

Amphenol
SV MICROWAVE[®]
RF Connectors & Components

**SMPS Coaxial
Connectors**

Features and Benefits

- **30% smaller than SMPM**
- **100 GHz capacity**
- **Full detent and smooth bore**



Applications

- **Board to Board stack height .120"**
- **Board edgemount to backplane**
- **High frequency inside the box cable assemblies**
- **High density multiport connectors and blocks**
- **Light weight; bullet weighs only 16 milligrams**



SMPS Coaxial Connectors

SMPS Connectors - Specifications

The next generation in miniature connectors and SV Microwave's RFFortless family is the SMPS. The SMPS series furthers SV's threadless designs of push-on and blindmate connectors and is capable of frequencies exceeding 100 GHz. Being 30% smaller than the SMPM, the SMPS is ideal for dense packaging in multiport applications, while also having a low profile making it an excellent choice for board to board applications using a bullet design. Current configurations include male and female cable connectors, board mount, edge launch and the female bullet. The male interface is available in smooth bore for easy mating or detent for female retention.

The SMPS has low VSWR of 1.15 DC to 40 GHz, 1.25 40 to 65 GHz for the female bullet while allowing for .010" of radial and axial misalignment. The smooth bore design will mate and demate a minimum of 500 cycles and the detent design is capable of 100 cycles minimum.

From the original SMP to the smaller SMPM and now the SMPS, SV Microwave has your RFFortless collection of push-on connectors.

Materials and Finish

Body	Beryllium Copper per ASTM B196, Gold Plated per MIL-G-45204, Type II, grade C, Class 1, over Nickel Plate per QQ-N-290
Outer Contacts	Beryllium Copper per ASTM B196, Gold Plated per MIL-G-45204, Type II, grade C, Class 1, over Nickel Plate per QQ-N-290
Center Contacts	Beryllium Copper per ASTM B196, Gold Plated per MIL-G-45204, Type II, grade C, Class 1, over Nickel Plate per QQ-N-290
Insulators	PTFE Fluorocarbon per ASTM D1710 and ASTM D 1457

Electricals

Frequency Range	DC to 100 GHz
Nominal Impedance	50 Ω
VSWR	1.15 DC to 40 GHz (typical) 1.25 40 to 65 GHz (typical)
Insertion Loss (Adapters)	.12 √f (where f = GHz) dB
DWV	250 VRMS min. at sea level
Corona Level	100 VRMS @ 70,000 Ft.
RF High Potential	150 VRMS @ 5 MHz
RF Leakage (Fully Mated)	-80 dB (typical mated pair)
Insulation Resistance	3,000 megohms min.
Center Contact Resistance	6.0 milliohms max.
Outer Contact Resistance	2.0 milliohms max.

Environmentals

Temperature Rating	-55°C to +165°C
Thermal Shock	MIL-STD-202, Method 107, Condition B
Salt Spray	MIL-STD-202, Method 101
Vibration	MIL-STD-202, Method 204, Condition D
Shock	MIL-STD-202, Method 213, Condition I
Moisture Resistance	MIL-STD-202, Method 106, Except Step 7B
Vibration (Random)	MIL-STD-202, Method 214, Condition F, 15 minutes min.

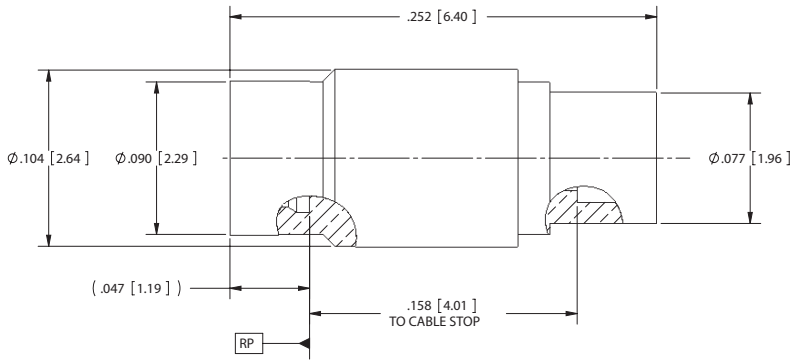
Mechanicals

Mate/Demate Cycles	Full Detent – 100 min Smooth Bore – 500 min
Force to Engage/Disengage	Full Detent – 3.5 lbs. typical/6.0 lbs. typical Smooth Bore – 1.6 lbs. typical/2.5 lbs. typical
Tolerated Misalignment	
Radial	+/-0.010"
Axial	0.010" (flush to -0.010" from the reference plane)



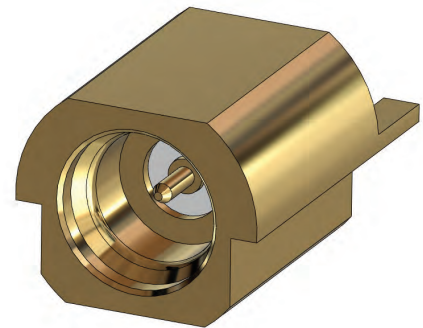
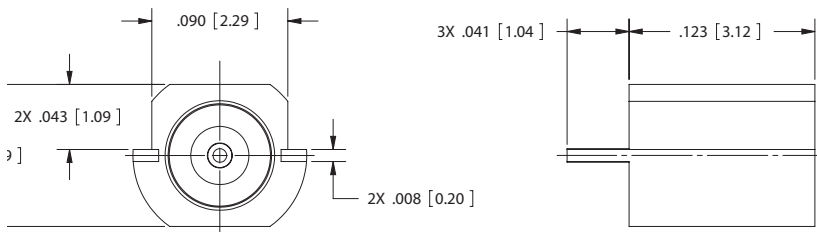
E-Mail: sales@svmicro.com • Website: www.svmicrowave.com
2400 Centrepark West Drive, Suite 100, West Palm Beach, FL 33409

Cable Connectors



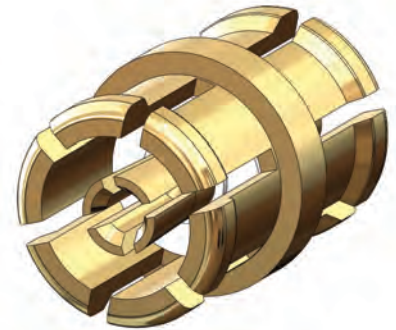
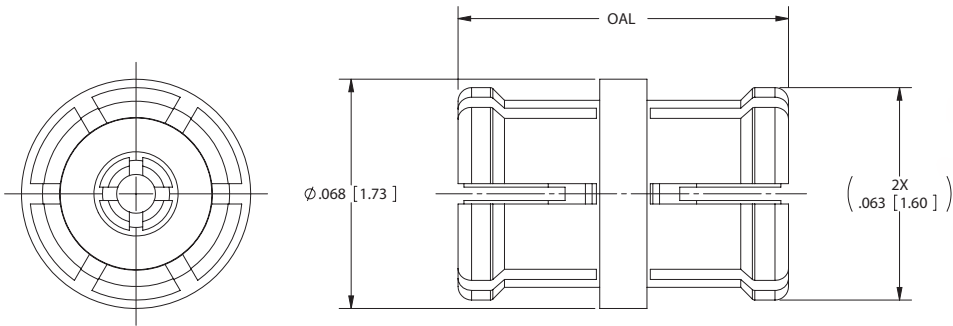
P/N	Description
3811-40001	Male FD to .047 cable
3811-40002	Male SB to .047 cable
3821-40001	Female to .047 cable

Edge Mount Board Connectors



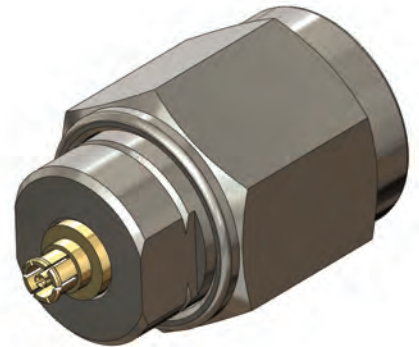
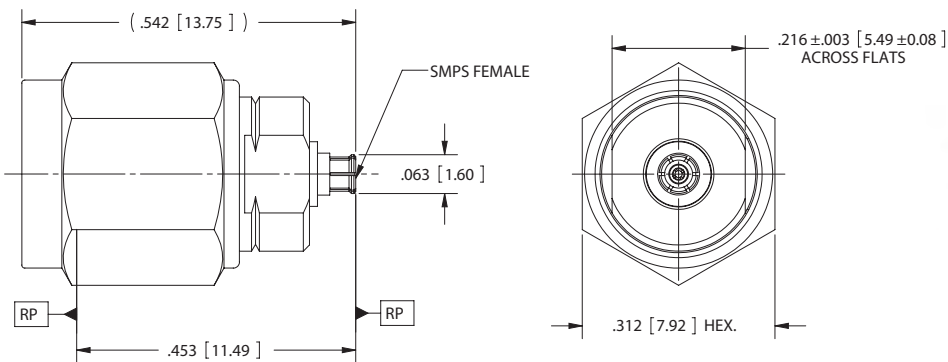
P/N	Description
3811-40003	Male FD Edge Mount
3811-40004	Male SB Edge Mount

In Series Adapters Bullet



P/N	Description	OAL
1138-4001	Female to Female Bullet	.098
1138-4002	Female to Female Bullet	.118
1138-4003	Female to Female Bullet	.134
1138-4004	Female to Female Bullet	.188

Between Series Adapters



P/N	Description
SF1116-6023	Male SB to 2.4 mm Male
SF1116-6024	Male LD to 2.4 mm Male
SF1116-6025	Female to 2.4 mm Male

SMPS Tools Also Available



E-Mail: sales@svmicro.com • Website: www.svmicrowave.com
 2400 Centrepark West Drive, Suite 100, West Palm Beach, FL 33409