

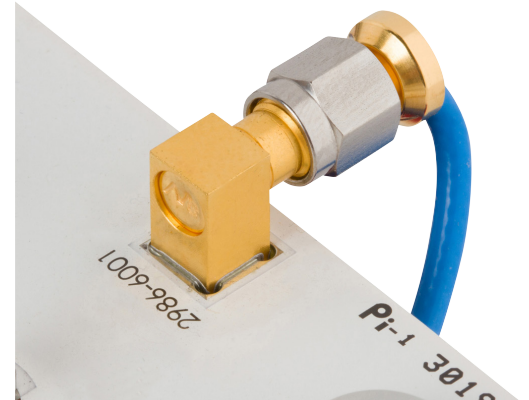
# Low Profile RF Cable Assemblies

## Features & Benefits

- Immediate bends exiting the connector
- Lowest profile on the market
- Ferrule supports cable to eliminate damage
- Terminates to all standard  $\text{Ø}.086''$  cable types
- Permits  $\pm 1/2^\circ$  per GHz phase matching

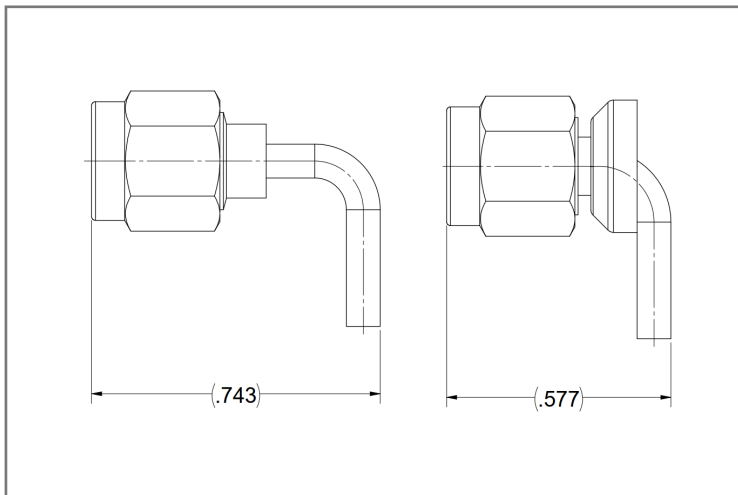
## Applications

- Connection in between modules
- Phased array systems
- Inside the box with tight spacing

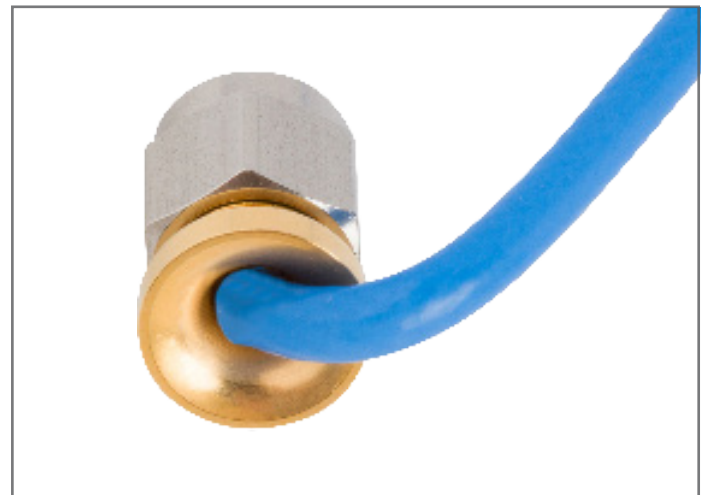


## Low Profile RF Cable Assemblies protect from Overbending

SV Microwave's unique ferrule design protects the cable from overbending while still maintaining a shorter distance from the front of the coupling nut (Figure 1 below) to the back of the cable bend than standard COTS offerings. Figure 2 demonstrates how the ferrule radius prevents overbending, which protects the cable from defects like: damaged cable braids, kinked cable, and poor RF performance, all of which lead to expensive rework.



**Figure 1:** (Left) Overall occupied length in a standard SMA C/A  
(Right) Overall occupied length in a Low Profile C/A



**Figure 2:** The ferrule radius protects the cable from overbending

## Standard Cable Assembly Configurations

Part Number	Description
7029-3637	SMA Male Low Profile to SMA Male Low Profile 6" Cable Assembly for .085 Cable
7029-3638	SMA Male Low Profile to SMA Male Low Profile 12" Cable Assembly for .085 Cable
7029-3639	SMA Male Low Profile to SMPM Female 6" Cable Assembly for .085 Cable
7029-3640	SMA Male Low Profile to SMPM Female 12" Cable Assembly for .085 Cable

## Low Profile RF Cable Assembly Performance

Two twelve-inch Low Profile SMA RF cable assemblies were tested to discover how VSWR (Figure 3), insertion loss (Figure 4) and phase over frequency (Figure 5) would react with different degrees of bend in the cable. Figures 6 and 7 demonstrate a Low Profile cable assembly in a straight configuration and bent at a 90 degree angle. In each data set all cable assemblies, both straight and bent, maintained consistent RF performance.

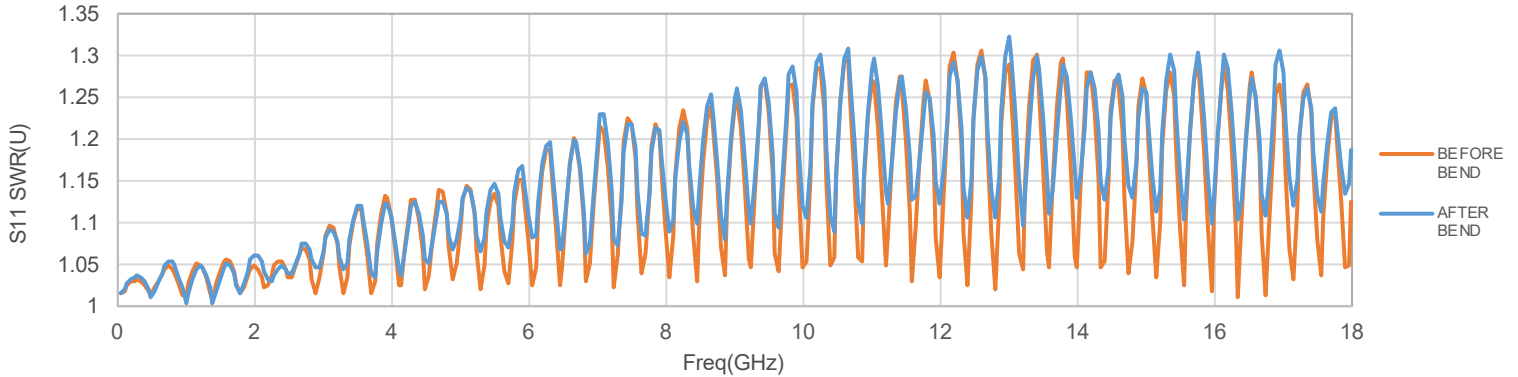


Figure 3: SMA Low Profile VSWR Performance

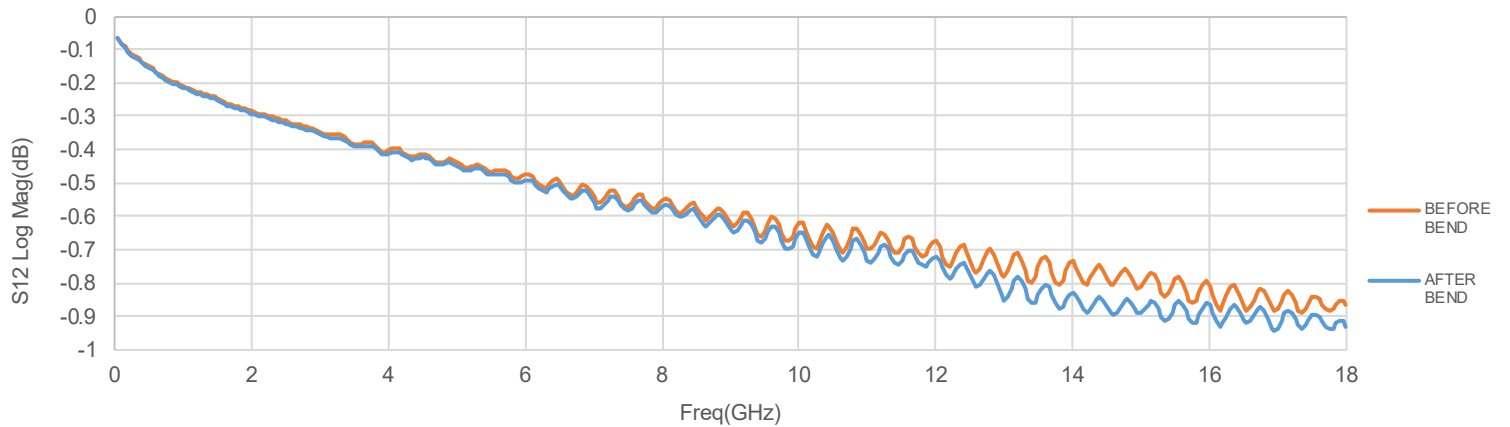


Figure 4: SMA Low Profile Insertion Loss Performance

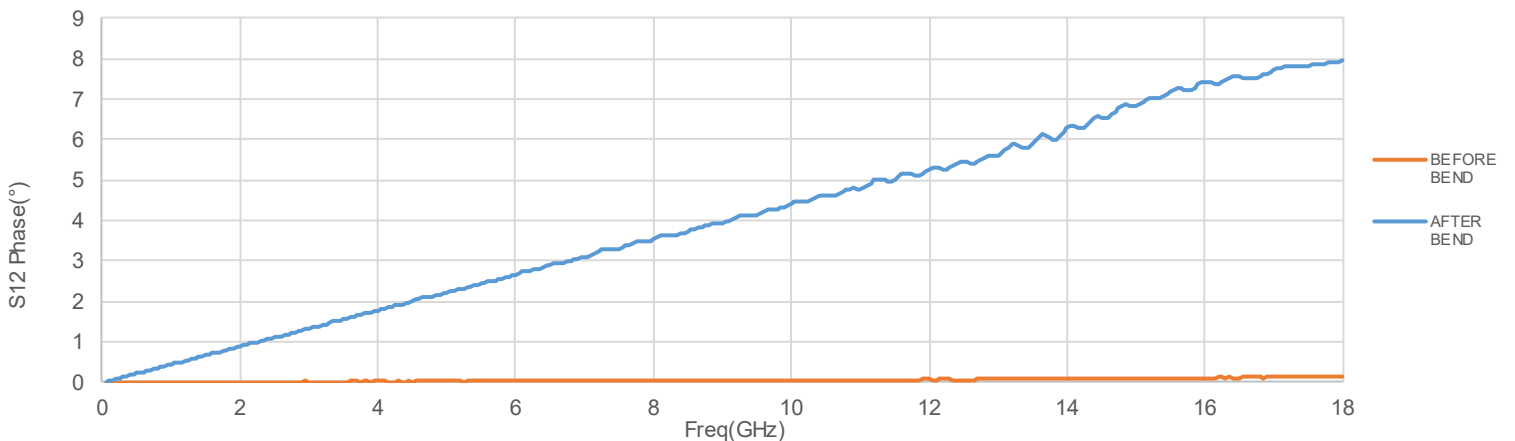


Figure 5: SMA Low Profile Phase over Frequency Performance

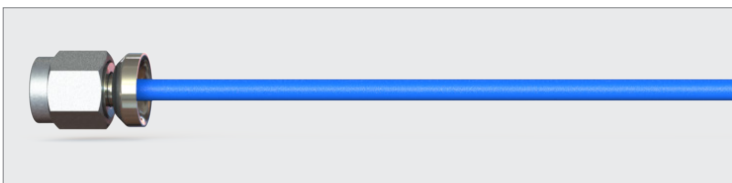


Figure 6: Straight Low Profile RF Cable Assembly

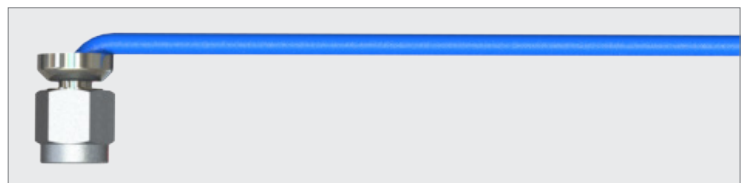


Figure 7: 90° Bend in Low Profile RF Cable Assembly