



## Coaxial Hybrid Coupler, 2 to 8 GHz, 90 Degrees

### Description:

**Model SCZ-0230832009-SFSF-43** is a coaxial 90-degree hybrid coupler that covers the frequency range of 2.0 to 8.0 GHz. The nominal coupling is 3 dB and the typical insertion loss is 0.8 dB. The typical isolation of the coupler is 20 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:

- Broadband
- Low Insertion Loss
- Flat Coupling Level

### Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	2.0 GHz		8.0 GHz
Insertion Loss		0.8 dB	
Isolation		20 dB	
Coupling		3 dB	
Return Loss		17 dB	
Amplitude Unbalance		±0.7 dB	
Phase Unbalance		±5°	
Impedance		50 Ω	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

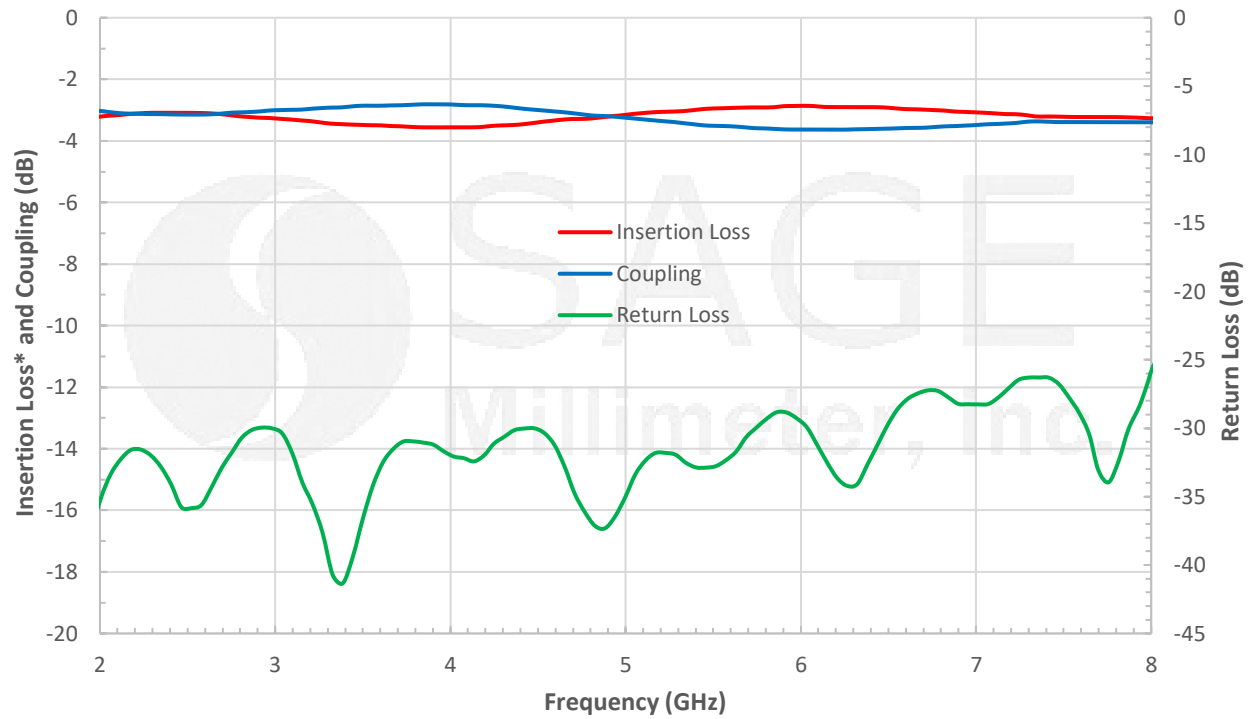
### Mechanical Specifications:

Item	Specification
Input/output Ports	SMA Female
Case Material	Aluminum
Finishing	Epoxy Paint
Weight	6 Oz
Outline	CZ-SS-SR5



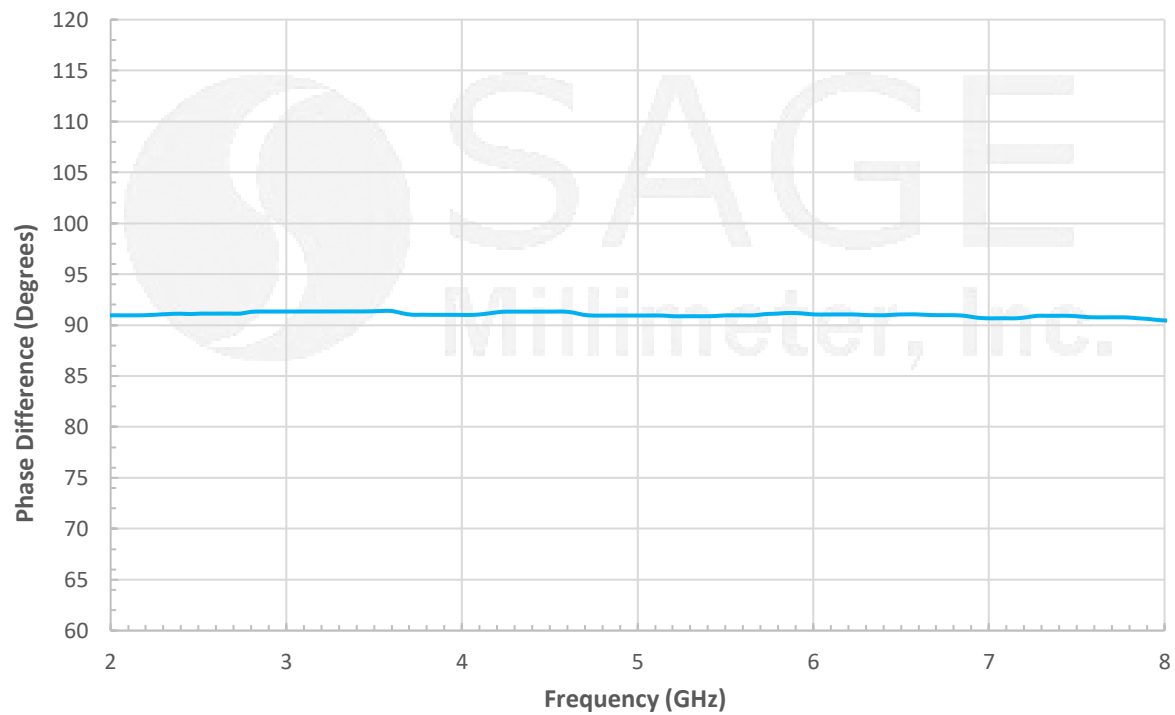
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Typical Performance vs. Frequency



\*Insertion loss includes circuit loss.

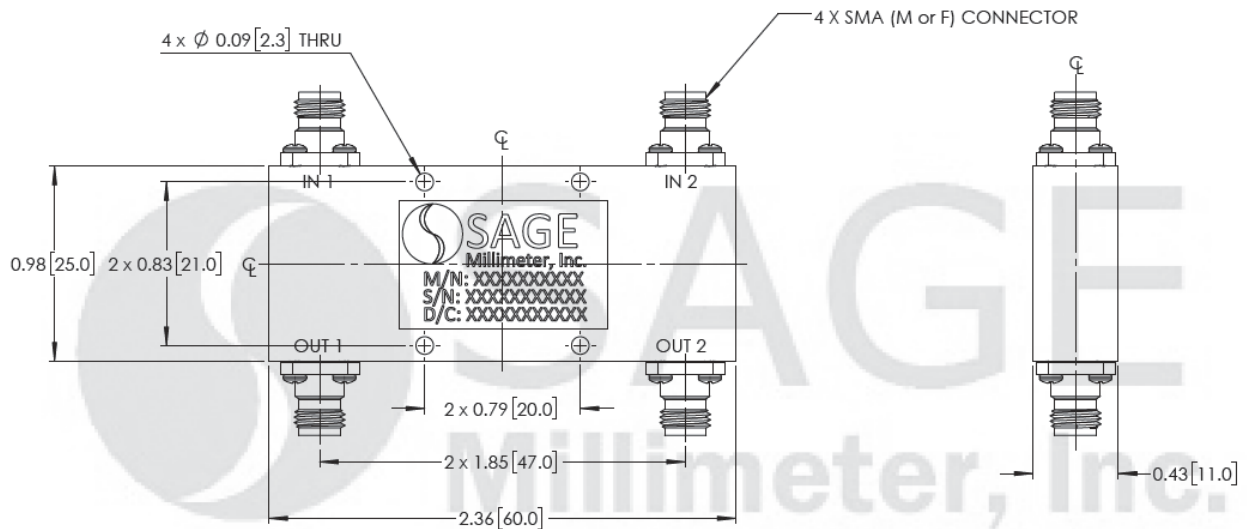
Typical Phase Difference vs. Frequency





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**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:**

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

