

Threaded SMPM RF Interconnects

Features & Benefits

- Threaded SMPM interface provides secure robust connection
- Optional tooling, not required for assembly
- Low mate/demate force
- Smaller form factor than standard threaded RF connections

Applications:

- Portable Radar
- Missile Guidance
- LEO Satellite payloads
- Test and Instrumentation



Retain a Secure Connection in High Vibration Environments

Amphenol SV Microwave's Threaded SMPM product family offers a reliable, high-frequency connection by combining the standard SMPM interface with a threaded coupling nut. This feature, shown in Figure 2, provides peace of mind by virtually eliminating the risk of accidental decoupling during use, especially in demanding environments. The threaded coupling design maintains connection stability under vibration, addressing common issues like loose RF connections in space and military aircraft. It ensures consistent RF performance in compliance with MIL-STD-202, Method 204, Condition D.

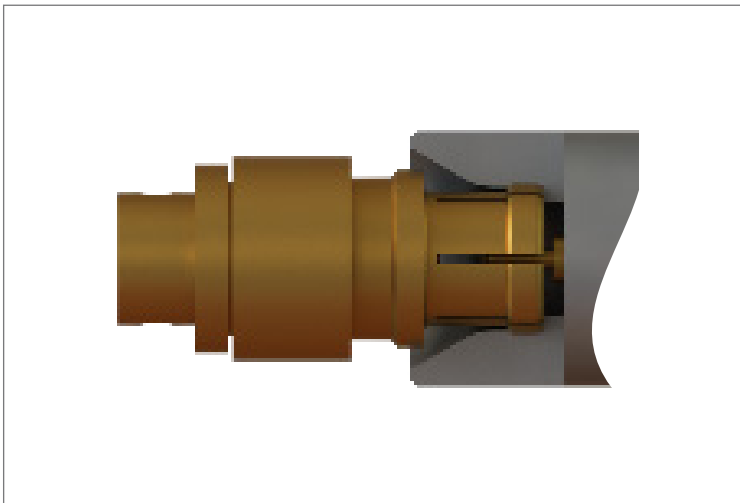


Figure 1: Traditional mated SMPM pair depends on male detent for captivation

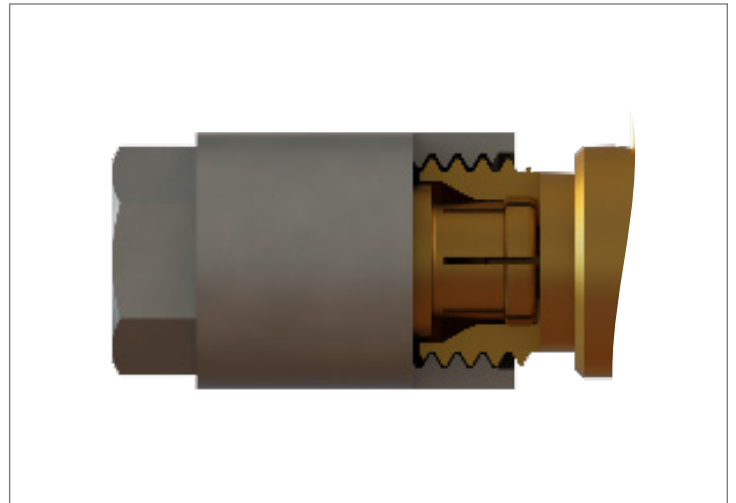


Figure 2: Threaded mated SMPM pair uses threaded coupling nut for additional captivation

Product Line Characteristics

The Threaded SMPM is our highest-density threaded connector, with a 58% smaller footprint than a traditional SMA. Despite its threaded nut, it’s nearly the same size as a standard SMPM, and uses a recommended torque of 25±2 in-oz. The figures below compare an SMA (M39012/79-3108) a Threaded SMPM (3221-60016) and a standard SMPM (3221-4007).

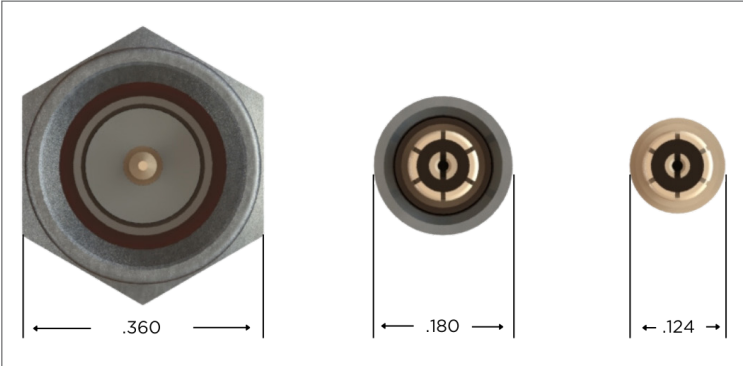


Figure 3: Diameter Comparison

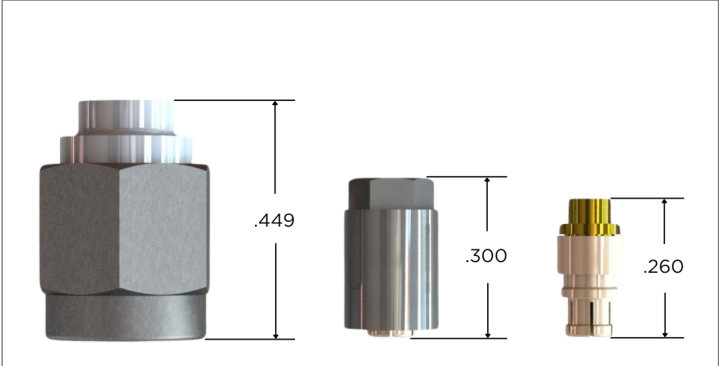


Figure 4: OAL Comparison

Part Number	Description	Freq.
1132-6108	Threaded SMPM Female to 2.92mm Female Adapter	40 GHz
1132-6109	Threaded SMPM Male to 2.92mm Female Adapter, SB	40 GHz
3221-60016	Threaded SMPM Female Connector for .085 Cable	40 GHz
3221-60017	Threaded SMPM Female Connector for .047 Cable	40 GHz
3222-40059	Threaded SMPM Female Connector, R/A for .085 Cable	26.5 GHz
3222-40060	Threaded SMPM Female Connector, R/A for .047 Cable	26.5 GHz
3211-40121	Threaded SMPM Male PCB Edge Launch Connector, SB	40 GHz
3211-60298	Threaded SMPM Male PCB Thru-Hole Connector, SB	40 GHz
3212-60037	Threaded SMPM Male PCB Thru-Hole Connector (Pre-Tinned), R/A, SB	40 GHz
3211-40170	Threaded SMPM Male PCB Edge Launch Connector (Pre-Tinned), SB	40 GHz
3211-60407-1S	Threaded SMPM Male Solderless PCB Edge Launch Connector, 2 Hole, with 4.76mm Screws, SB	40 GHz
3211-60407-2S	Threaded SMPM Male Solderless PCB Edge Launch Connector, 2 Hole, with 6.35mm Screws, SB	40 GHz
7032-9893	Threaded SMPM Female to SMA Male 12” Cable Assembly for .085 Cable	18 GHz
7032-9894	Threaded SMPM Female R/A to SMA Male 12” Cable Assembly for .085 Cable	18 GHz
7032-9895	Threaded SMPM Female to SMA Male 12” Cable Assembly for .047 Cable	18 GHz
7032-9896	Threaded SMPM Female R/A to SMA Male 12” Cable Assembly for .047 Cable	18 GHz
500-32-056	Calibrated Torque Tool	N/A
500-32-057	Wrench	N/A