



Coaxial Hybrid Coupler, 1 to 18 GHz, 90 Degrees

Description:

Model **SCZ-0131831509-SFSF-43** is a coaxial 90-degree hybrid coupler that covers the frequency range of 1.0 to 18 GHz. The nominal coupling is 3 dB and the typical insertion loss is 1.5 dB. The typical isolation of the coupler is 18 dB. The RF connectors of the coupler are female SMA connectors. The power handling of the coupler is 50 watts maximum. Other configurations, such as different connectors for input and output, are available under different model numbers.



Features:

- Broad Band
- Low Insertion Loss
- Flat Coupling Level

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	1 GHz		18 GHz
Insertion Loss		1.5 dB	
Isolation		18 dB	
Coupling		3 dB	
Return Loss		20 dB	
Amplitude Unbalance		±1.0 dB	
Phase Unbalance		±12°	
Impedance		50 Ω	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

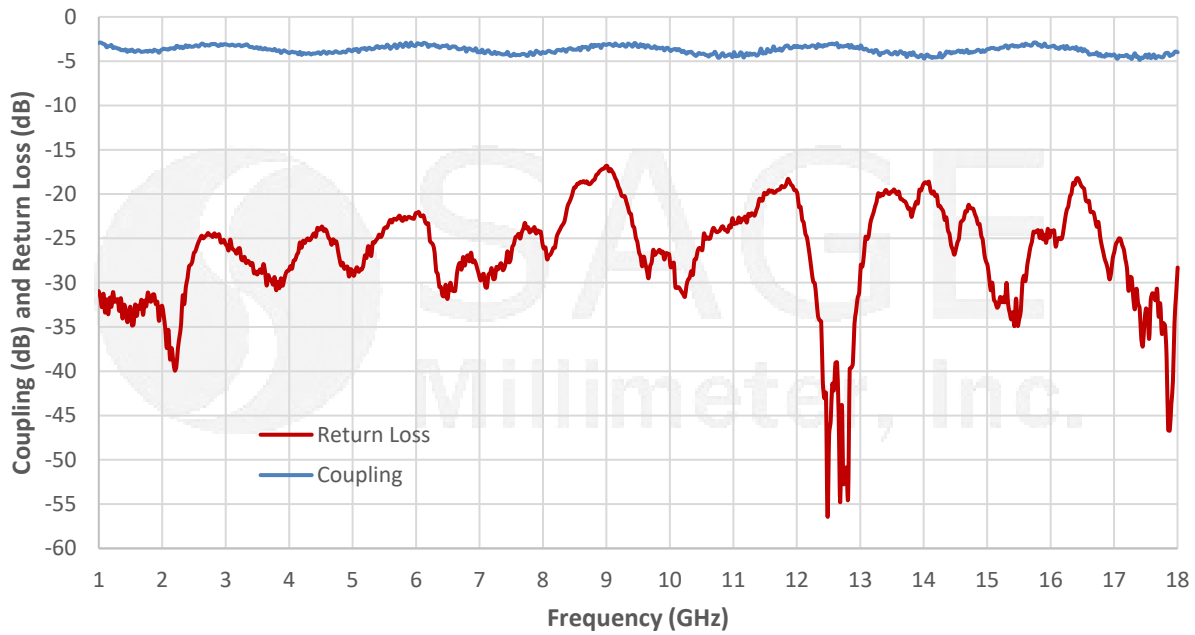
Mechanical Specifications:

Item	Specification
Input/Output Ports	SMA Female
Case Material	Aluminum
Finishing	Epoxy Paint
Weight	2.1 Oz
Outline	CZ-SS-SR11

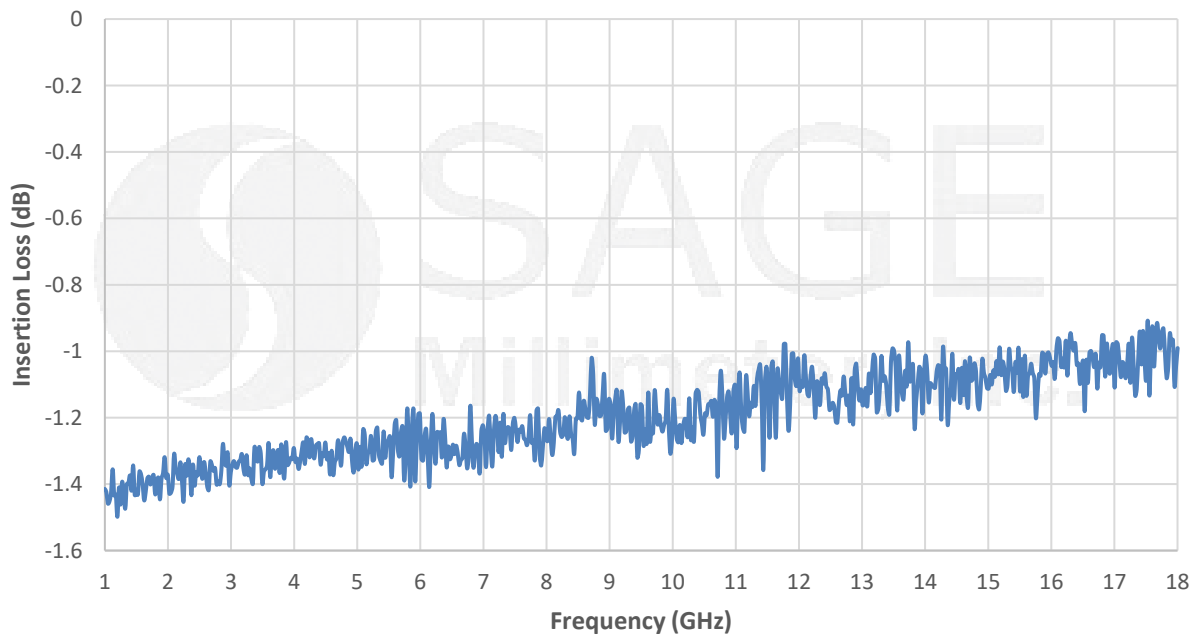


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Typical Coupling and Return Loss vs Frequency



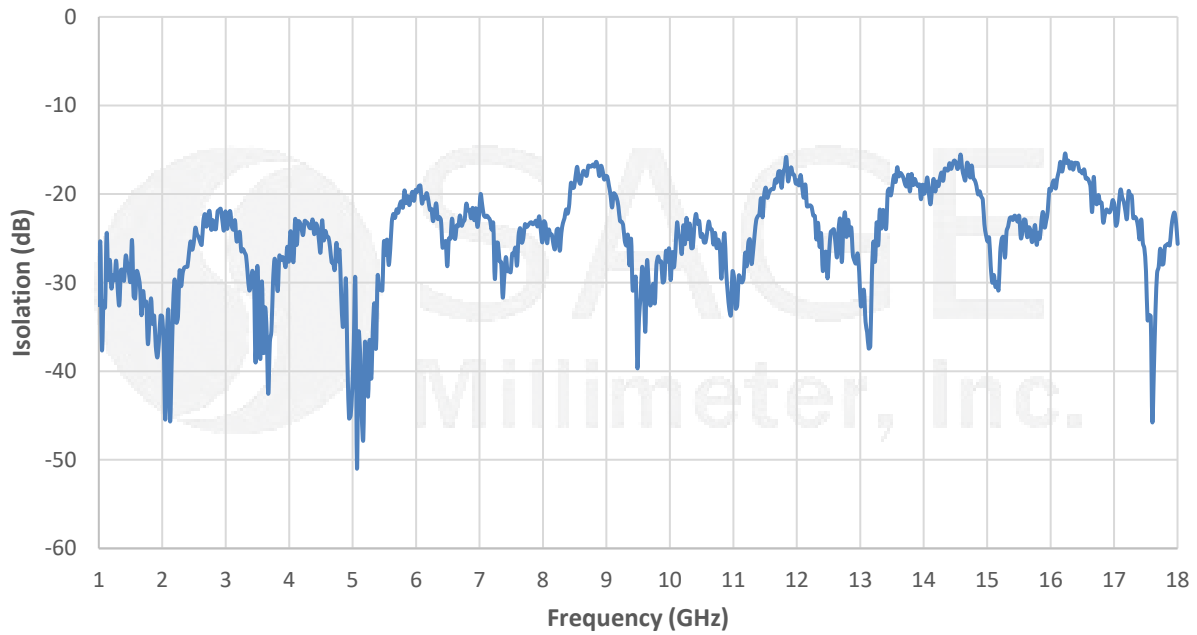
Typical Insertion Loss vs Frequency



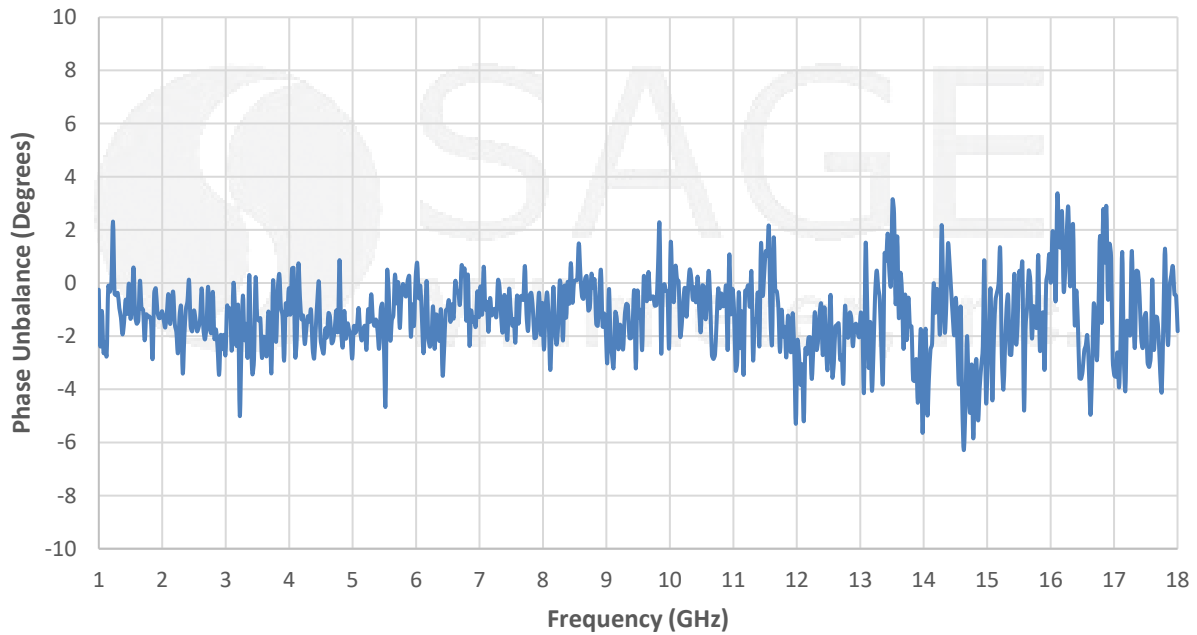


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Typical Isolation vs Frequency



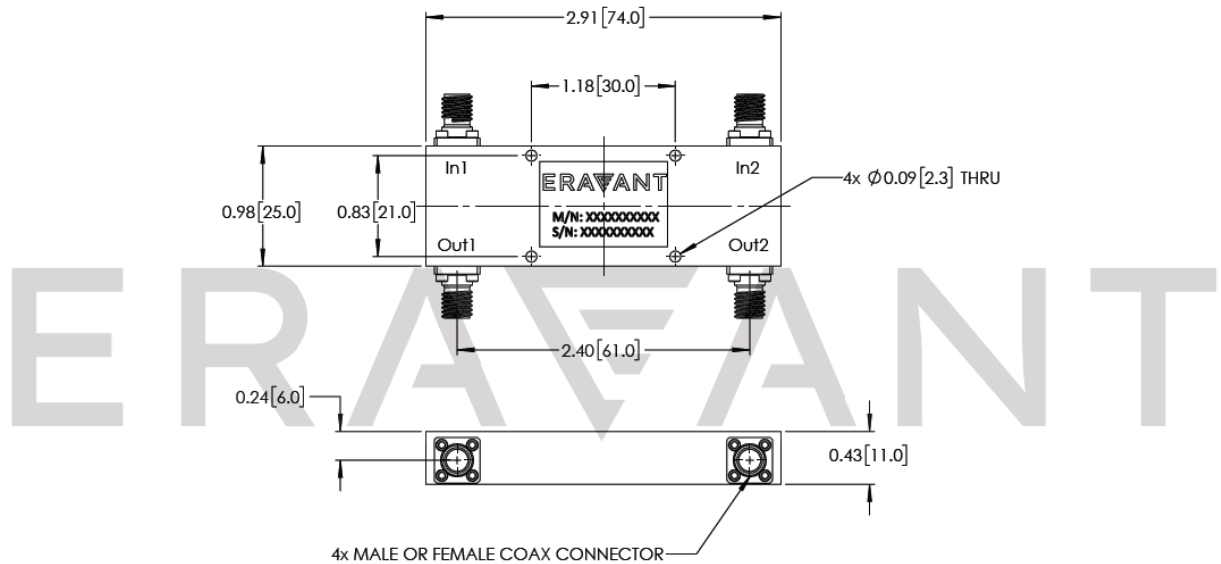
Typical Phase Unbalance vs Frequency





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



Note:

- Eravant reserves the right to change the information presented without notice.

Caution:

- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model [SCH-08008-S1](#), is highly recommended.**

