



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 GHz | | 8 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 |

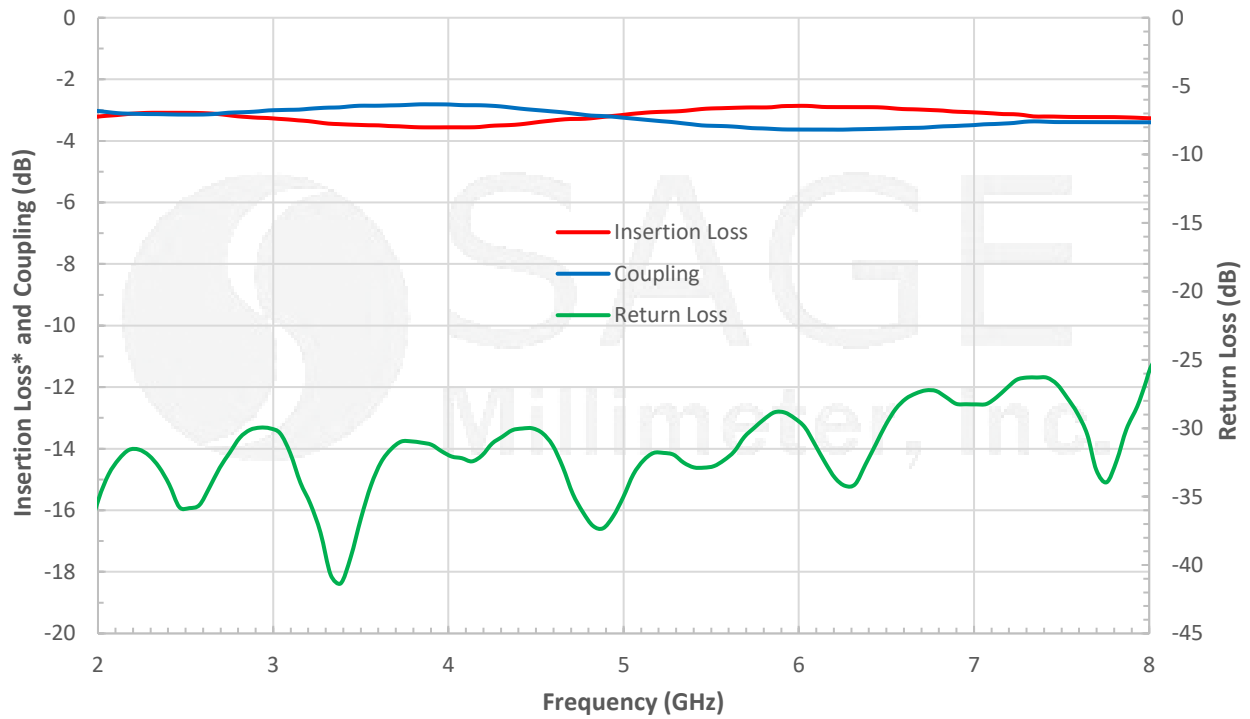
Mechanical Specifications:

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



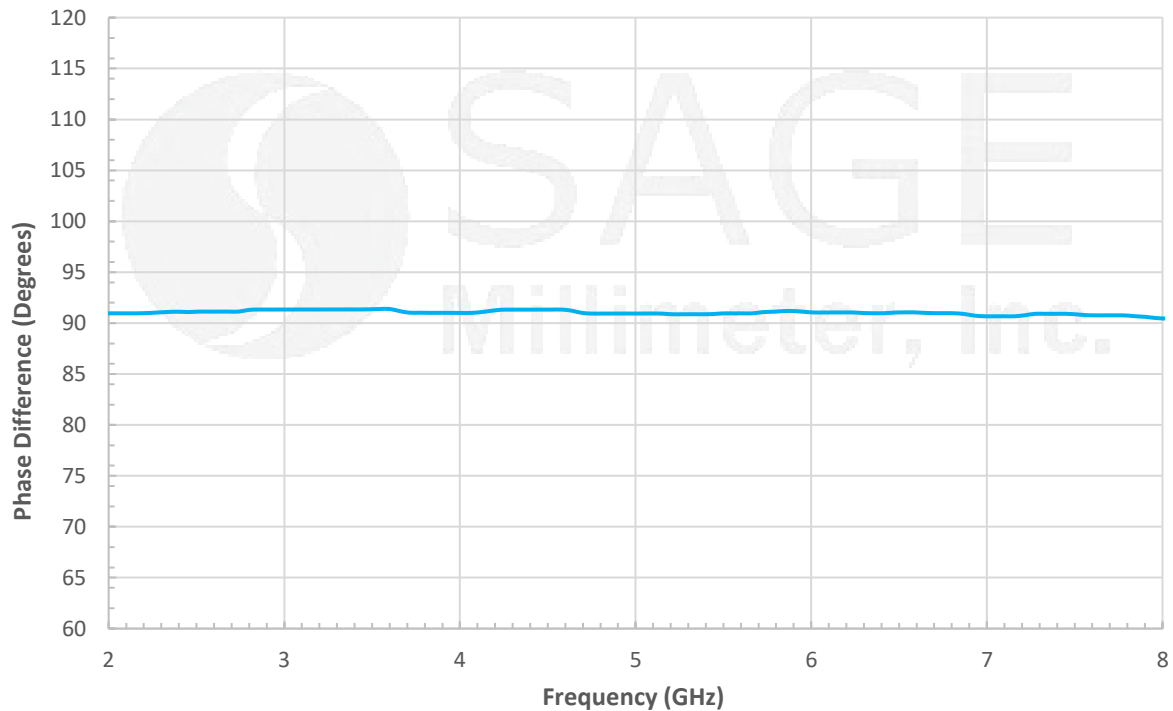
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Typical Performance vs. Frequency



*Insertion loss includes circuit loss.

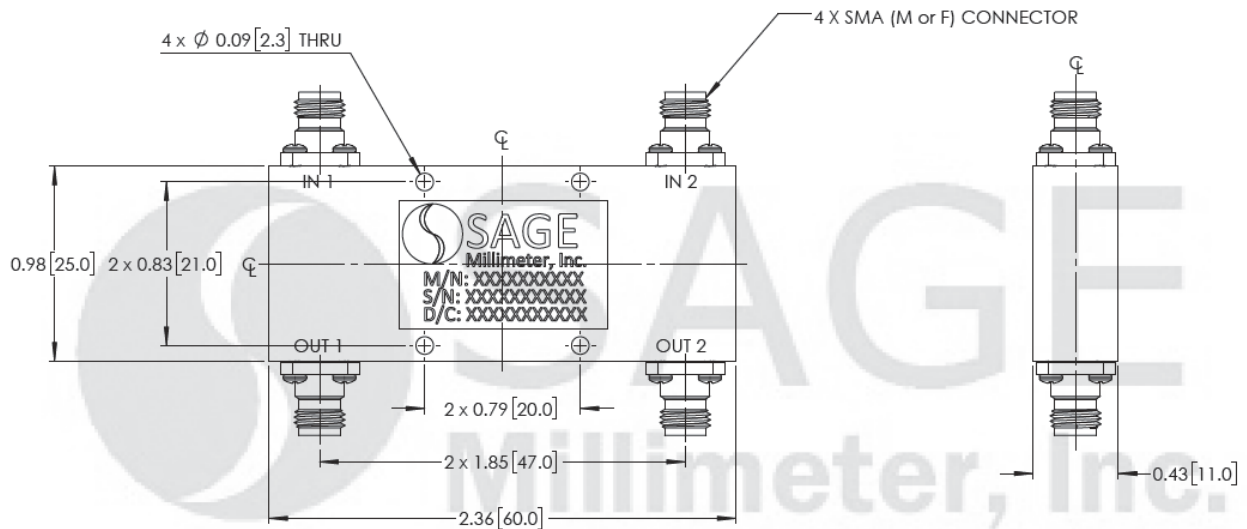
Typical Phase Difference vs. Frequency





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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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-U3, is highly recommended.**

