Coaxial Low-Pass Filter

Features & Benefits

- Lowest passband insertion
- Saves space on the board
- Easy to implement after system design
- Great phase/group delay consistency across channels
- Low outgassing versions available

Applications

- Rx channels
- Radar
- Space
- SIGINT
- Cryo/Quantum

Why In-line filters?

SV Microwave has developed a new line of low pass filters. These filters are integrated into the coax structure itself, instead of using methods like lumped-element or chip-based solutions. These filters have extremely low loss in the passband and do not require PCB real estate. This filter technology can be integrated in-line with cable or terminated with coax interfaces, and are easy to integrate into your system as they do not reside on the board. This saves you time during the design cycle and is great for last-minute additions. Customizations are available to meet your unique specifications.

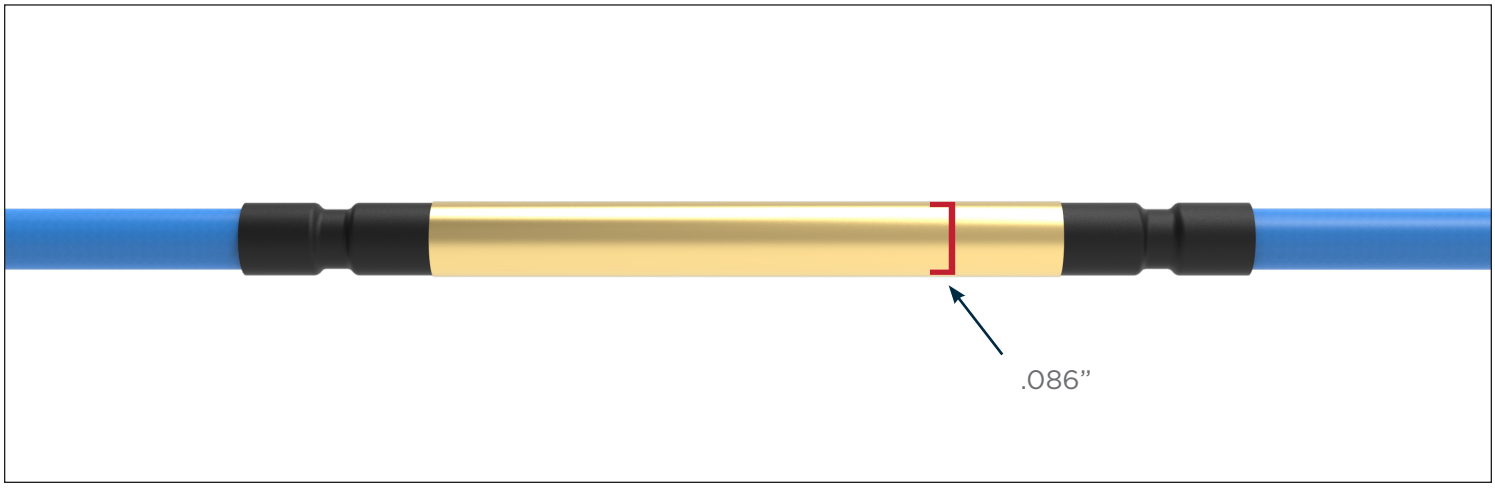

Figure 1: .086 Coaxial Cable In-Line Low-Pass Filter

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Performance Data:

SV's in-line filters are able to deliver greater than 30dB stopband rejection while maintaining extremely low passband insertion loss. They also have great phase/delay consistency, for systems with sensitive matching between channels.

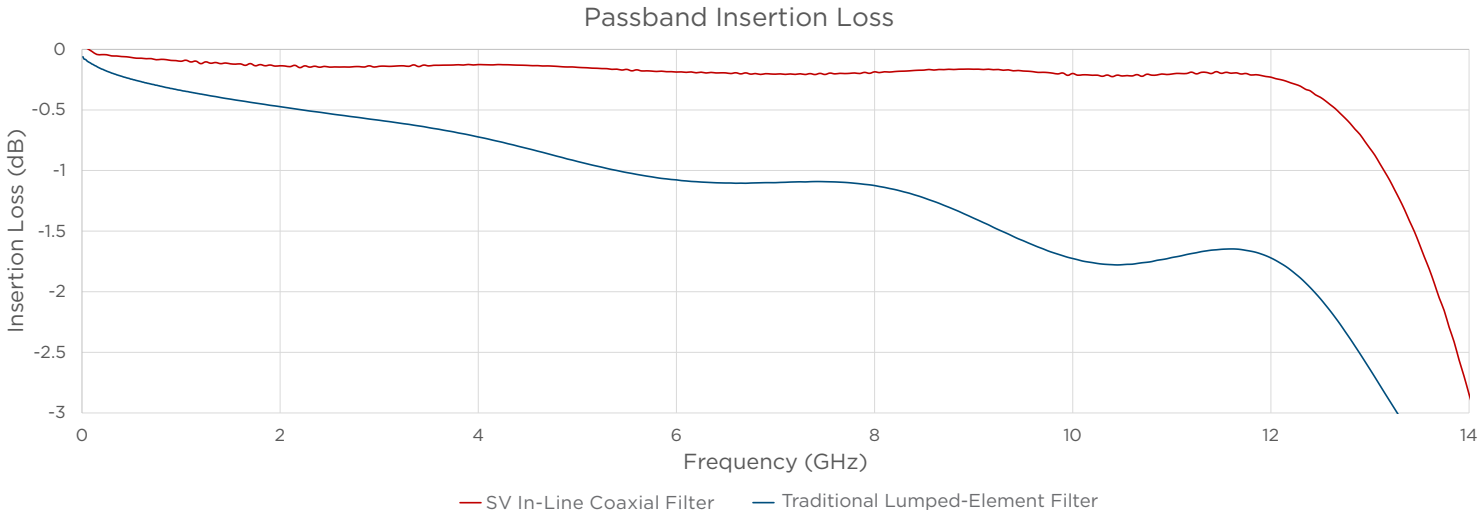

Figure 2: Passband insertion loss of SV's In-line Coaxial SMPM filter vs. a competitors connectorized lumped-element design, both with a 12 GHz cutoff frequency.

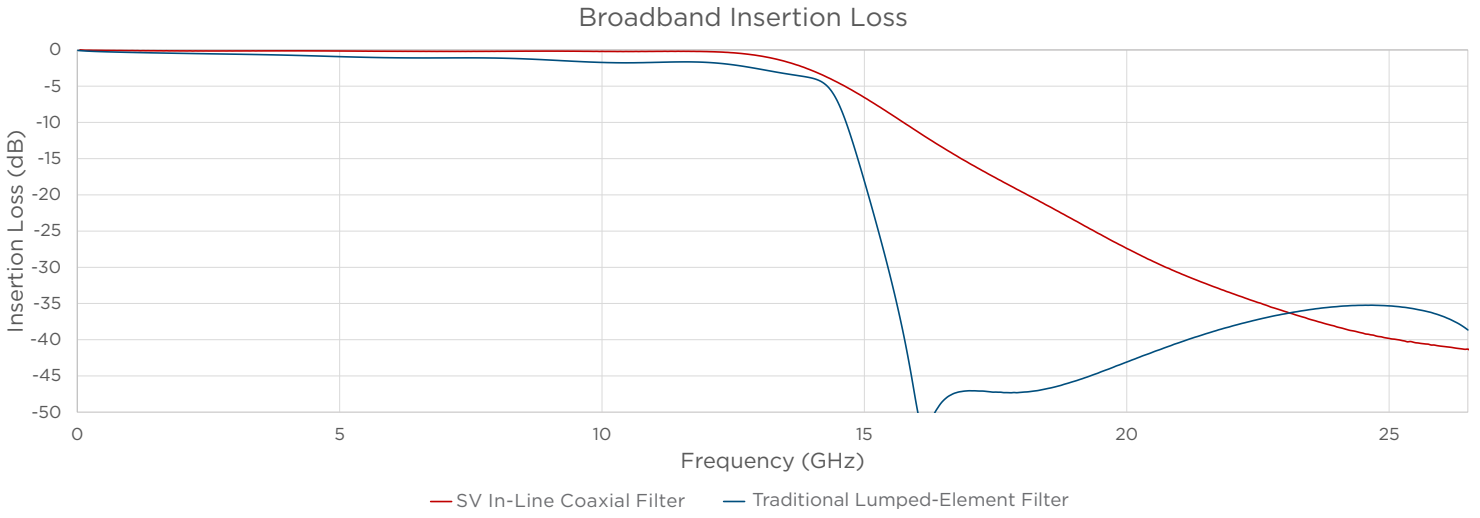

Figure 3: Broadband insertion loss of SV's In-line filter vs. a competitors connectorized limped-element design, both with a 12 GHz cutoff frequency.

Part Number	Series	Type	Pass Band
1129-6311	SMA M → F	Adapter	DC → 12 GHz
1129-6312	SMA M → F	Adapter	DC → 18 GHz
1132-4218	SMPM F → F	Bullet	DC → 12 GHz
1132-4219	SMPM F → F	Bullet	DC → 18 GHz

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