



8-Way Coaxial Power Splitter, 12.4 to 18 GHz

Description:

Model SCS-1231831616-SFSF-82 is a coaxial 8-way power splitter with a typical insertion loss of 1.6 dB at each output port and a typical isolation of 16 dB across the frequency range of 12.4 to 18 GHz. The power splitter has a nominal power handling of 30 W (CW) and a typical amplitude unbalance of ± 0.8 dB. The return loss for all ports is 11 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 | 12.4 GHz | | 18 GHz |
| Insertion Loss* | | 1.6 dB | |
| Amplitude Unbalance | | ± 0.8 dB | |
| Phase Unbalance | | $\pm 6.0^\circ$ | |
| Port Isolation | | 16 dB | |
| Return Loss | | 11 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.

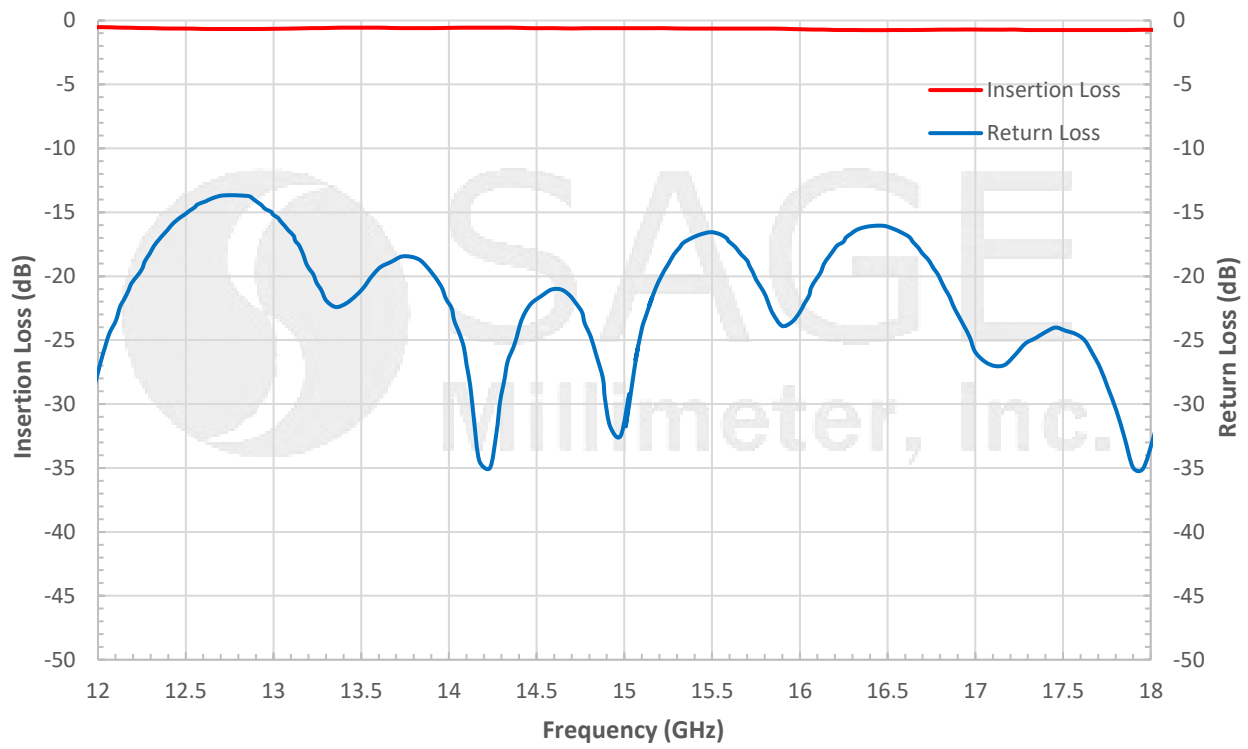
Mechanical Specifications:

| Item | Parameter |
|---------------|-----------------------------------|
| RF Connectors | SMA (F) |
| Case Material | Aluminum |
| Finish | Black Paint |
| Size | 4.00" (L) x 2.27" (W) x 0.39" (H) |
| Outline | CS-X8-SR1 |

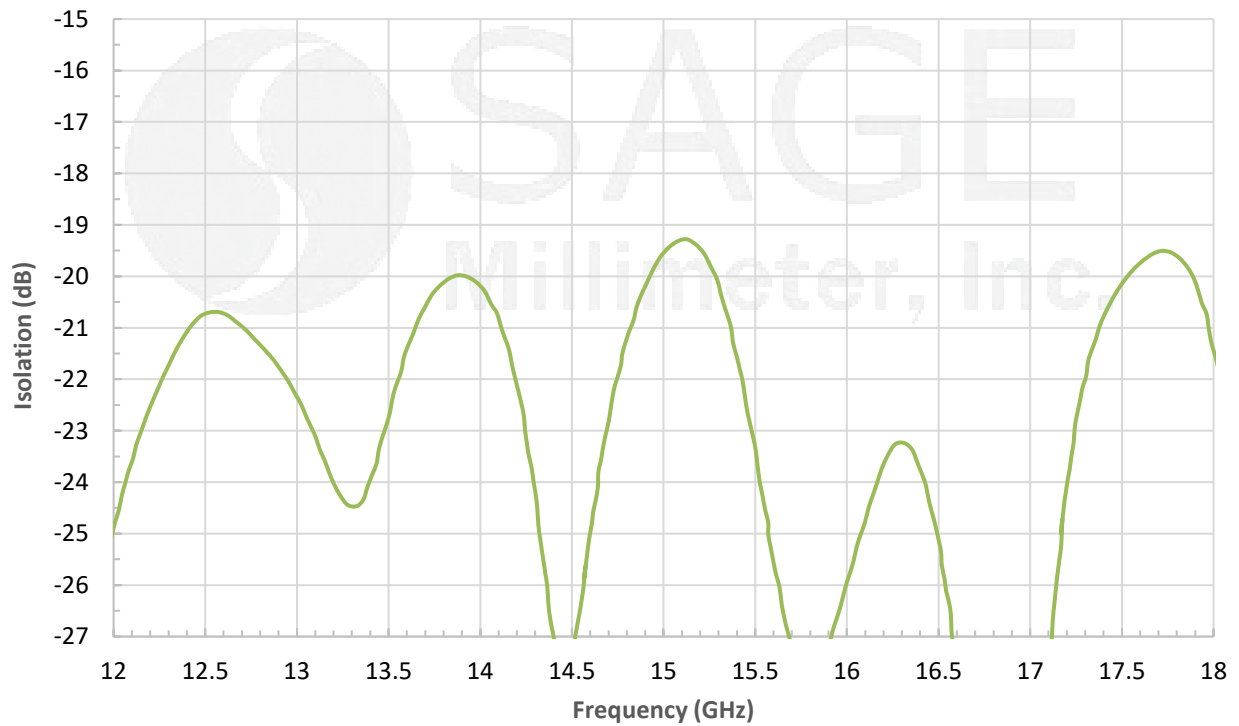


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Typical Performance vs. Frequency

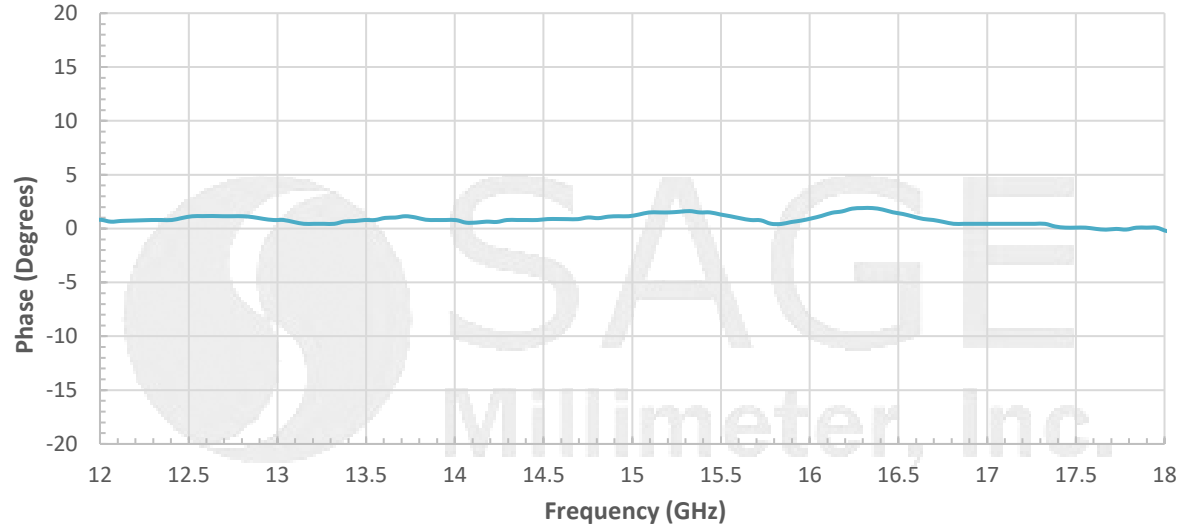


Typical Isolation vs. Frequency

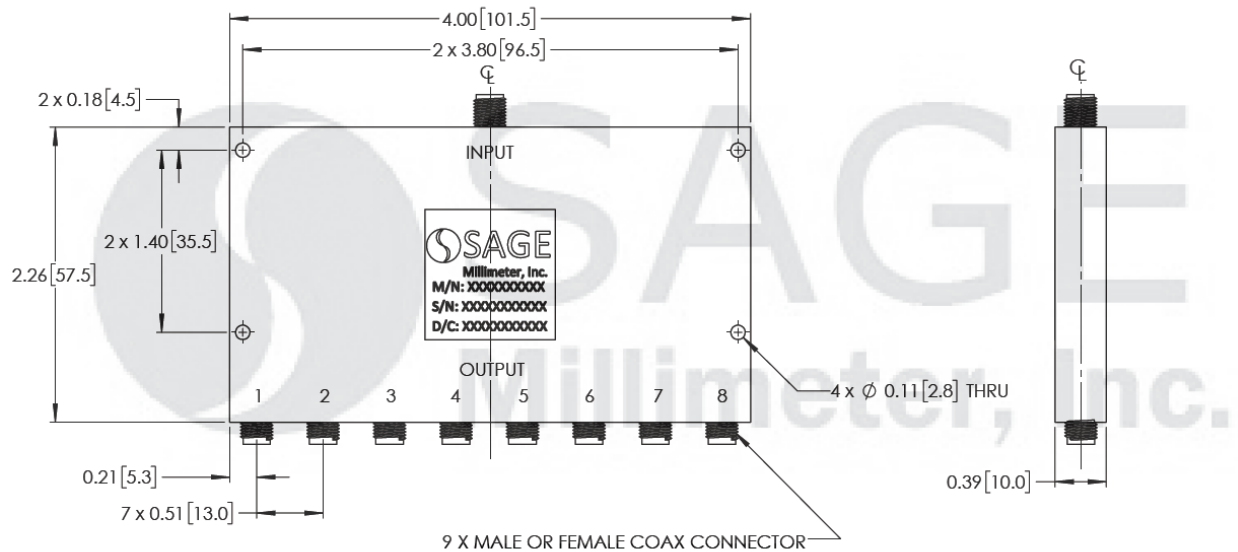


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Typical Phase Unbalance vs. Frequency



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.

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- 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.**

