



4-Way Coaxial Power Splitter, 8 to 12.4 GHz

Description:

Model SCS-0831230818-SFSF-42 is a coaxial 4-way power splitter with a typical insertion loss of 0.8 dB at each output port and a typical isolation of 18 dB across the frequency range of 8 to 12.4 GHz. The power splitter has a nominal power handling of 30 W (CW) and a typical amplitude unbalance of ± 0.4 dB. The return loss for all ports is 14 dB typical. The RF connectors of the power splitter are female SMA connectors.



Features:

- Low Insertion Loss
- High Isolation
- Compact Package

Applications:

- Test Lab
- Sub-assemblies
- Test Instrumentation

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	8 GHz		12.4 GHz
Insertion Loss*		0.8 dB	
Amplitude Unbalance		± 0.4 dB	
Phase Unbalance		$\pm 6.0^\circ$	
Port Isolation		18 dB	
Return Loss		14 dB	
Forward Power Handling			30 W (CW)
Reverse Power Handling			2 W (CW)
Impedance		50 Ohms	
Specification Temperature		+25 °C	
Operating Temperature	-35 °C		+80 °C

*Note: The insertion loss is circuit loss, which does not include the power dividing loss.

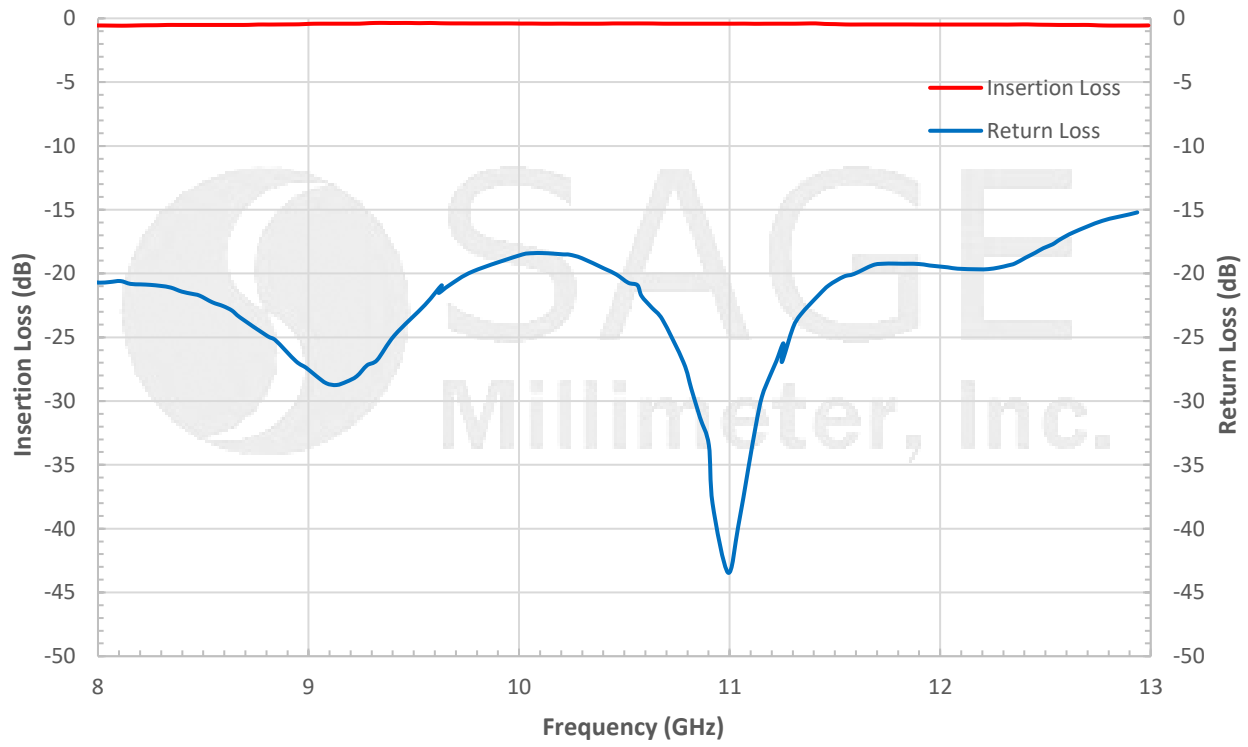
Mechanical Specifications:

Item	Parameter
RF Connectors	SMA (F)
Case Material	Aluminum
Finish	Black Paint
Size	1.99" (L) x 1.77" (W) x 0.39" (H)
Outline	CS-X4-SR2

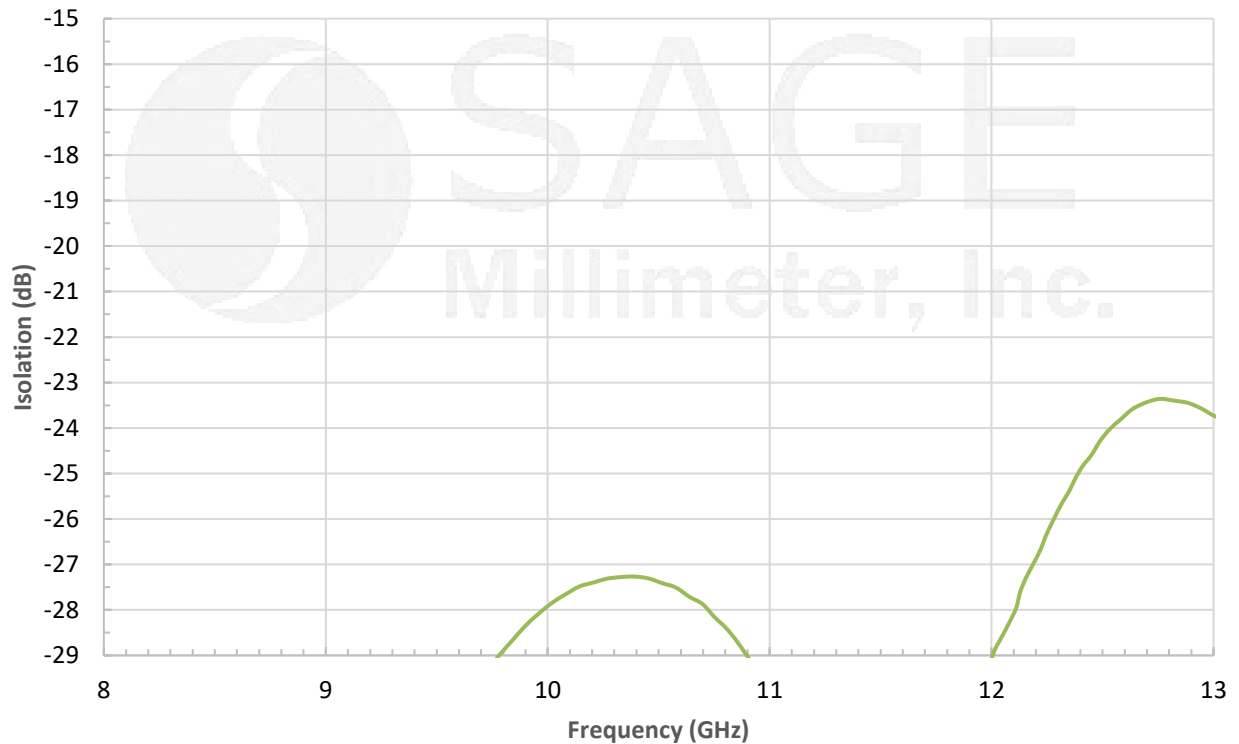


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Typical Performance vs. Frequency



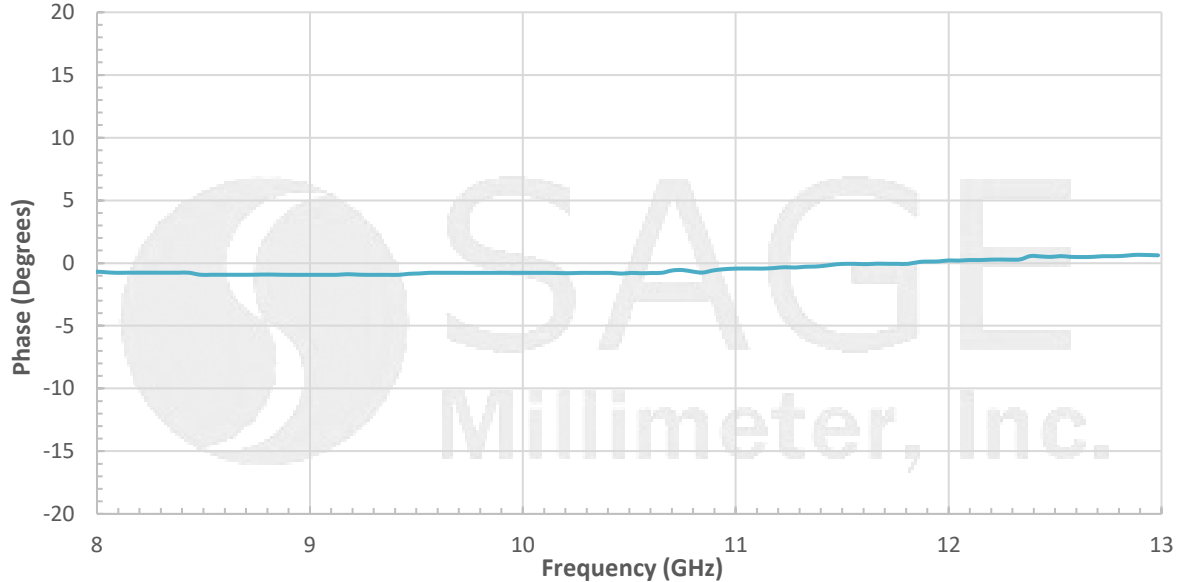
Typical Isolation vs. Frequency



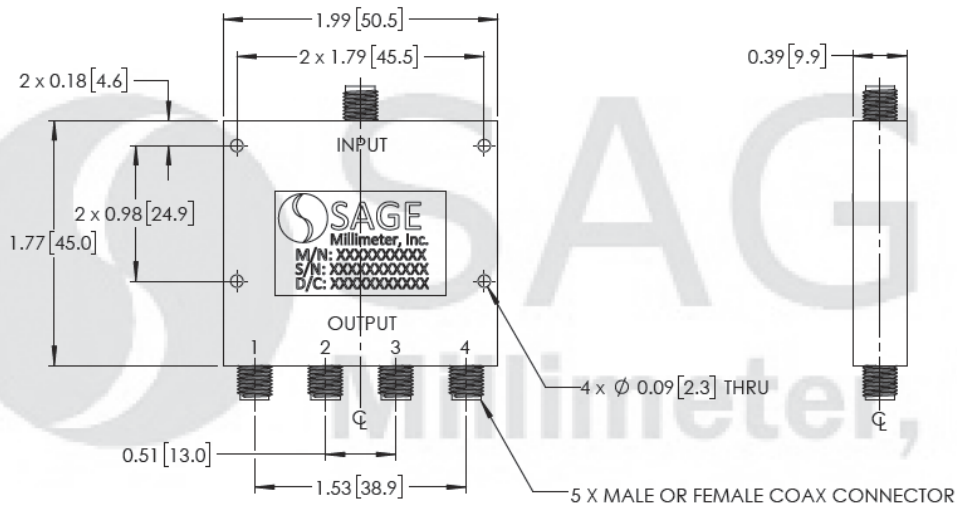


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Typical Phase Unbalance vs. Frequency



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings of the switch will damage the device.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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