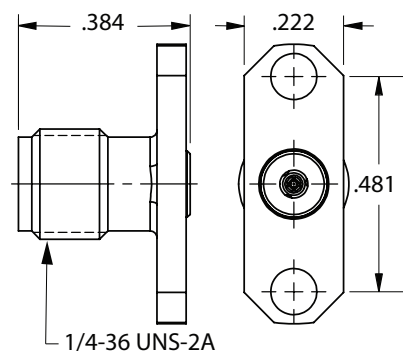
Cable	Part Number
0.047	SF1521-60039
0.085	SF1521-60077

Male Cable Connector



Cable	Part Number
0.047	SF1511-60069
0.085	SF1511-60071
0.141	SF1511-60044

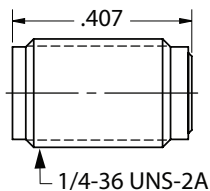
Female Flange Mount Connector, 2 Hole (Accepts Ø.012" Pin)



Part Number
SF1552-6002

2.92mm Series

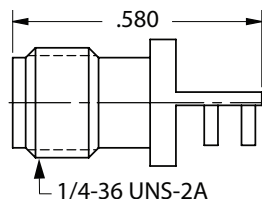
Female Sparkplug Connector, Accepts Ø.012" Pin



Part Number

[SF1575-6007](#)

Female Edge Launch Connector, 4 Leg

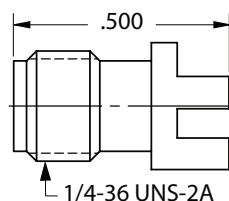


Part Number

1521-00002

'TD' suffix are pre-tinned

Female PCB Edge Launch Connector, .062" PCB Thickness

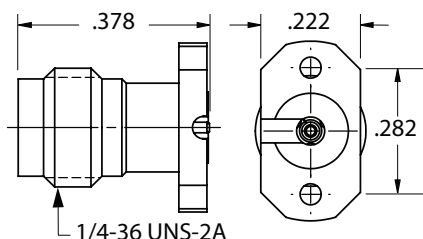


Part Number

[1521-60051](#)

'TD' suffix are pre-tinned

Female PCB Solderless Compression Mount Connector, 2 Hole

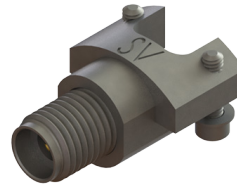
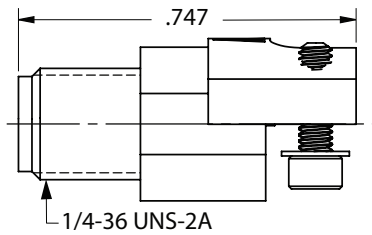


Part Number	Descr.
SF1521-60061	Stripline
SF1521-60070	Microstrip

'-1S' with 4.76mm and '-2S' with 6.35mm screws

2.92mm Series

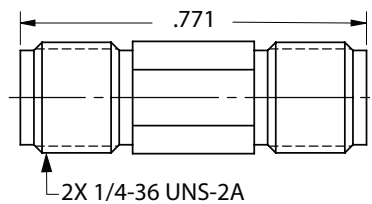
Female PCB Solderless Edge Mount Connector, 2 Hole



Part Number

[SF1521-60107](#)

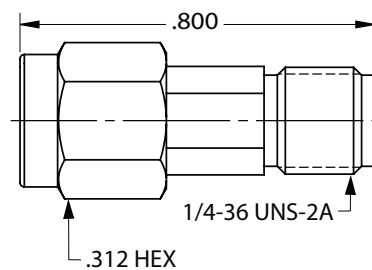
2.92mm Female to Female Adapter



Part Number

[SF1590-6000](#)

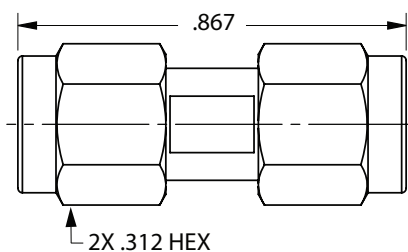
2.92mm Male to Female Adapter



Part Number

[SF1597-6003](#)

2.92mm Male to Male Adapter

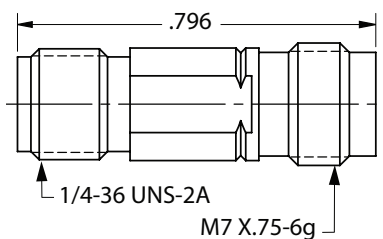


Part Number

[SF1593-6000](#)

2.92mm Series

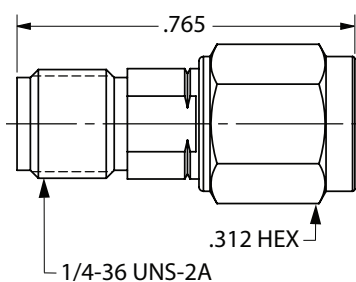
2.92mm Female to 2.4mm Female Adapter



Part Number

[SF1116-6004](#)

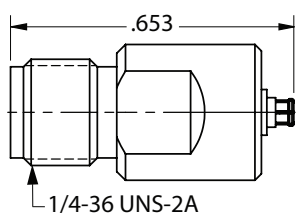
2.92mm Female to 2.4mm Male Adapter



Part Number

[SF1116-6002](#)

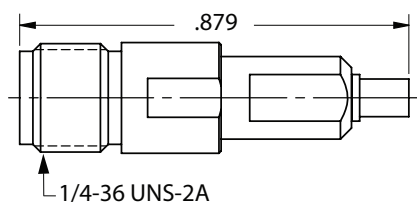
2.92mm Female to SMPS Female Adapter



Part Number

[1138-6009](#)

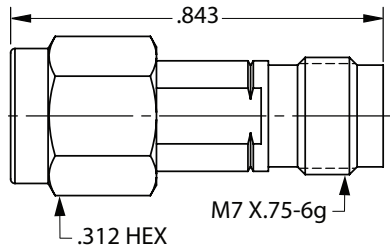
2.92mm Female to SMPS Male Adapter



Detent	Part Number
SB	SF1138-6024
FD	SF1138-6015

2.92mm Series

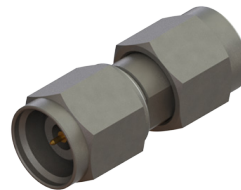
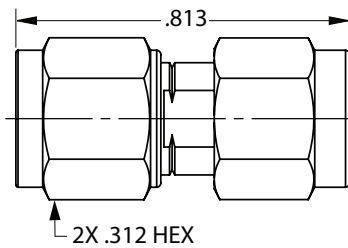
2.92mm Male to 2.4mm Female Adapter



Part Number

[SF1116-6003](#)

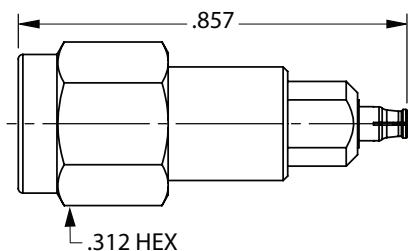
2.92mm Male to 2.4mm Male Adapter



Part Number

[SF1116-6007](#)

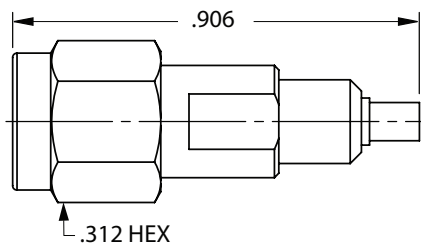
2.92mm Male to SMPS Female Adapter



Part Number

[SF1115-6091](#)

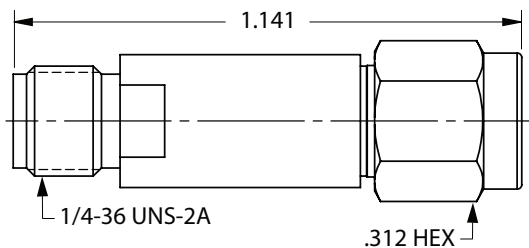
2.92mm Male to SMPS Male Adapter



Detent	Part Number
SB	SF1115-6090
FD	SF1115-6089

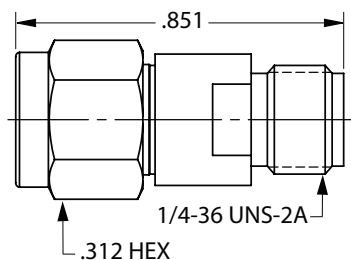
2.92mm Series

2.92mm Female to Male Attenuator, 32 GHz



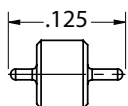
Part Number	Descr.
M3933/30-XXN	Nonscreened
M3933/30-XXS	Screened

2.92mm Male to Female Attenuator, 40 GHz



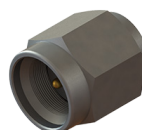
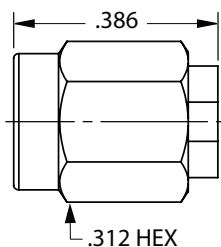
Part Number
SF0915-6200-XX

Feed-Thru Hermetic Seal, Accepts Ø.012" Pin



Part Number
066-15-000

Male Termination



Part Number
SF8015-6002

2.4mm Interface at a Glance

The 2.4mm connector was developed for use to 50 GHz. This connector series uses a thick outer wall to eliminate the fragility seen in SMA and 2.92mm connectors. The female socket is also strengthened to ensure reliable mating. The 2.4mm series mates with SMA, 3.5mm and 2.92mm connectors with adapters and can mate with the 1.85mm series without adapters.

Electrical Specifications

Impedance	50Ω
Frequency	50 GHz
VSWR	1.03 + .005 f
Insertion Loss	.04 √ f
Shielding Effectiveness	≥ 100 dB

Mechanical Specifications

Mating Cycles	500
Recommended Torque	5 - 7 in - lbs
Inter-mate ability	1.85mm

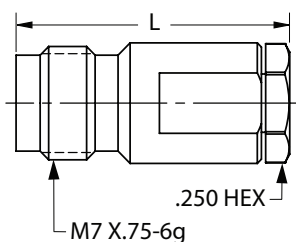
Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107, Cond. B, -65°C to +125°C
Moisture Resistance	MIL-STD-202, Method 106, Less Step 7B
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

Note: Specifications, dimensions and images are typical for the series and may vary by part number

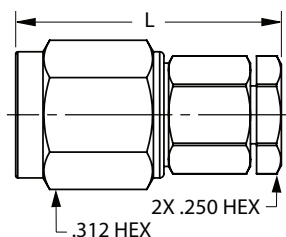
2.4mm Series

Female Cable Connector



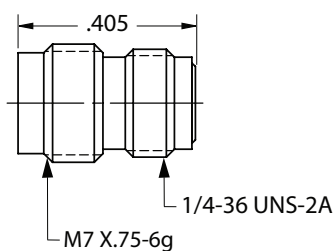
Cable	Part Number	L
0.047	SF1621-60014	.671"
0.085	SF1621-60009	.679"

Male Cable Connector



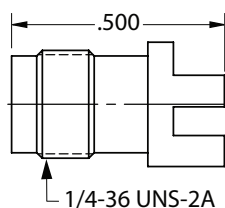
Cable	Part Number	L
0.047	SF1611-60001	.633"
0.085	SF1611-60003	.580"

Female Sparkplug Connector, Accepts Ø.008" Pin



Part Number
SF1675-6004

Female PCB Edge Launch Connector, .062" PCB Thickness

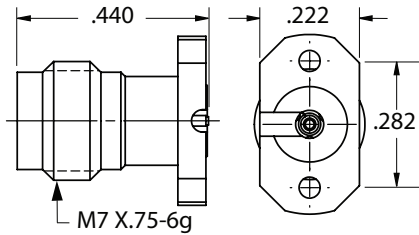


Part Number
1621-60008

¹TD' suffix are pre-tinned

2.4mm Series

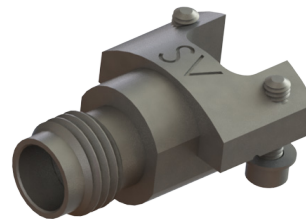
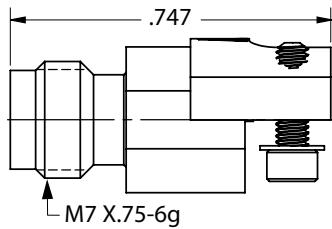
Female PCB Solderless Compression Mount Connector, 2 Hole



Part Number	Descr.
SF1621-60026	Microstrip
SF1621-60029	Stripline

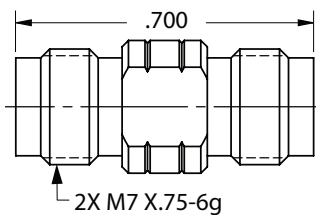
**-1S* with 4.76mm and *-2S* with 6.35mm screws*

Female PCB Solderless Edge Mount Connector, 2 Hole



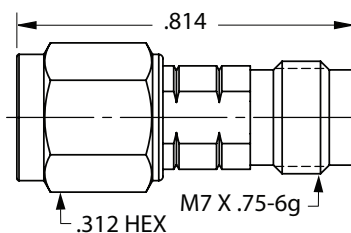
Part Number
SF1621-60036

2.4mm Female to Female Adapter



Part Number
SF1116-6053

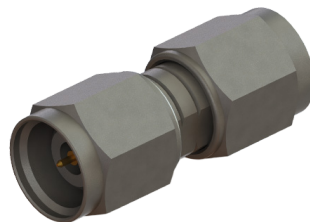
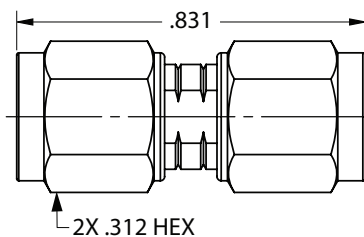
2.4mm Male to Female Adapter



Part Number
SF1116-6040

2.4mm Series

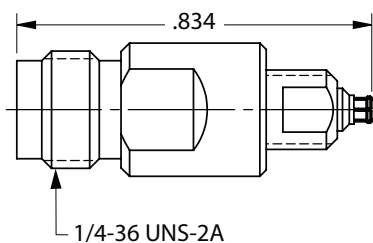
2.4mm Male to Male Adapter



Part Number

[SF1116-6039](#)

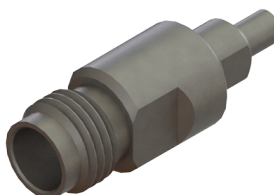
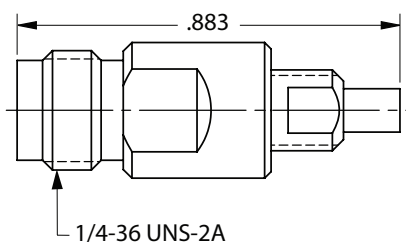
2.4mm Female to SMPS Female Adapter



Part Number

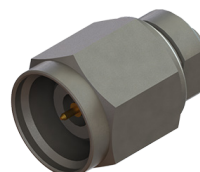
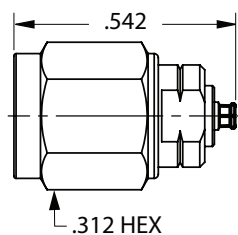
[SF1116-6022](#)

2.4mm Female to SMPS Male Adapter



Detent	Part Number
SB	SF1116-6066
FD	SF1116-6021

2.4mm Male to SMPS Female Adapter

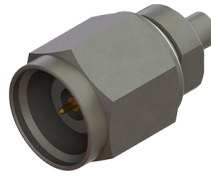
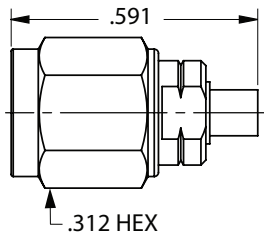


Part Number

[SF1116-6025](#)

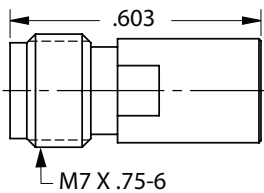
2.4mm Series

2.4mm Male to SMPS Male Adapter



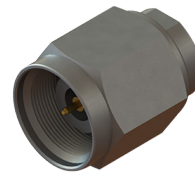
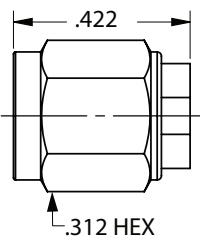
Detent	Part Number
SB	SF1116-6023
FD	SF1116-6024

Female Termination



Part Number
SF8016-6402

Male Termination



Part Number
SF8016-6404

1.85mm Series

1.85mm Interface at a Glance

The 1.85mm connector was designed for mode free operation through 65 GHz. The interface uses a mostly air-dielectric with a support bead that is set back in the body of the connector to reduce bead interaction in a mated pair. Like the 2.92mm and 2.4mm connector, the body has been designed to ensure that the outer conductors engage before the center conductors make contact. The 1.85mm interface uses an M7 thread and is compatible only with the 2.4mm interface. SV Microwave supplies adapters to mate 1.85mm connectors to SMA and 2.92mm connectors.

Electrical Specifications

Impedance	50Ω
Frequency	65 GHz
VSWR	1.03 + .005 f
Insertion Loss	.04 √ f
Shielding Effectiveness	≥ 100 dB

Mechanical Specifications

Mating Cycles	500
Mating Torque	5 - 7 in - lbs
Inter-mate ability	2.4mm

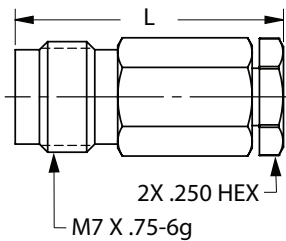
Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +125°C
Moisture Resistance	MIL-STD-202, Method 106, Less Step 7B
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

Note: Specifications, dimensions and images are typical for the series and may vary by part number

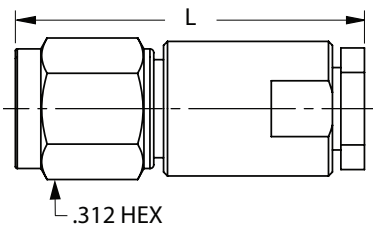
1.85mm Series

Female Cable Connector



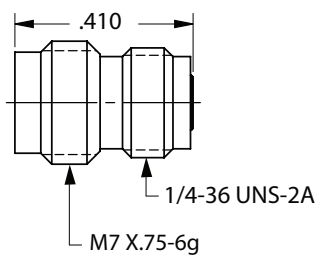
Cable	Part Number	L
0.047	SF3321-60005	.665"
0.085	SF3321-60006	.945"

Male Cable Connector



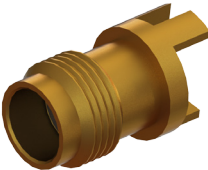
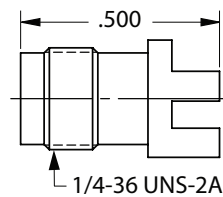
Cable	Part Number	L
0.047	SF3311-60002	.890"
0.085	SF3311-60003	.581"

Female Sparkplug Connector, Accepts Ø.008" Pin



Part Number
SF3375-6001

Female PCB Edge Launch Connector, .062" PCB Thickness



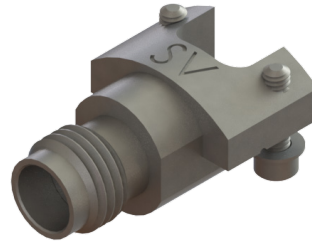
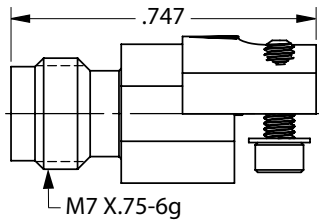
Part Number
3321-60001

¹-'TD' suffix are pre-tinned

1.85mm Series

1.85mm Series

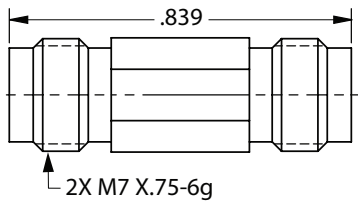
Female PCB Solderless Edge Mount Connector, 2 Hole



Part Number

SF3321-60021

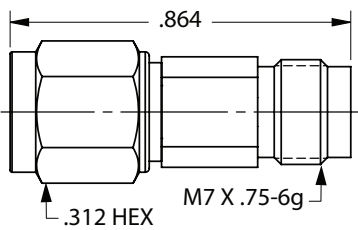
1.85mm Female to Female Adapter



Part Number

SF1133-6008

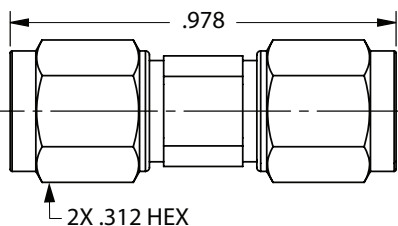
1.85mm Male to Female Adapter



Part Number

SF1133-6010

1.85mm Male to Male Adapter



Part Number

SF1133-6009

SMP Interface at a Glance

SV Microwave offers a complete line of SMP connectors that conform to DSCC 94007, 94008 and MIL-STD-348. The SMP connector was developed to meet an industry need for a smaller high frequency compact design that incorporated ease of use and functionality. The SMP bullet is the heart of this unique design.

Electrical Specifications

Impedance	50Ω
Frequency	40 GHz
VSWR	1.15:1 to 26.5 GHz typ.; 1.5:1 to 40 GHz typ.
Insertion Loss	.06 √ f
Shielding Effectiveness	≥ -80 dB DC - 3 GHz; ≥ -65 dB 3 - 26.5 GHz
Dielectric Withstanding Voltage	500 VRMS

Mechanical Specifications

	SB	LD	FD
Mating Cycles	1000	500	100
Force to Engage/Disengage	3.0 / 0.5 lbs	5.0 / 7.0 lbs	7.0 / 9.0 lbs
Axial Misalignment			.010"
Radial Misalignment			± .010"

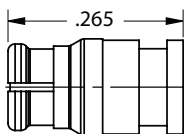
Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +165°C
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

Note: Specifications, dimensions and images are typical for the series and may vary by part number

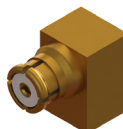
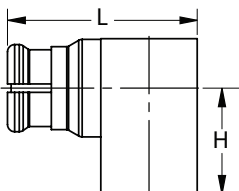
SMP Series

Female Cable Connector



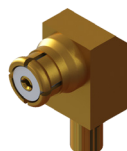
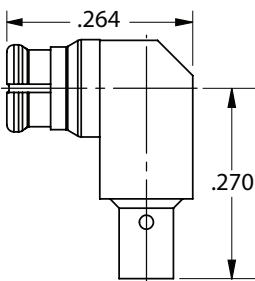
Cable	Part Number
0.047	1221-4010
0.085	1221-4009

Female Cable Connector, R/A



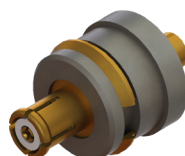
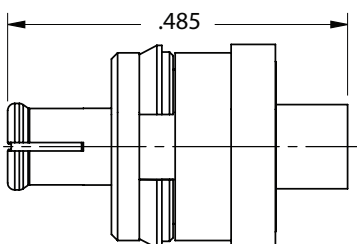
Cable	Part Number	L	H
0.047	1222-4012	.263"	.188"
0.047	1213-4007	.265"	.220"
0.085	1222-4011	.265"	.188"
0.085	1214-4001	.275"	.245"

Female Cable Connector, Swept R/A



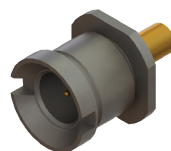
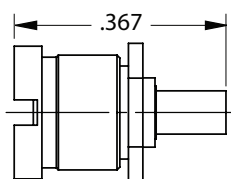
Cable	Part Number
0.047	1222-4004
0.085	1222-4005

Female Snap-In Cable Connector



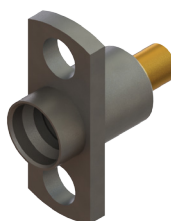
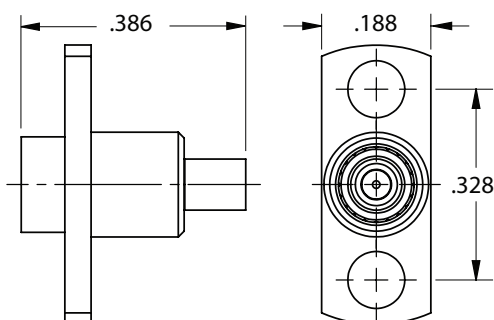
Cable	Part Number
0.047	1221-6001
0.085	1204-6000

Male Bulkhead Cable Connector



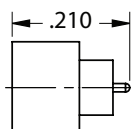
Detent	Cable	Part Number
LD	0.047	SF1211-6059
FD	0.047	SF1211-6058
CM	0.047	SF1211-6060
LD	0.085	SF1211-6062
FD	0.085	SF1211-6061
CM	0.085	SF1211-6063

Male Flange Mount Cable Connector, 2 Hole



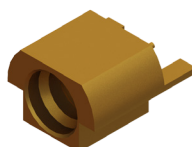
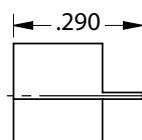
Detent	Cable	Part Number
SB	0.047	SF1211-6022
LD	0.047	SF1211-6021
FD	0.047	SF1233-6000
SB	0.085	SF1211-6023
LD	0.085	SF1211-6024
FD	0.085	SF1211-6025

Male Solder-In Hermetic Connector, (.015" Pin)



Detent	Part Number
SB	1211-6043
LD	1211-6042
FD	1211-6041

Male PCB Edge Launch Connector

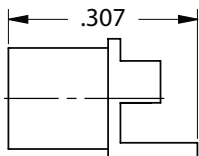


Detent	Part Number
SB	1211-66139
LD	1211-66138
FD	1211-66137
CM	1211-66175

¹TD suffix are pre-tinned

SMP Series

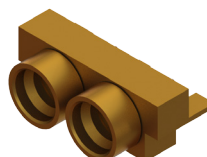
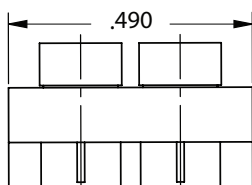
Male PCB Edge Launch Connector, .062" PCB Thickness



Detent	Part Number
SB	1285-6004
LD	1285-6003
FD	1285-6002

**TD' suffix are pre-tinned*

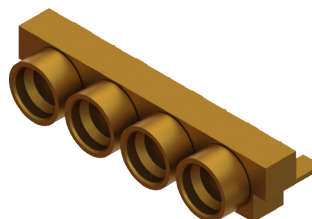
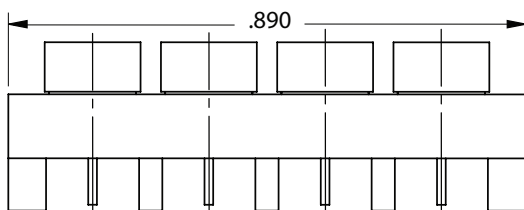
Male PCB Edge Launch Connector, 2 Port



Detent	Part Number
SB	9311-60033
LD	9311-60034
FD	9311-60035

**TD' suffix are pre-tinned*

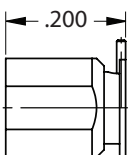
Male PCB Edge Launch Connector, 4 Port



Detent	Part Number
SB	9311-60036
LD	9311-60037
FD	9311-60038

**TD' suffix are pre-tinned*

Male PCB Surface Mount Connector, R/A

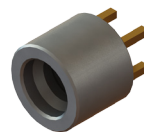
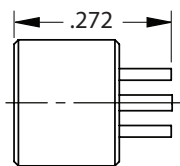


Detent	Part Number
SB	1211-40001
LD	1211-40004
FD	1211-40003

**TD' suffix are pre-tinned*

SMP Series

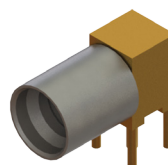
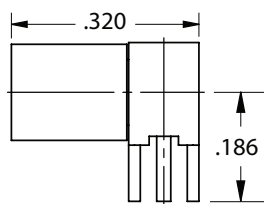
Male PCB Thru-Hole Connector



Detent	Part Number
SB	SF1211-6045
LD	SF1211-6044
FD	SF1287-6001

**TD' suffix are pre-tinned*

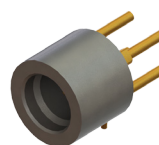
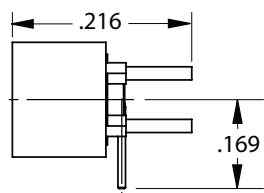
Male PCB Thru-Hole Connector, R/A



Detent	Part Number
SB	SF1212-6002
LD	SF1212-6001
FD	SF1212-6000

**TD' suffix are pre-tinned*

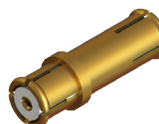
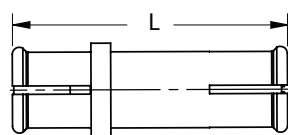
Male PCB Thru-Hole Connector, R/A Contact



Detent	Part Number
SB	SF1211-66303
LD	SF1211-66198
FD	SF1211-66199

**TD' suffix are pre-tinned*

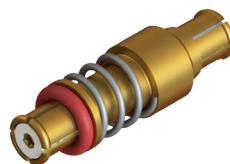
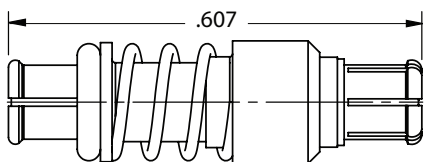
SMP Female to Female Adapter



Part Number	L
1290-4008	.255"
1290-4009	.395"
1290-4007	.769"

SMP Series

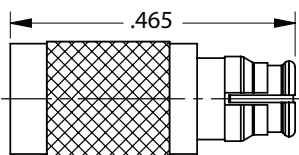
SMP Female to Female Adapter, Spring Loaded



Part Number

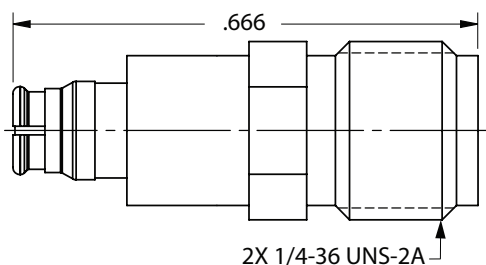
[1112-4019](#)

SMP Male to Female Adapter



Detent	Part Number
SB	1112-4012
LD	1112-4011
FD	1112-4009

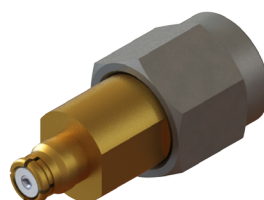
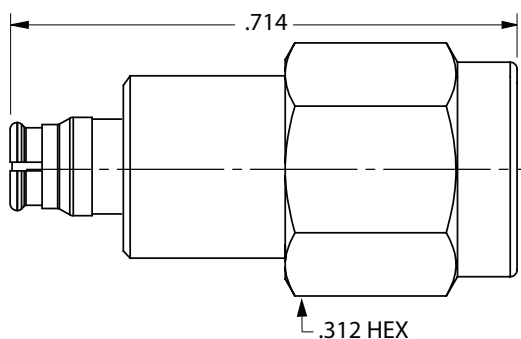
SMP Female to 2.92mm Female Adapter



Part Number

[1115-6083](#)

SMP Female to 2.92mm Male Adapter

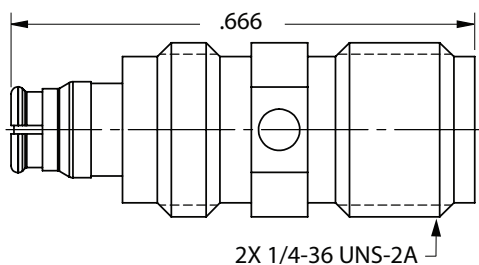


Part Number

[SF1115-6082](#)

SMP Series

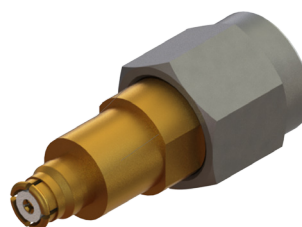
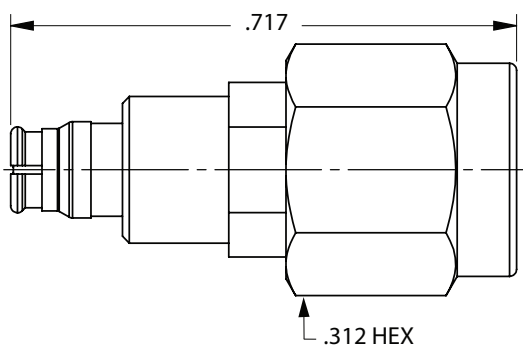
SMP Female to SMA Female Adapter



Part Number

[1112-4018](#)

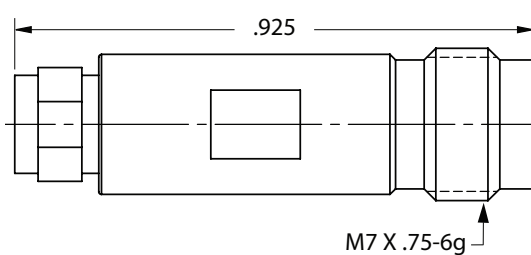
SMP Female to SMA Male Adapter



Part Number

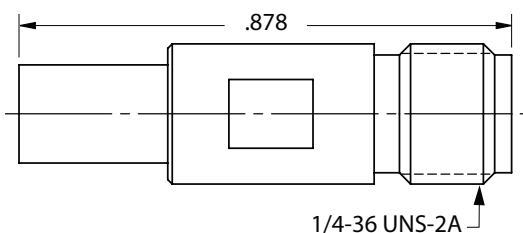
[SF1129-6154](#)

SMP Male to 2.4mm Female Adapter



Detent	Part Number
SB	SF1116-6016
LD	SF1116-6048
FD	1116-6014

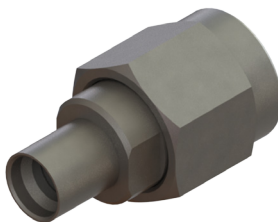
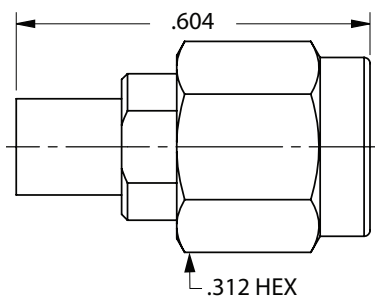
SMP Male to 2.92mm Female Adapter



Detent	Part Number
SB	SF1112-6031
LD	SF1112-6025
FD	SF1112-6122

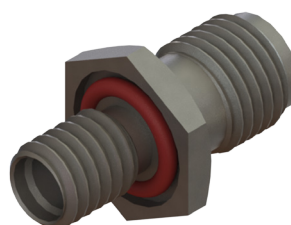
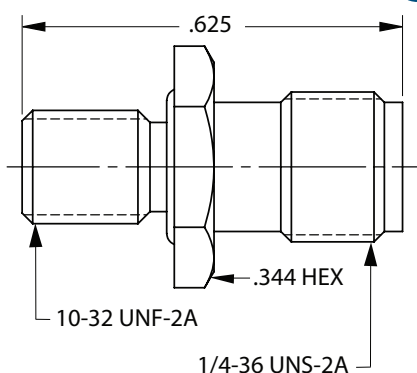
SMP Series

SMP Male to 2.92mm Male Adapter



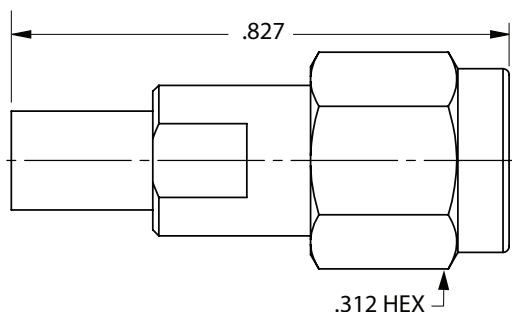
Detent	Part Number
SB	SF1115-6080
FD	SF1115-6081

SMP Male to SMA Female Panel Mount Adapter



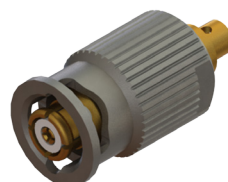
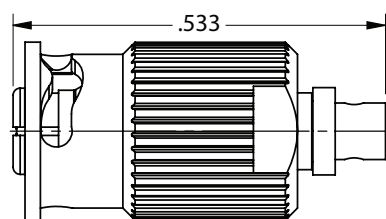
Detent	Part Number
SB	SF1112-6036
LD	SF1112-6034
FD	SF1112-6035

SMP Male to SMA Male Adapter



Detent	Part Number
FD	SF1129-6153

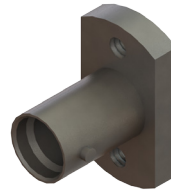
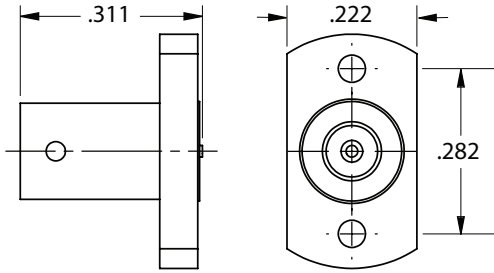
Female QB[®] Cable Connector



Cable	Part Number
0.047	1221-40051
0.085	1221-40049
0.141	1221-40050

SMP Series

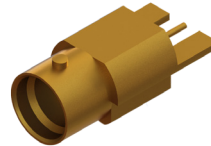
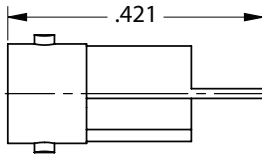
Male PCB QB Compression Mount Connector, 2 Hole



Part Number	Descr.
SF1211-66214	Stripline

**-1S* with 4.76mm and *-2S* with 6.35mm screws*

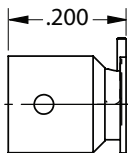
Male PCB QB® Edge Launch Connector



Part Number
1211-66195

**-TD* suffix are pre-tinned*

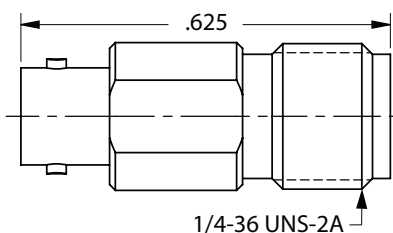
Male PCB QB® Surface Mount Connector



Part Number
1211-40032

**-TD* suffix are pre-tinned*

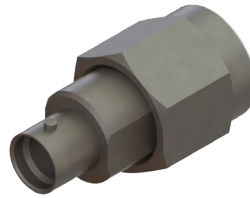
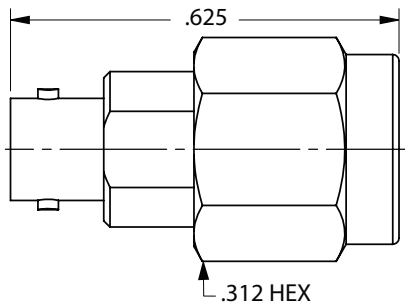
SMP Male QB to 2.92mm Female Adapter



Part Number
SF1112-6144

SMP Series

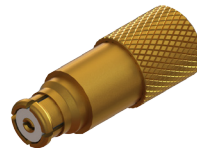
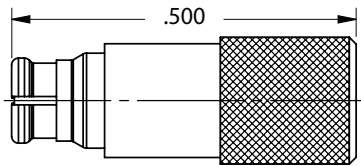
SMP Male QB to SMA Male Adapter



Part Number

[1112-6114](#)

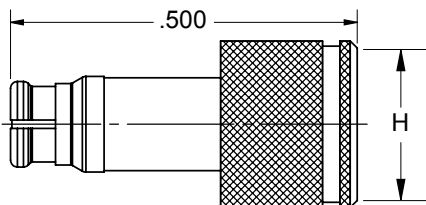
Female Short



Part Number

[8012-4008](#)

Female Termination



Part Number

[8012-4006](#)

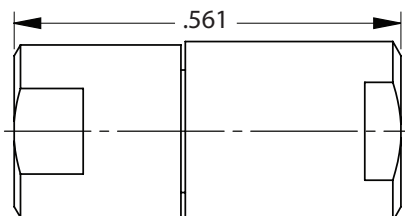
[8012-4013](#)

H

.187"

.245"

Male Termination



Detent Part Number

SB [SF8012-6102](#)

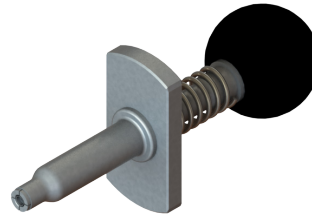
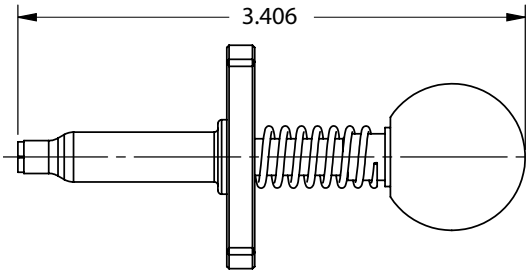
LD [SF8012-6101](#)

FD [SF8012-6009](#)

CM [SF8012-6103](#)

SMP Series

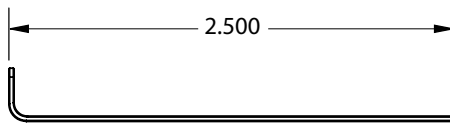
Female Bullet Removal Tool



Part Number

[500-12-000](#)

Female Cable Removal Tool



Part Number

[500-12-019](#)

SMPM Interface at a Glance

SV Microwave offers a complete line of SMPM connectors. The SMPM connector was developed to improve on the application density and operating frequency range of the SMP connector. The SMPM connector is widely used in high density, high performance applications today.

Electrical Specifications

Impedance	50Ω
Frequency	65 GHz
VSWR	1.10:1 to 26.5 GHz typ.; 1.30:1 to 50 GHz typ.
Insertion Loss	.07 √ f
Shielding Effectiveness	≥ -80 dB typ.
Dielectric Withstanding Voltage	325 VRMS

Mechanical Specifications

	SB	FD
Mating Cycles	500	100
Force to Engage/Disengage	2.5 / 1.5 lbs	4.5 / 6.5 lbs
Axial Misalignment		.010"
Radial Misalignment		± .010"

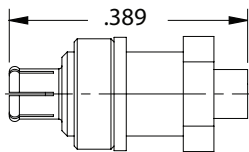
Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +165°C
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

Note: Specifications, dimensions and images are typical for the series and may vary by part number

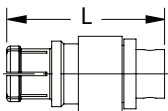
SMPM Series

Female Bulkhead Cable Connector



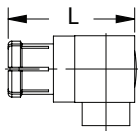
Cable	Part Number
0.047	3221-40011
0.085	3221-4000

Female Cable Connector



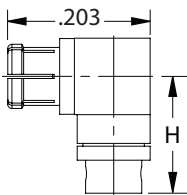
Cable	Part Number	L
0.047	3221-40007	.260"
0.085	3221-40006	.285"

Female Cable Connector, R/A



Cable	Part Number	L
0.047	3269-4001	.207"
0.085	3222-40002	.274"

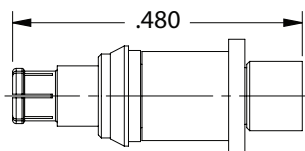
Female Cable Connector, Swept R/A



Cable	Part Number	H
0.047	3222-40006	.221"
0.085	3222-40005	.316"

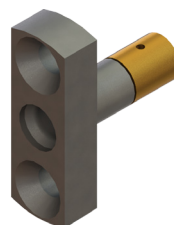
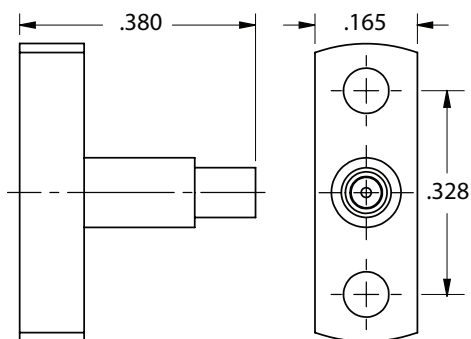
SMPM Series

Female Snap-In Cable Connector



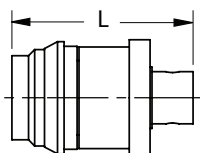
Cable	Part Number
0.085	3221-40010

Male Flange Mount Cable Connector, 2 Hole



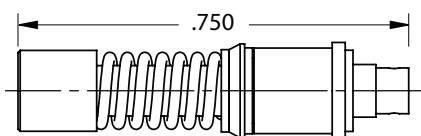
Detent	Cable	Part Number
SB	0.047	SF3211-60024
FD	0.047	SF3211-60025
SB	0.085	SF3211-60000
FD	0.085	SF3211-60013

Male Snap-In Cable Connector



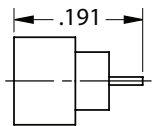
Detent	Cable	Part Number	L
SB	0.047	3211-40003	.278"
FD	0.047	3202-6000	.278"
SB	0.085	3211-40005	.302"
FD	0.085	3211-40004	.302"

Male Snap-In Float Mount Cable Connector



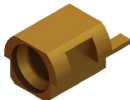
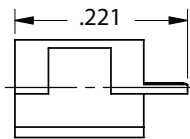
Cable	Part Number
0.047	SF3202-6001

Male Solder-In Hermetic Connector, (.012" Pin)



Detent	Part Number
SB	3211-60028
FD	3211-60027

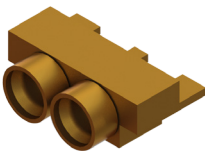
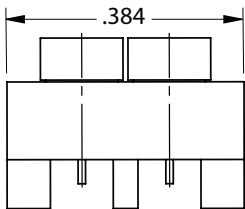
Male PCB Edge Launch Connector



Detent	Part Number
SB	3211-60035
FD	3285-6001

TD suffix are pre-tinned

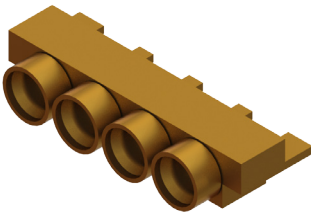
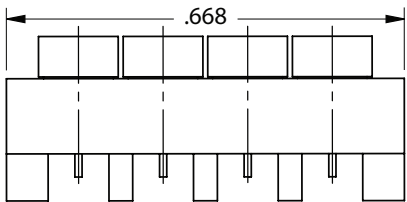
Male PCB Edge Launch Connector, 2 Port



Detent	Part Number
SB	3211-60086
FD	3211-60087

TD suffix are pre-tinned

Male PCB Edge Launch Connector, 4 Port

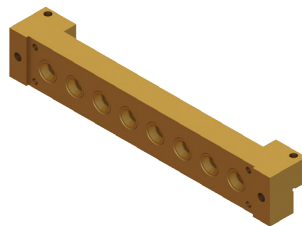
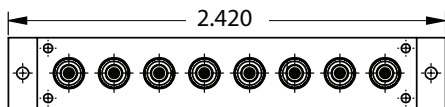


Detent	Part Number
SB	9311-60015
FD	9311-60039

TD suffix are pre-tinned

SMPM Series

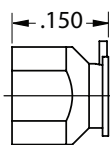
Male PCB Edge Launch Connector, 8 Port



Detent	Part Number
FD	3211-60181
CM	3211-60180

'TD' suffix are pre-tinned

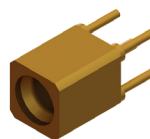
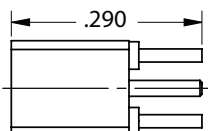
Male PCB Surface Mount Connector, R/A



Detent	Part Number
SB	3287-6101
FD	3287-6100

'TD' suffix are pre-tinned

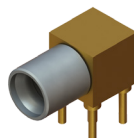
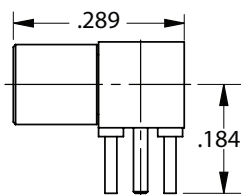
Male PCB Thru-Hole Connector



Detent	Part Number
SB	3287-4101
FD	3287-4100

'TD' suffix are pre-tinned

Male PCB Thru-Hole Connector, R/A

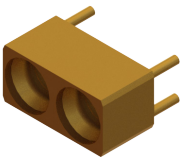
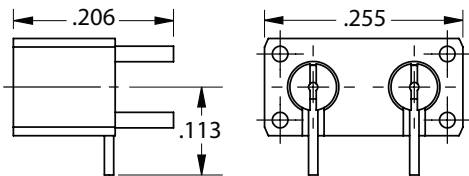


Detent	Part Number
SB	3212-40003
FD	3212-40002

'TD' suffix are pre-tinned

SMPM Series

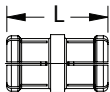
Male PCB Thru-Hole Connector, R/A, 2 Port



Detent	Part Number
FD	3211-40024

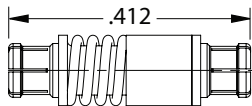
'TD' suffix are pre-tinned

SMPM Female to Female Adapter



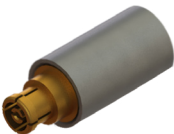
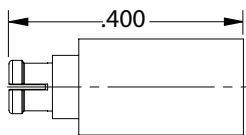
Part Number	L
1132-4010	.166"
1132-4021	.180"
3290-4002	.211"
3290-4003	.327"

SMPM Female to Female Adapter, Spring Loaded



Part Number
1132-4006

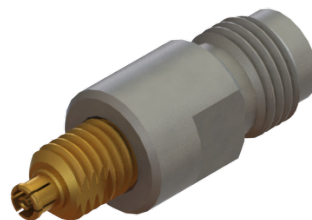
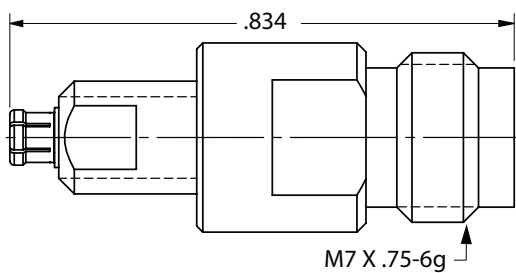
SMPM Male to Female Adapter



Detent	Part Number
SB	1132-4005

SMPM Series

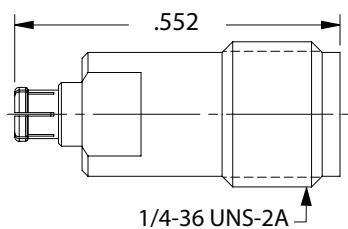
SMPM Female to 1.85mm Female Adapter



Part Number

SF1133-6007

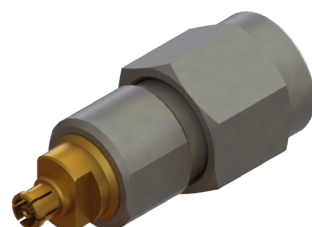
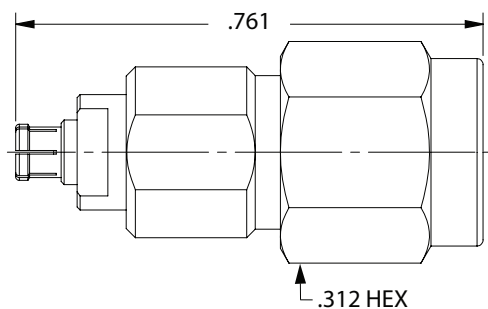
SMPM Female to 2.92mm Female Adapter



Part Number

1115-6088

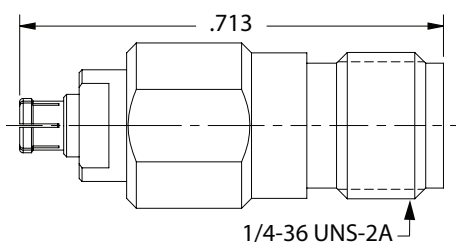
SMPM Female to 2.92mm Male Adapter



Part Number

SF1115-6085

SMPM Female to SMA Female Thread-In Adapter

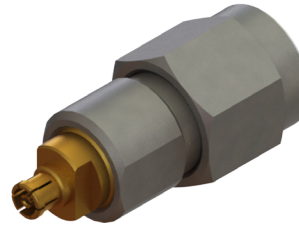
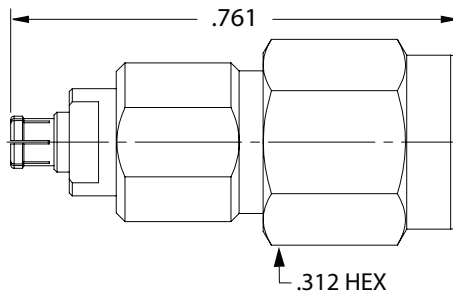


Part Number

1132-6025

SMPM Series

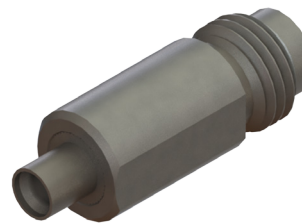
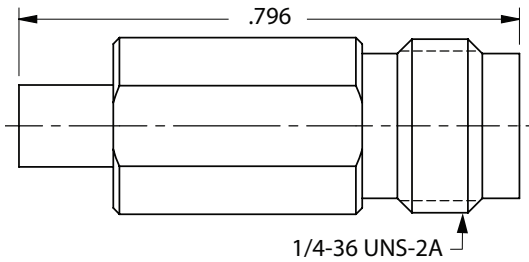
SMPM Female to SMA Male Thread-In Adapter



Part Number

1132-4003

SMPM Male to 1.85mm Female Adapter

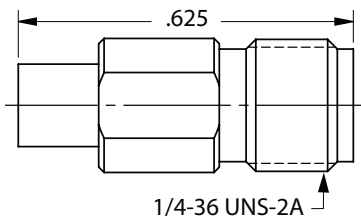


Detent Part Number

SB [SF1132-6070](#)

FD [SF1132-6069](#)

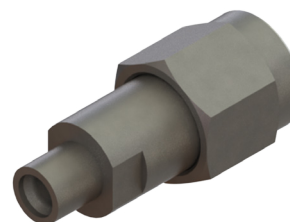
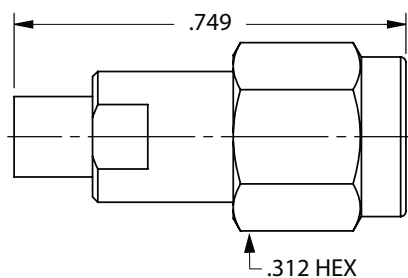
SMPM Male to 2.92mm Female Adapter



Detent Part Number

FD [SF1115-6084](#)

SMPM Male to 2.92mm Male Adapter



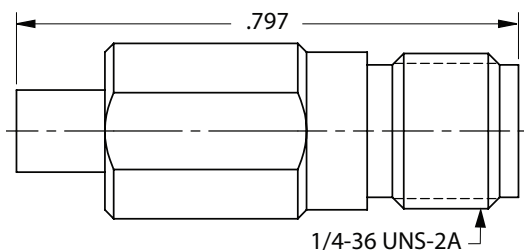
Detent Part Number

SB [SF1115-6087](#)

FD [SF1115-6086](#)

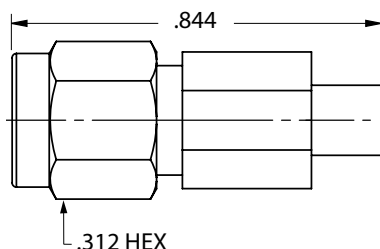
SMPM Series

SMPM Male to SMA Female Adapter



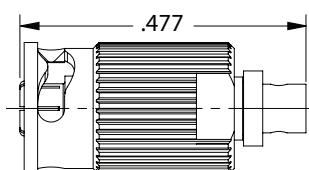
Detent	Part Number
SB	SF1132-6026
FD	SF1132-6027

SMPM Male to SMA Male Adapter



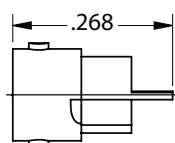
Detent	Part Number
SB	SF1080-6004
FD	SF1080-6005

Female QB® Cable Connector



Cable	Part Number
0.047	3221-60003
0.085	3221-60004

Male PCB QB® Edge Launch Connector

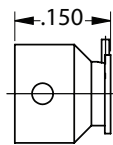


Detent	Part Number
SB	3211-60118

**TD' suffix are pre-tinned*

SMPM Series

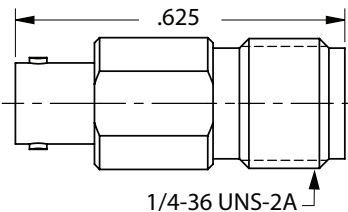
Male PCB QB[®] Surface Mount Connector, R/A



Part Number
3211-60112

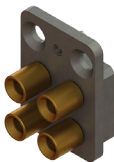
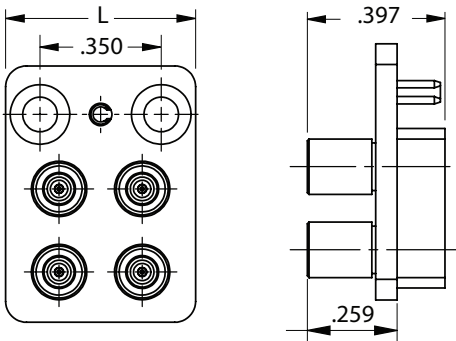
'-TD' suffix are pre-tinned

SMPM Male QB[®] to 2.92mm Female Adapter



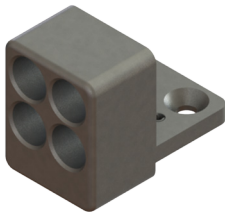
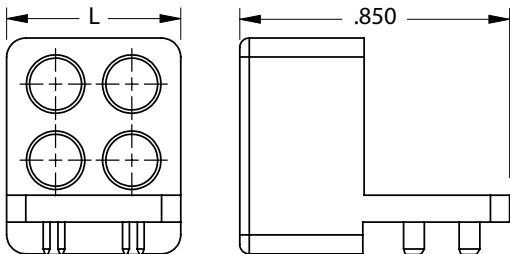
Part Number
SF1132-6078

VITA 67.1 / 67.2 Backplane Module



Part Number	L	Decr.
SF1132-6037	.548"	4 Position, 67.1
SF1132-6036	1.120"	8 Position, 67.2

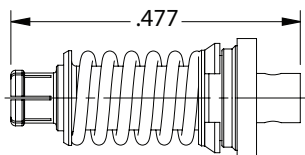
VITA 67.1 / 67.2 Plug-In Module



Part Number	L	Decr.
SF9321-60015	.548"	4 Position, 67.1
SF9321-60013	1.120"	8 Position, 67.2

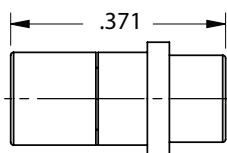
SMPM Series

VITA 67.1 / 67.2 Plug-In Contact



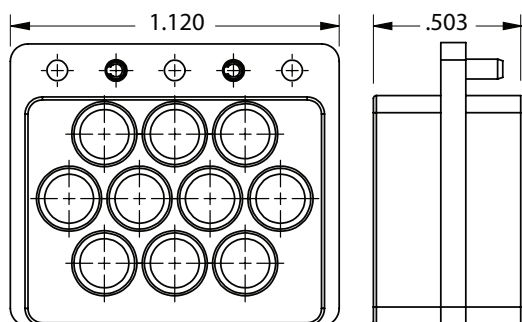
Cable	Part Number
0.047	3221-40019
0.085	3221-40022

SMPM Male to Male VITA 67.3 Plug-In Contact Adapter



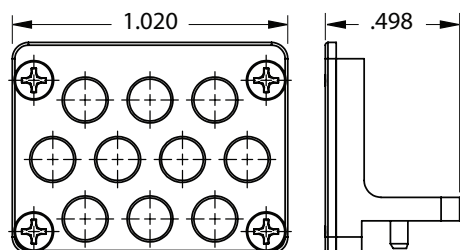
Part Number
SF1132-6067

VITA 67.3C 10-Position Backplane Module



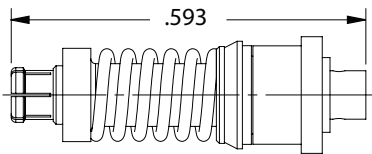
Part Number	Descr.
SF9321-60059	10 Position, 67.3

VITA 67.3C 10-Position Plug-In Module



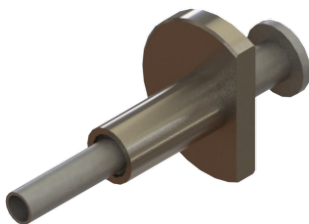
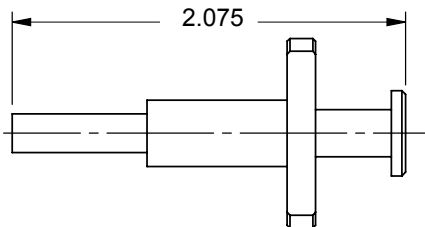
Part Number	Descr.
SF9311-60097	10 Position, 67.3

VITA 67.3 Backplane Contact, Floating



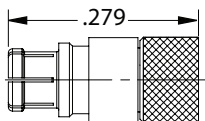
Cable	Part Number
0.047	3221-40071
0.085	3221-40066

Female VITA Contact Removal Tool



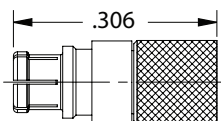
Part Number	Descr.
500-32-015	VITA 67.3
500-32-022	VITA 67.1 / 67.2

Female Short



Part Number
8032-4007

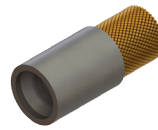
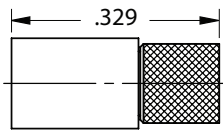
Female Termination



Part Number
8032-4003

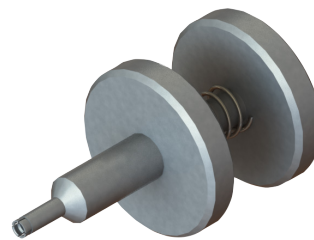
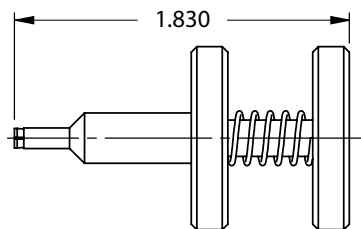
SMPM Series

Male Termination



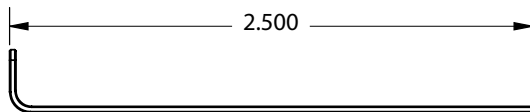
Detent	Part Number
SB	8032-6002
FD	8032-6001

Female Bullet Removal Tool



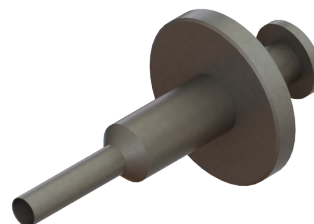
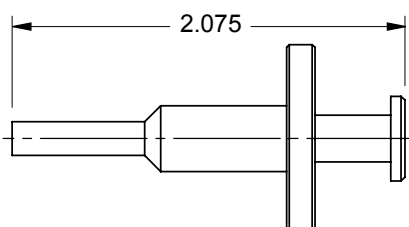
Part Number
500-32-007

Female Cable Removal Tool

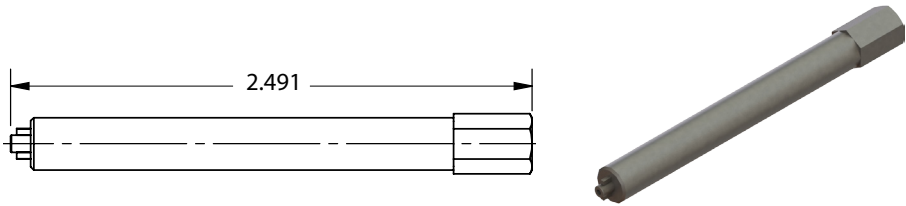


Part Number
500-32-010

Male Panel Removal Tool



Part Number
500-32-004



Detent	Part Number
FD	500-32-008
CM	500-32-009

SMPS Series

SMPS Interface at a Glance

SV Microwave offers a complete line of SMPS connectors. The SMPS connector utilizes the same great features of the SMP and SMPM connector series in an even smaller package. The SMPS series is ideal in applications where density is of the utmost importance.

Electrical Specifications

Impedance	50Ω
Frequency	100 GHz
VSWR	1.10:1 to 26.5 GHz typ.; 1.25:1 to 65 GHz typ.
Insertion Loss	.07 √ f
Shielding Effectiveness	≥ -80 dB typ.
Dielectric Withstanding Voltage	250 VRMS

Mechanical Specifications

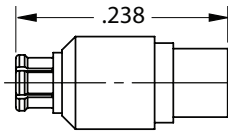
	SB	FD
Mating Cycles	500	100
Force to Engage/Disengage	1.2 / 1.0 lbs	2.5 / 4.5 lbs
Axial Misalignment		.010"
Radial Misalignment		± .010"

Environmental Specifications

Temperature Rating	-65°C to +165°C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D, 20 Gs
Shock	MIL-STD-202, Method 213, Condition I, 100 Gs
Thermal Shock	MIL-STD-202, Method 107. Cond. B, -65°C to +165°C
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.

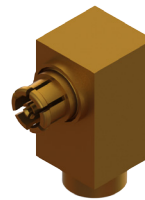
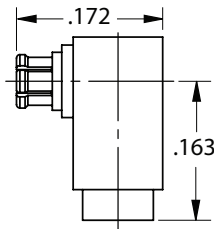
Note: Specifications, dimensions and images are typical for the series and may vary by part number

Female Cable Connector



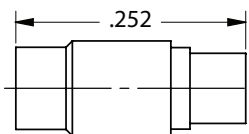
Cable	Part Number
0.047	3821-40001

Female Cable Connector, Swept R/A



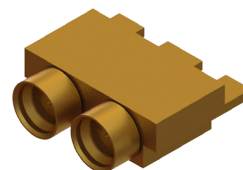
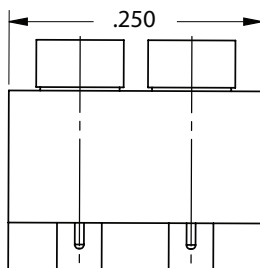
Cable	Part Number
0.047	3822-40001

Male Cable Connector



Detent	Cable	Part Number
SB	0.047	3811-40002
FD	0.047	3811-40001

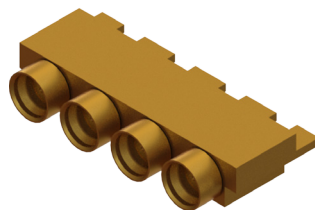
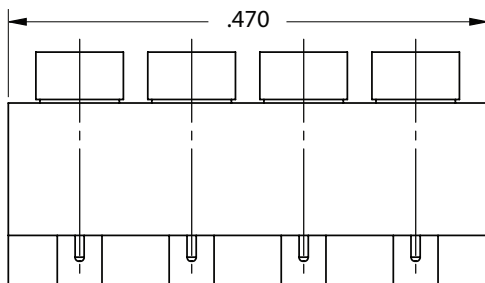
Male Edge Launch Connector, 2 Port



Detent	Part Number
SB	3811-60050
FD	3811-60049

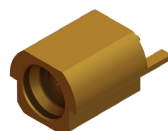
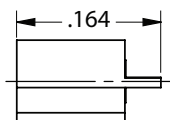
SMPS Series

Male Edge Launch Connector, 4 Port



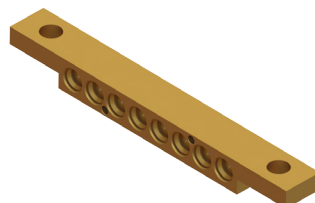
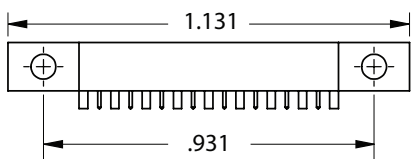
Detent	Part Number
SB	3811-60052
FD	3811-60051

Male PCB Edge Launch Connector



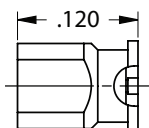
Detent	Part Number
SB	3811-40004
FD	3811-40003

Male PCB Edge Launch Connector, 8 Port



Detent	Part Number
FD	3811-60019

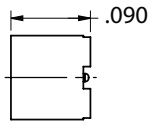
Male PCB Surface Mount Connector



Detent	Part Number
SB	3811-40023
FD	3811-40022

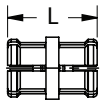
SMPS Series

Male PCB Surface Mount Hermetic Connector, (.009" Pin)



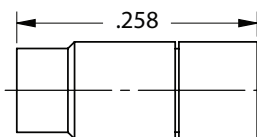
Detent	Part Number
SB	3811-60005
FD	3811-60006

SMPS Female to Female Adapter



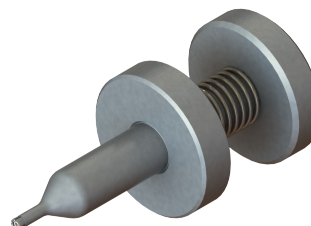
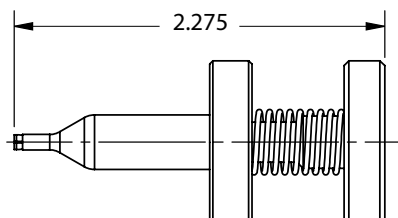
Part Number	L
1138-4001	.098"
1138-4002	.118"
1138-4003	.134"
1138-4004	.188"

Male Short



Detent	Part Number
SB	8038-6005
FD	8038-6006

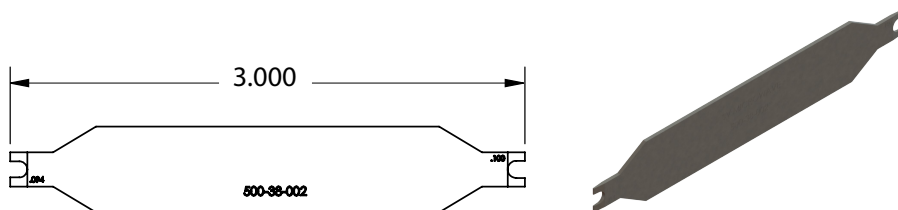
Female Bullet Removal Tool



Part Number
500-38-004

SMPS Series

Female Cable Removal Tool



Part Number

500-38-002

Female Removal Tool



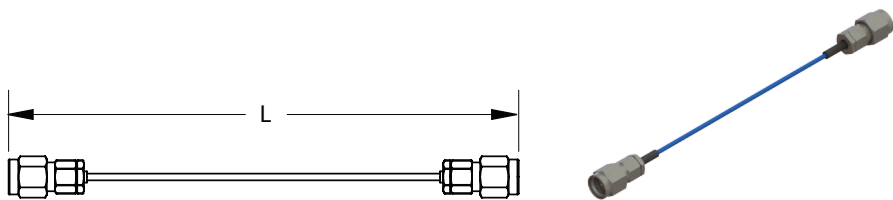
Part Number

500-38-003

Cable Assemblies

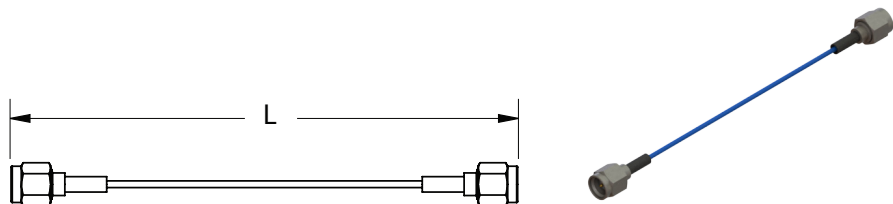
SV Microwave offers a complete line of high frequency cable assemblies utilizing coaxial cables ranging from Ø.020" to Ø.300" and larger. All of our cable technicians are J-STD certified, and we have extensive experience providing cable assemblies to the most demanding harsh environment and precision, high performance applications. Our fixed length catalog product offering represents only a small part of our total product offering and capabilities. For custom configurations including low loss, phase stable, delay/phase matched, armored, small diameter and semi-rigid (including custom bends), please contact our sales and marketing department.

2.92mm Male to 2.92mm Male Cable Assembly



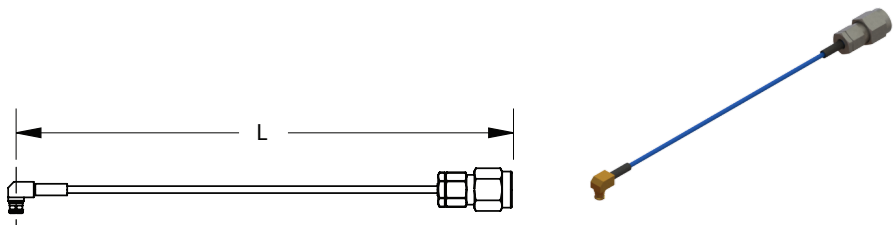
Cable	Part Number	L
0.047	7015-0717	6"
0.047	7015-0718	12"
0.047	7015-0802	24"
0.085	7015-0803	6"
0.085	7015-0615	12"
0.085	7015-0616	24"
0.085	7015-0617	36"

SMA Male to SMA Male Cable Assembly



Cable	Part Number	L
.047	7029-2555	6"
.047	7029-2556	12"
.047	7029-2557	24"
.085	7029-2552	6"
.085	7029-2553	12"
.085	7029-2554	24"

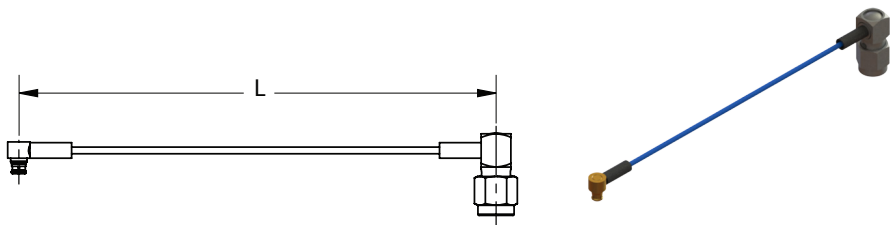
SMP Female R/A to 2.92mm Male Cable Assembly



Cable	Part Number	L
0.047	7012-1066	6"
0.047	7012-1067	12"
0.047	7012-1290	24"
0.085	7012-1287	6"
0.085	7012-1288	12"
0.085	7012-1289	24"

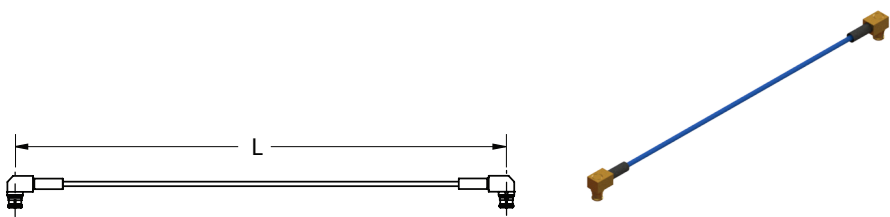
Cable Assemblies

SMP Female R/A to SMA Male R/A Cable Assembly



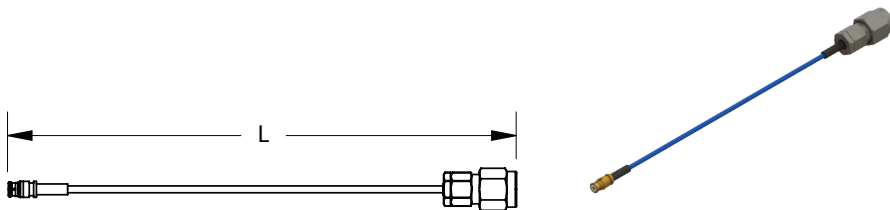
Cable	Part Number	L
.047	7012-1330	6"
.047	7012-1331	12"
.047	7012-1332	24"
.085	7012-1327	6"
.085	7012-1328	12"
.085	7012-1329	24"

SMP Female R/A to SMP Female R/A Cable Assembly



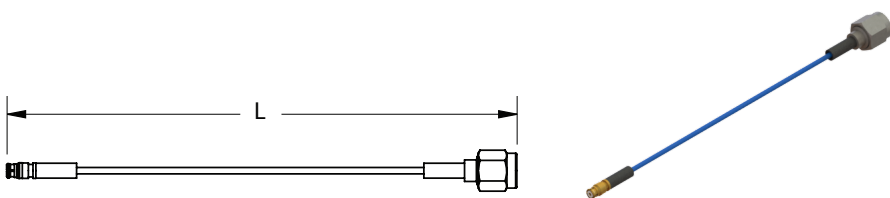
Cable	Part Number	L
0.047	7012-0802	6"
0.047	7012-0803	12"
0.047	7012-0804	24"
0.085	7012-0799	6"
0.085	7012-0800	12"
0.085	7012-0801	24"

SMP Female to 2.92mm Male Cable Assembly



Cable	Part Number	L
0.047	7012-1064	6"
0.047	7012-1065	12"
0.047	7012-1286	24"
0.085	7012-1283	6"
0.085	7012-1284	12"
0.085	7012-1285	24"

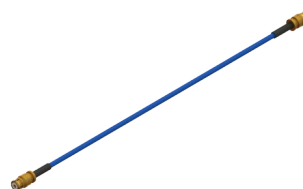
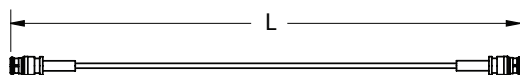
SMP Female to SMA Male Cable Assembly



Cable	Part Number	L
.047	7012-1324	6"
.047	7012-1325	12"
.047	7012-1326	24"
.085	7012-1321	6"
.085	7012-1322	12"
.085	7012-1323	24"

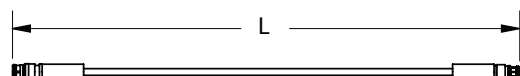
Cable Assemblies

SMP Female to SMP Female Cable Assembly



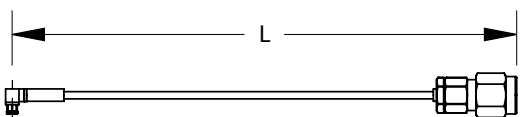
Cable	Part Number	L
0.047	7012-0796	6"
0.047	7012-0797	12"
0.047	7012-0798	24"
0.085	7012-1291	6"
0.085	7012-1292	12"
0.085	7012-1293	24"

SMP Female to SMPM Female Cable Assembly



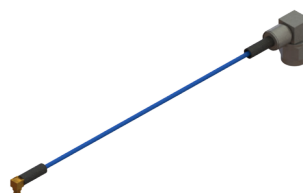
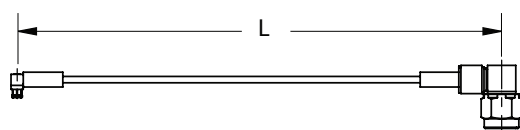
Cable	Part Number	L
0.047	7012-1294	6"
0.047	7012-1295	12"
0.047	7012-1296	24"
0.085	7012-1297	6"
0.085	7012-1298	12"
0.085	7012-1299	24"

SMPM Female R/A to 2.92mm Male Cable Assembly



Cable	Part Number	L
0.047	7032-6759	6"
0.047	7032-6760	12"
0.047	7032-7152	24"

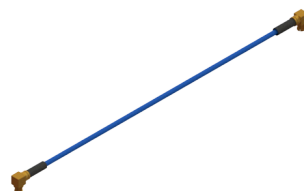
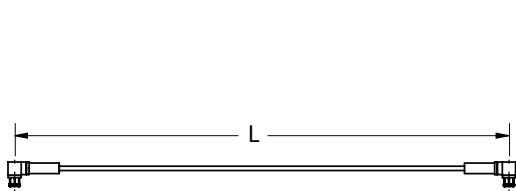
SMPM Female R/A to SMA Male R/A Cable Assembly



Cable	Part Number	L
.047	7032-7237	6"
.047	7032-7238	12"
.047	7032-7239	24"
.085	7032-7240	6"
.085	7032-7241	12"
.085	7032-7242	24"

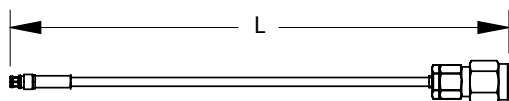
Cable Assemblies

SMMP Female R/A to SMMP Female R/A Cable Assembly



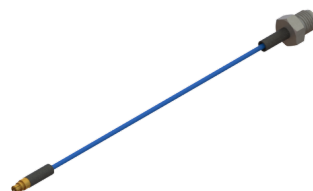
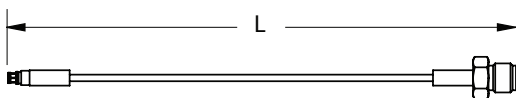
Cable	Part Number	L
0.047	7032-6354	6"
0.047	7032-6355	12"
0.047	7032-6356	24"
0.085	7032-7156	6"
0.085	7032-7157	12"
0.085	7032-7158	24"

SMMP Female to 2.92mm Male Cable Assembly



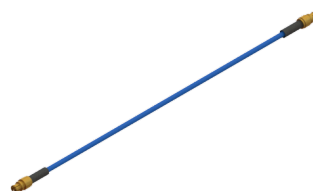
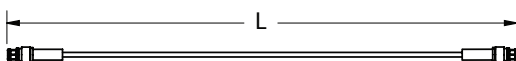
Cable	Part Number	L
0.047	7032-6757	6"
0.047	7032-6758	12"
0.047	7032-7151	24"

SMMP Female to SMA Female Cable Assembly



Cable	Part Number	L
.047	7029-2558	6"
.047	7029-2559	12"
.047	7029-2560	24"
.085	7029-2561	6"
.085	7029-2562	12"
.085	7029-2563	24"

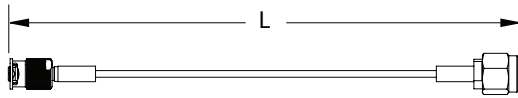
SMMP Female to SMMP Female Cable Assembly



Cable	Part Number	L
0.047	7032-6351	6"
0.047	7032-6352	12"
0.047	7032-6353	24"
0.085	7032-7153	6"
0.085	7032-7154	12"
0.085	7032-7155	24"

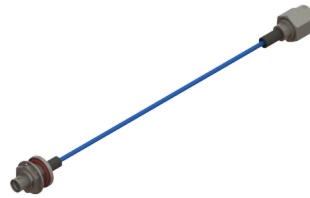
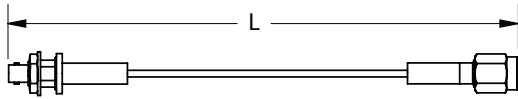
Cable Assemblies

SMP Female QB[®] to SMA Male Cable Assembly



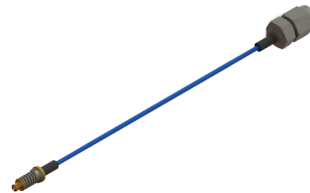
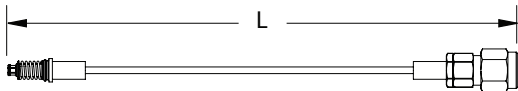
Cable	Part Number	L
0.047	7012-1301	6"
0.047	7012-1302	12"
0.047	7012-1303	24"
0.085	7012-1085	6"
0.085	7012-1084	12"
0.085	7012-1300	24"

SMP Male QB[®] Bulkhead to SMA Male Cable Assembly



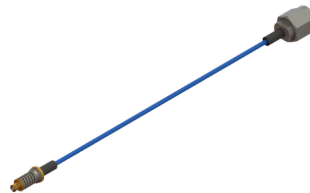
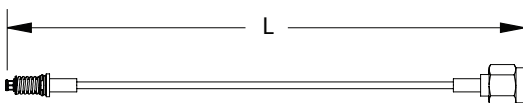
Cable	Part Number	L
0.085	7012-1086	6"
0.085	7012-1087	12"

SMMP Female VITA 67.1/67.2 to 2.92mm Male Cable Assembly



Cable	Part Number	L
0.047	7032-7159	6"
0.047	7032-7160	12"
0.047	7032-7161	24"
0.085	7032-7162	6"
0.085	7032-7163	12"
0.085	7032-7164	24"

SMMP Female VITA 67.1/67.2 to SMA Male Cable Assembly



Cable	Part Number	L
0.047	7032-6728-060	6"
0.047	7032-6728-120	12"
0.085	7032-6729-060	6"
0.085	7032-6729-120	12"

Rapid Response Cable Builder



Features & Benefits

- Now featuring our VITA 67.1 / VITA 67.2 contact!
- Most user friendly RF Cable Builder application in the market
- Choose from a variety of in-stock standard connector series and cable types with length up to 99"
- Over 125 connector and cable combinations available
- Simple part number configuration (see reverse)
- Instantly view pricing, mechanical/electrical specifications and data drawings
- Online order placement (credit card or PO)

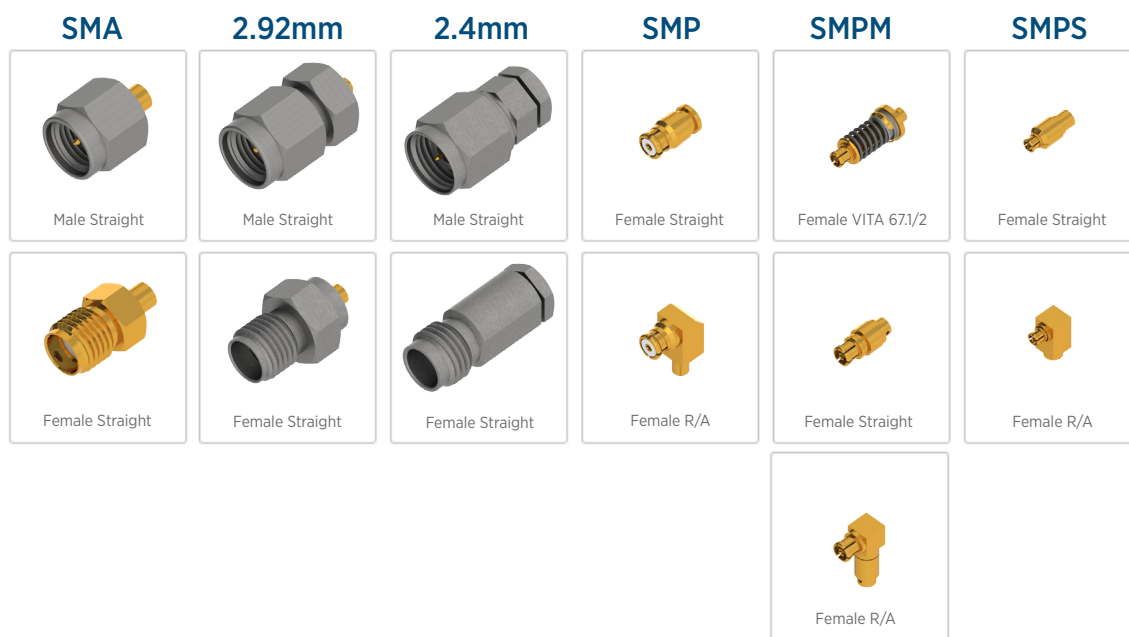
Cables Ship in 5 Days!

Applications

- Prototype builds
- Military / Aerospace
- Broadband
- Instrumentation
- Telecommunications

		2.92mm	2.4 mm	SMA	SMP	SMPM	SMPS
Cable Types	Ø.047	●	●	●	●	●	●
	Ø.085	●	●	●	●	●	●
	Ø.140	●	●				

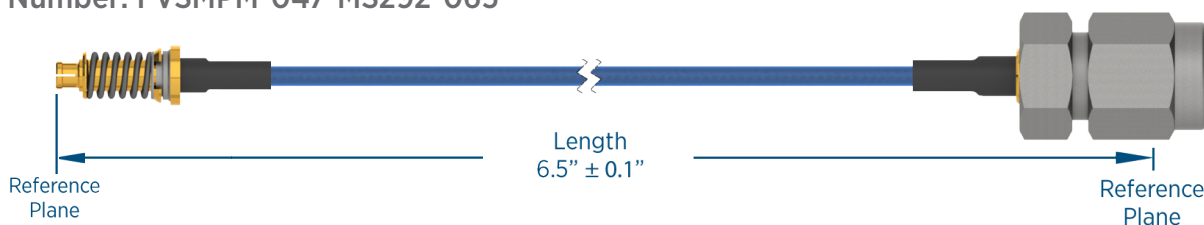
Connector Selections



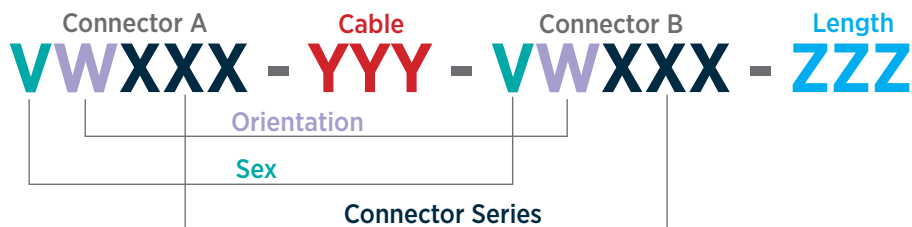
Example:

SMPM Female VITA to 2.92mm Male 6.5" Cable Assembly for Ø.047 Cable

Part Number: FVSMMPM-047-MS292-065



Rapid Response Cable Assemblies P/N Builder



- Step 1:** Select Connector A Sex
Step 2: Select Connector A Orientation
Step 3: Select Connector A Series
Step 4: Select Cable Type

- Step 5:** Select Connector B Sex
Step 6: Select Connector B Orientation
Step 7: Select Connector B Series
Step 8: Specify Cable Length (in inches)

Steps 1 & 5 Sex	
Male	M
Female	F
VITA	V

Steps 2 & 6 Orientation	
Straight	S
Right Angle	R

Step 4 Cable	
Ø.047 Cable	047
Ø.085 Cable	085
Ø.140 Cable	140

Step 8 Length			
Cable	Min	Max	
.047	3.0"	030	99.0" 990
.085	6.0"	060	99.0" 990
.140	12.0"	120	99.0" 990

Steps 3 & 7 Series	
SMA	SMA
SMP	SMP
SMPM	SMPM
SMPS	SMPS
2.92 mm	292
2.4 mm	24

Delay Match Specifications	
Min - 10"	± 2 ps
10" - Max	± 10 ps

Cable Options per Series

		Connector 2					
Connector 1	Cable	2.92 mm	2.4 mm	SMA	SMP	SMPM	SMPS
Connector 1	2.92 mm	.047	•	•	•	•	•
		.085	•	•	•	•	•
		.140	•	•	•	•	•
	2.4 mm	.047	•	•	•	•	•
		.085	•	•	•	•	•
		.140	•	•	•	•	•
	SMA	.047	•	•	•	•	•
		.085	•	•	•	•	•
	SMP	.047	•	•	•	•	•
		.085	•	•	•	•	•
	SMPM	.047	•	•	•	•	•
		.085	•	•	•	•	•
	SMPS	.047	•	•	•	•	•

Cable Tolerances			
Cable	Length Tolerance (Min - 12")	Length Tolerance (12" - Max)	Min Length Increments
.047	± 0.1"	± 0.5"	0.1"
.085	± 0.1"	± 0.5"	0.1"
.140	N/A	± 0.5"	0.1"

Example:

Description	Female VITA SMPM to Male Straight 2.92mm 6.5" Cable Assembly for Ø.047 cable						
Part Number	FV SMPM - 047 - MS 292 - 065						
Connector 1		Cable		Connector 2			
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Sex	Orientation	Series	Cable	Sex	Orientation	Series	Length
F	V	SMPM	047	M	S	292	065

SMP / SMPM / SMPS Board-to-Board Applications

SMP/SMPM/SMPS series connectors are commonly used in a shroud-bullet-shroud configuration. This configuration is ideal for applications where mating cycles are high.

Typically one of the male shrouds will be smooth bore and the other one will be full detent or limited detent. This ensures that the bullet will remain mated to the full detent side when the system is disengaged.

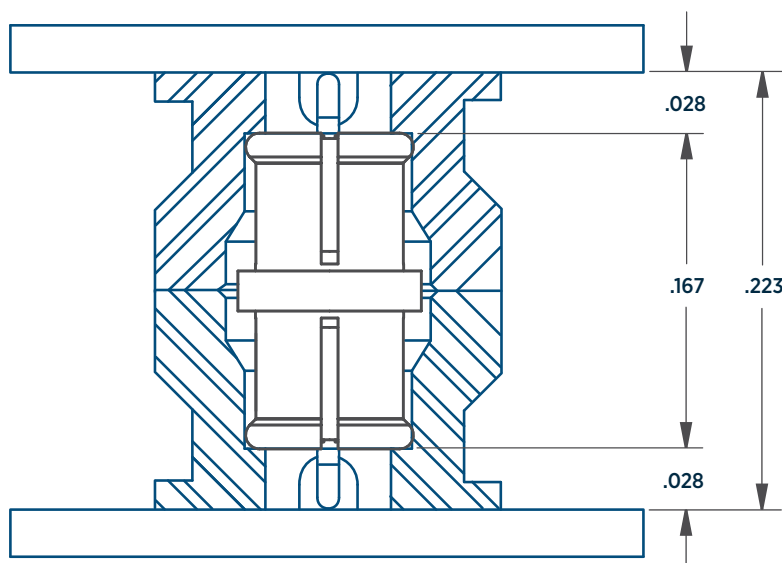


Figure 1: SMPM Shroud-Bullet-Shroud System

SMP / SMPM / SMPS Male Interface Applications

Another common technique is to make the male smooth bore shroud a 'Catcher's Mitt'. The 'Catcher's Mitt' interface style has an extra chamfer on the opening to help align the bullet during mating.

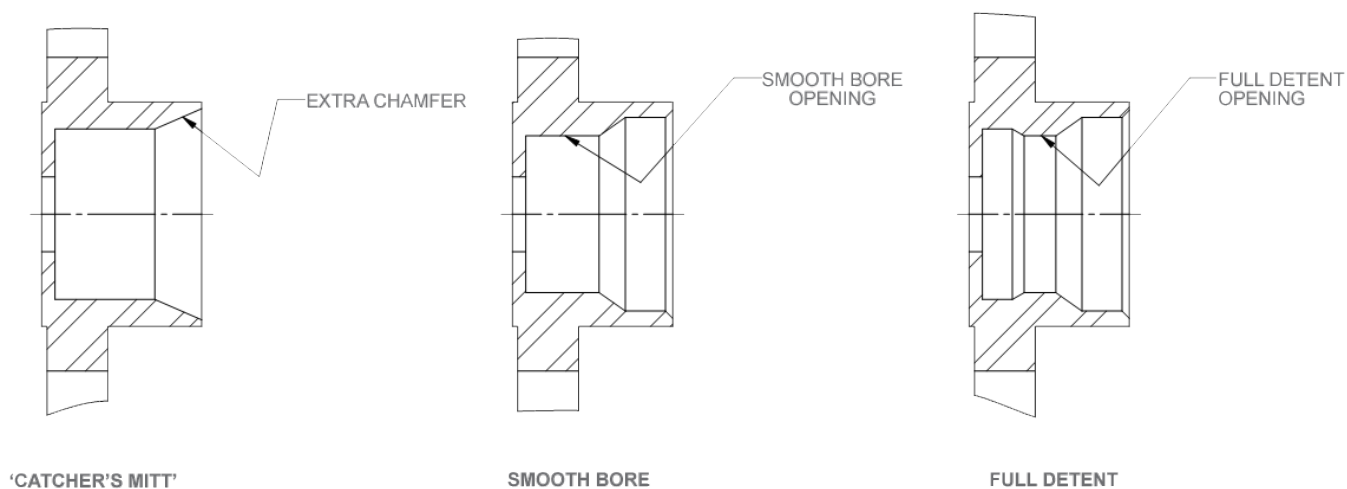


Figure 2: 'Catcher's Mitt', Smooth Bore and Full Detent Interfaces

SMP / SMPM / SMPS Misalignment Applications

SMP/SMPM/SMPS connectors are designed to perform well, even under misaligned conditions. The image below shows how SV Microwave defines radial and axial misalignment.

Radial and axial tolerances are per mating interface. It is generally assumed that if a full detent interface is used on one side, the bullet will be contacting the reference plane of the shroud at some point under any condition.

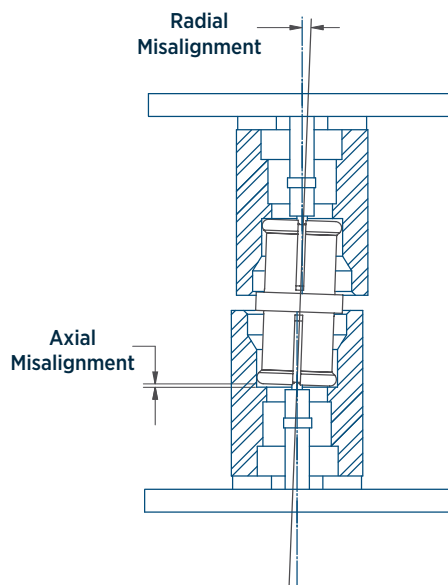


Figure 3: Radial and Axial Misalignment Definitions

SMP / SMPM / SMPS Float Mount Applications

SV Microwave also offers spring-loaded female cable connectors and adapters. The spring force ensures that the reference planes will remain fully mated under axial misalignment. Spring-loaded interfaces are ideal under conditions where vibration is expected or tolerance stack-up requires additional axial misalignment. SV Microwave can customize the spring length to provide the exact amount of axial tolerance needed for any application.

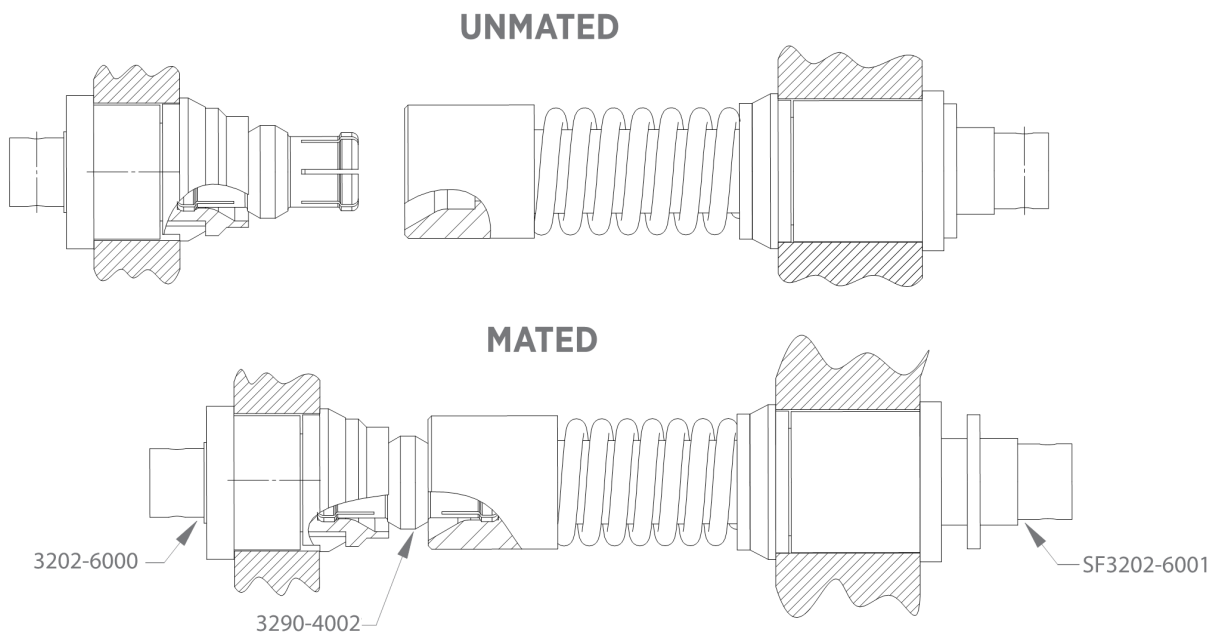


Figure 4: Snap-in Male Cable Connector and Snap-in Spring-Loaded Male Cable Connector and Bullet

Footprint Design Process

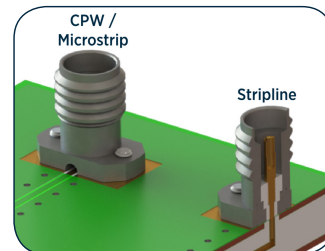
SV Microwave provides optimized PCB connector footprints as a service to our customers. Our engineers optimize the launch for electrical and mechanical performance using the steps detailed below.

STEP 1: Submit Footprint Specification Sheet

Access our 'PCB Footprint Request' form on page 71 of the Appendix or link in the 'Resources' section of our website.

Enter key product information such as:

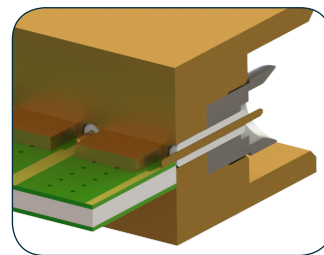
- Connector series
- Desired launch type
- Max operating frequency
- Desired VSWR/Return Loss
- PCB Characteristics



STEP 2: SV Engineering Creates First Pass Footprint

Based on the information provided, our electrical engineers will create an electrical model to simulate performance. At this point, feedback is typically exchanged determining important parameters such as:

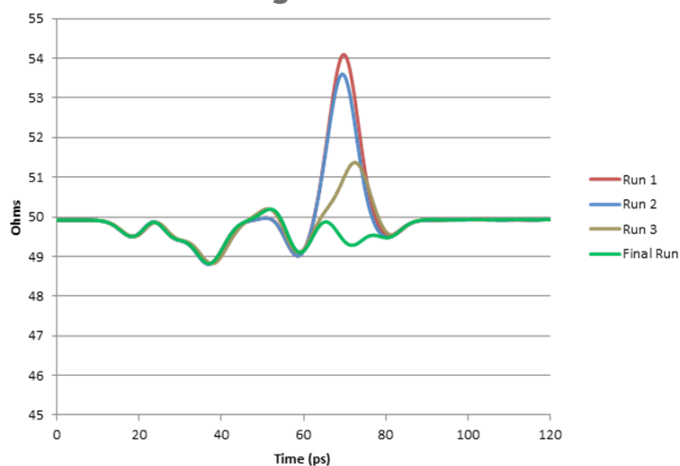
- Copper layer pull back from PCB edge
- Transmission line impedance accuracy based on calculators
- Tolerance of drilled holes and etched features
- Special fabrication requirements



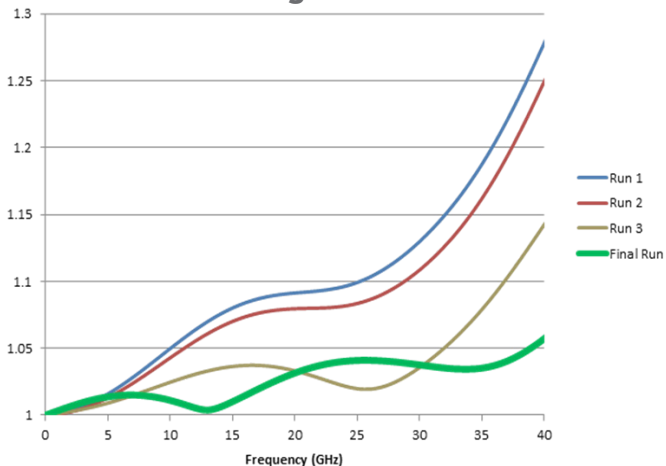
STEP 3: Optimization Through Simulation

Our Electrical Engineers simulate your footprint using our EM simulation software. Mechanical dimensions are then modified via an iterative process until electrical requirements such as VSWR and impedance stability are met.

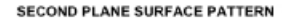
TDR Design Iterations



VSWR Design Iterations



TOP SURFACE PATTERN



PCB Footprint Request Form

Custom PCB Footprint Application

In order to effectively optimize our connector design for your specific application, please fill in the requested information in the appropriate section below and send submissions to marketing@svmicrowave.com or fax to 561.842.6277. Your custom footprint will then be designed, simulated and sent to you in a timely manner. (Additional copies available on our website)

Microstrip Line

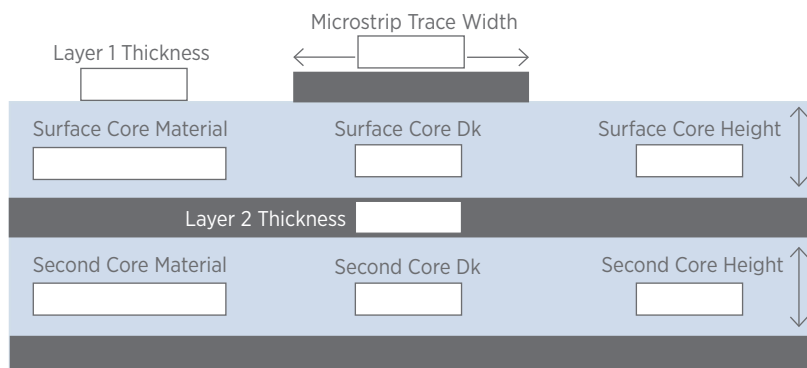


Diagram illustrating the cross-section of a Microstrip Line. The structure consists of a top layer (Layer 1) and a bottom layer (Layer 2). The top layer has a thickness labeled "Layer 1 Thickness" and contains a "Microstrip Trace Width" on its "Surface Core Material". The bottom layer has a thickness labeled "Layer 2 Thickness" and contains a "Second Core Material". The core materials have dielectric constants labeled "Surface Core Dk" and "Second Core Dk". The heights of the core materials are labeled "Surface Core Height" and "Second Core Height".

Required Information

Connector	
Max. frequency	
VSWR/Return loss	
Solder mask	

Optional Information

Copper pullback from edge	
Min. via diameter	
Min. via pad size	
Min. via distance from edge	

Coplanar Waveguide (CPW)

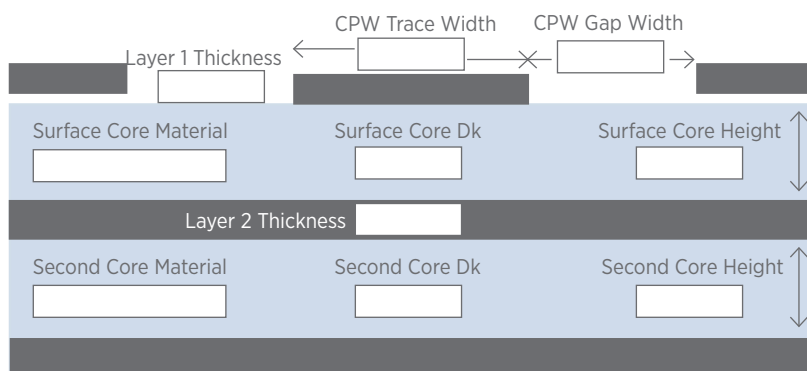


Diagram illustrating the cross-section of a Coplanar Waveguide (CPW). The structure consists of a top layer (Layer 1) and a bottom layer (Layer 2). The top layer has a thickness labeled "Layer 1 Thickness" and contains a "CPW Trace Width" and a "CPW Gap Width" on its "Surface Core Material". The bottom layer has a thickness labeled "Layer 2 Thickness" and contains a "Second Core Material". The core materials have dielectric constants labeled "Surface Core Dk" and "Second Core Dk". The heights of the core materials are labeled "Surface Core Height" and "Second Core Height".

Required Information

Connector	
Max. frequency	
VSWR/Return loss	
Solder mask	

Optional Information

Copper pullback from edge	
Min. via diameter	
Min. via pad size	
Min. via distance from edge	

Stripline

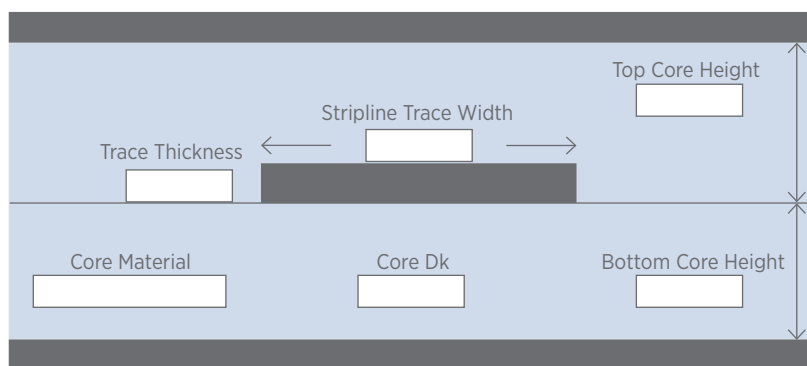


Diagram illustrating the cross-section of a Stripline. The structure consists of a top layer (Layer 1) and a bottom layer (Layer 2). The top layer has a thickness labeled "Trace Thickness" and contains a "Stripline Trace Width" on its "Core Material". The bottom layer has a thickness labeled "Core Material" and contains a "Core Dk". The heights of the core materials are labeled "Top Core Height" and "Bottom Core Height".

Required Information

Connector	
Max. frequency	
VSWR/Return loss	

Optional Information

Min. via diameter	
Min. via pad size	
Backdrill stub length	
Backdrill fill	

*Please attach additional documentation detailing the design features of the PCB including a full board stack-up.

Frequency Chart

Type	Prefix	Freq (GHz)	VSWR*	DWV**	Coupling	Relative Size	Competitor Equivalents	Notes
7/16	84	6	1.15:1	4000	Threaded	3 X		
1.85mm	33	65	1.60:1	500	Threaded	1 X		Mates to 2.4mm
2.4mm	16	50	1.40:1	500	Threaded	1 X	OS-2.4	Mates to 1.85mm
2.92mm	15	40	1.34:1	750	Threaded	1 X	OS-2.92	Mates to SMA
3.5mm	92	26.5	1.30:1	500	Threaded	1 X	OS-3.5	Mates to SMA
BMA	17	22	1.15:1	1000	Slide-on	1 X	OSP	
BMMA	14	28	1.30:1	750	Slide-on	0.75 X	OSSP	
BMZ	89	18	1.20:1	1000	Slide-on	0.75 X		
BNC	47	6	1.20:1	1500	Bayonet	1.5 X		
BZ	88	2	1.10:1	1500	Slide-on	1.5 X		
PN	65	18	1.30:1	3000	Threaded	2.5 X		
PTNC	45	18	1.20:1	1500	Threaded	2 X		(a)
SC	52	11	1.30:1	3000	Threaded	3 X		
SMA	29	18	1.20:1	1000	Threaded	1 X	OSM	(a) (c)
SMB	23	4	1.10:1	1000	Slide-on	0.5 X		
SMC	22	10	1.40:1	1000	Threaded	0.5 X		
SMP	12	40	1.40:1	500	Snap-on	0.25 X	GPO, MMSP, OSMP	
SMPM	32	65	1.30:1	325	Snap-on	0.2 X	GPPO, MSSP, OSMPM	
SMPS	38	100	1.30:1***	250	Snap-on	0.15 X	G3PO	
SSMA	27	36	1.30:1	750	Threaded	0.75 X	OSSM	(b)
SVMS	49	23	1.30:1	1500	Snap-on	1 X	GMS	
TNC	40	15	1.30:1	1500	Threaded	2 X		(a)
TRIAx (BNC)	48	6	1.30:1	1500	Bayonet	2 X		
TRIAx (TNC)	48	11	1.30:1	1500	Threaded	2 X		
TYPE N	50	12.4	1.30:1	3000	Threaded	2.5 X		
ZMA	87	18	1.20:1	1500	Bayonet	1.5 X		

(a) 12.4 GHz for mitered right angle version

(b) 18 GHz for mitered right angle version

(c) 26 GHz version available

* VSWR measured at max frequency

** DWV Values given at sea level
and 25 degrees Celsius

*** Measured at 65 GHz

M39012 - Connectors

M83517 - Stripline Connectors

M55339 - Adapters

M31031 - Blindmate Connectors

M3933 - Attenuators

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