

Circular Multiport Connection System

Features & Benefits

- High density design
- Increased durability for field use
- Rugged, abrasion-resistant, and lightweight materials
- Highly secure, keyed and threaded connection
- Customizable insert arrangement with SMPM/SMPS contacts
- DC - 40 GHz

Applications

- High Vibration Environments
- Military and Aerospace
- Test and Instrumentation
- Airborne Radar
- Multichannel I/O



Simplify and Secure Multiple Blindmate Connections

This product combines SMPM/SMPS connectors into a single multiport, reducing its footprint as compared to an equivalent amount of threaded single port connectors. This unique multiport has a keying feature that properly aligns connectors to their mating halves. This reduces mating error, the time necessary to make multiple connections and the amount of tooling needed. This connection system is completely customizable - from the interface configuration, to the cable length, and the connectors on the other end.

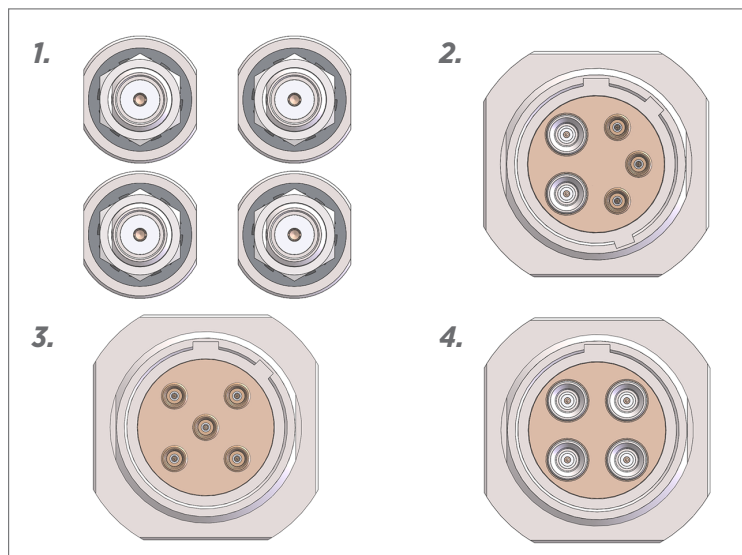


Figure 1: Custom Inserts - clockwise from top left: **1.** (4) SMA Bulkhead Connectors **2.** (2) SMPM & (3) SMPS contacts **3.** (5) SMPS contacts **4.** (4) SMPM contacts

Specifications

Electrical	SMPS/SMPM Series		
Freq. Range	18 GHz	26.5 GHz	40 GHz
VSWR	1.2:1 Max	1.3:1 Max	1.5:1 Max
Insertion Loss	0.09 dB/in	0.11 dB/in	0.15 dB/in

Product Line

P/N	Description
7077-0457	SMPM Male Circular Multiport to 2.92mm Male 12" Cable Assembly for .085 Cable
7077-0458	SMPM Female Circular Multiport to 2.92mm Male 12" Cable Assembly for .085 Cable
7077-0459	SMPS Male Circular Multiport to 2.92mm Male 12" Cable Assembly for .085 Cable
7077-0460	SMPS Female Circular Multiport to 2.92mm Male 12" Cable Assembly for .085 Cable

Electrical Performance Data

The electrical data shown below is typical of a mated Circular Multiport assembly as shown in Figure 2. The VSWR data shown in Figure 3 also included 24 total inches of Ø.086" flexible cable and 2.92mm male connectors. In Figure 4, the RF isolation within the Multiport is maximized due to the design of the connectors. The data shows that the level of crosstalk is below the noise floor of SV's test lab.

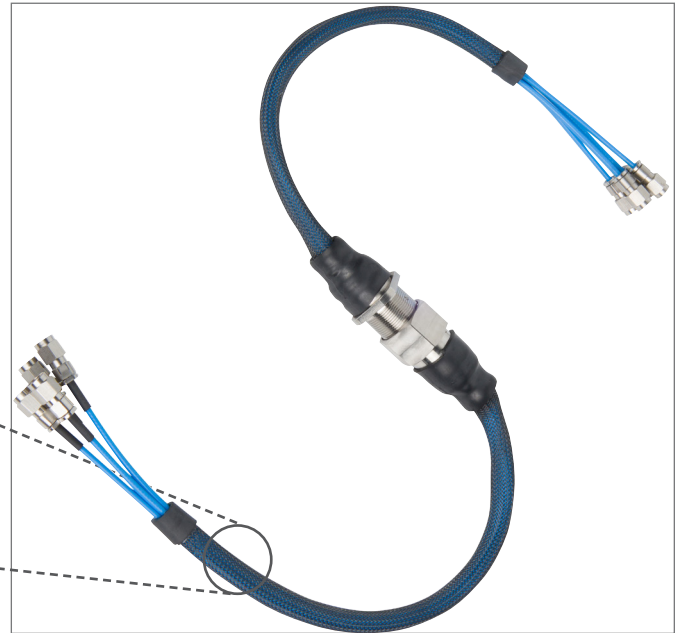


Figure 2: Mated Pair, 7077-0457 and 7077-0458

Figure 2a: Detailed view of armored, abrasion-resistant cable sheath used in Circular Multiport assembly

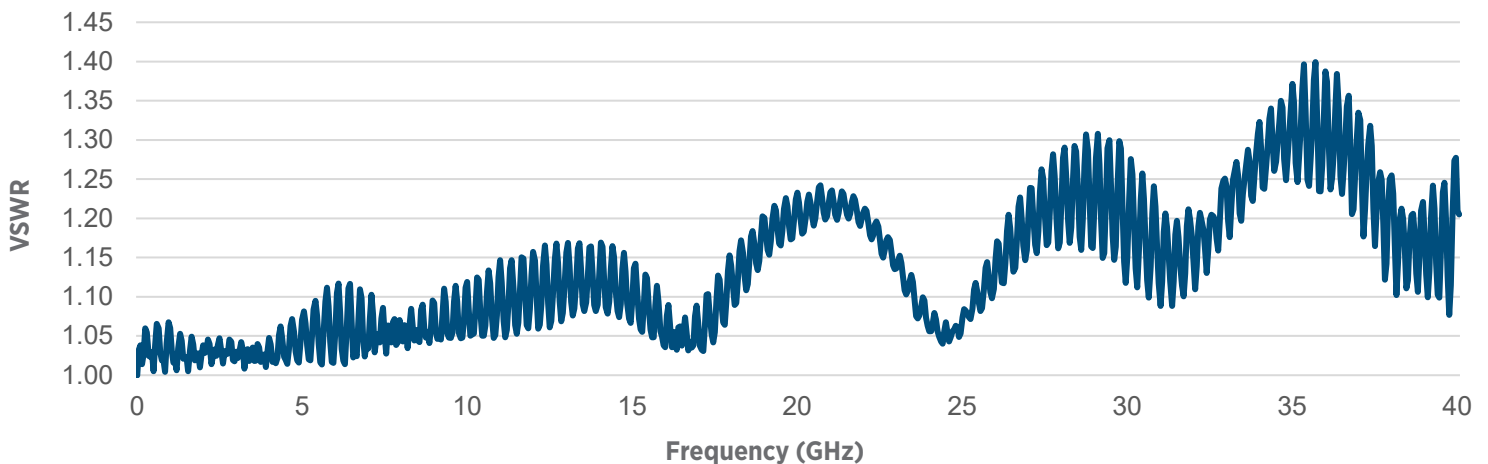


Figure 3: VSWR of the Circular Multiport Mated Pair

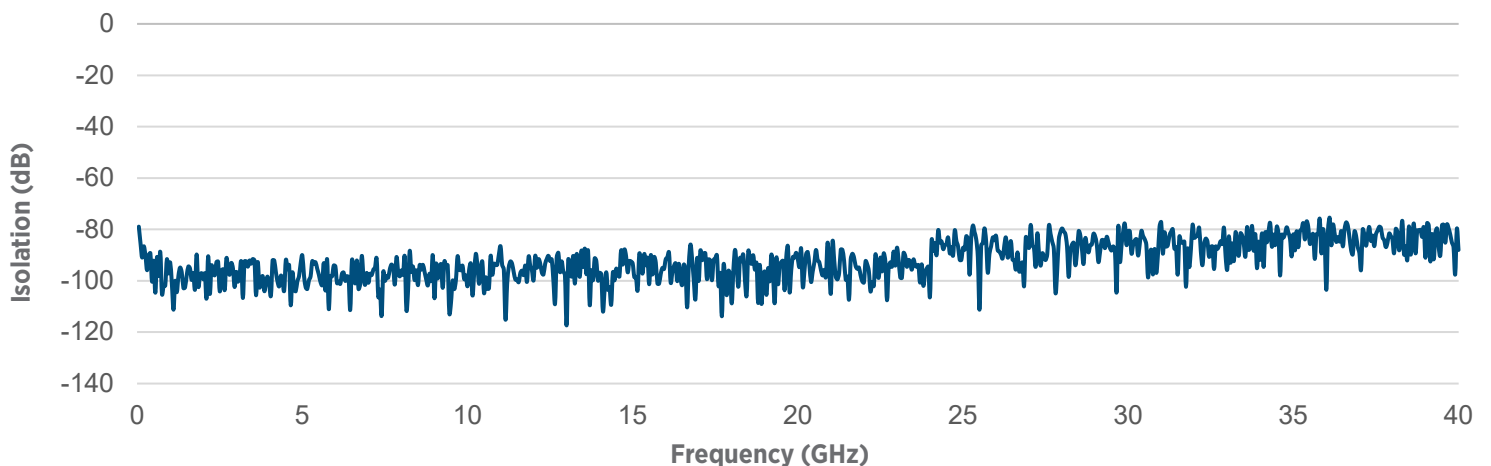


Figure 4: Adjacent Port Crosstalk of the Circular Multiport is below the 80 dB noise floor.