



Coaxial Directional Coupler, 18 to 50 GHz, 10 dB Coupling Level

Description:

SCD-1835031010-2F-SA is a 10 dB coaxial directional coupler that covers the frequency range of 18 to 50 GHz. The nominal insertion loss of the coupler is 2.2 dB and the coupling ripple is ± 1.2 dB. The directivity of the coupler is 10 dB. The RF connectors of the coupler are 2.4 mm female 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:

- Low Insertion Loss
- Flat Coupling Level

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|---------|--------------|-----------|
| Frequency | 18 GHz | | 50 GHz |
| Insertion Loss | | 2.2 dB | |
| Coupling | | 10 dB | |
| Coupling Flatness | | ± 1.2 dB | |
| Directivity | | 10 dB | |
| Port Return Loss | | 10 dB | |
| Impedance | | 50 Ω | |
| Power Handling | | | 50 W (CW) |
| Specification Temperature | | +25 °C | |
| Operating Temperature | -40 °C | | +80 °C |

Mechanical Specifications:

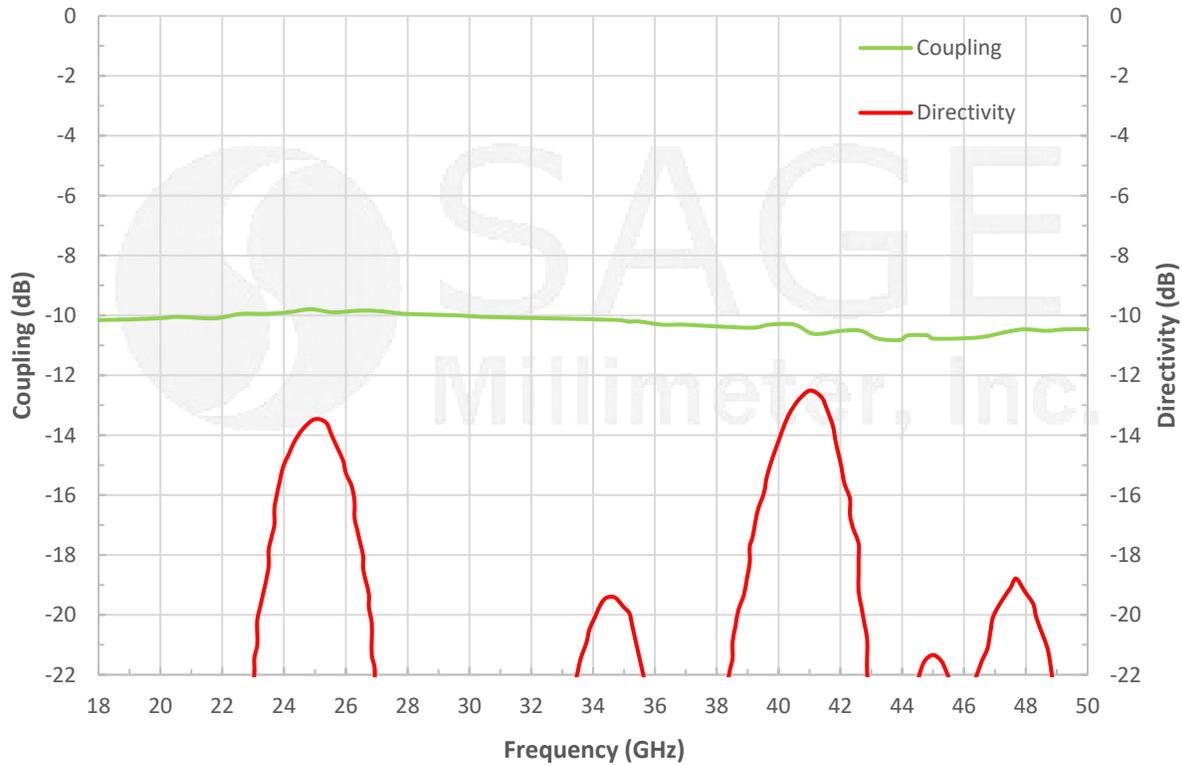
| Item | Specification |
|---------------|---------------|
| RF Ports | 2.4 mm Female |
| Case Material | Aluminum |
| Finishing | Black Painted |
| Weight | 0.9 Oz |
| Outline | CD-2S-SR2 |



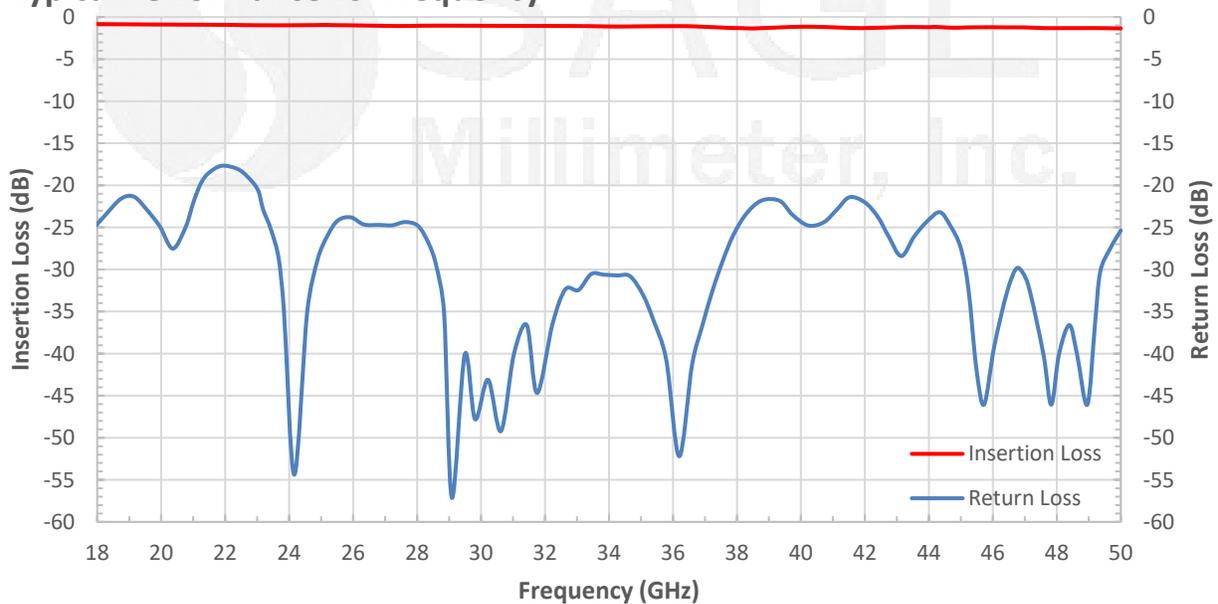


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Typical Coupling and Directivity vs Frequency



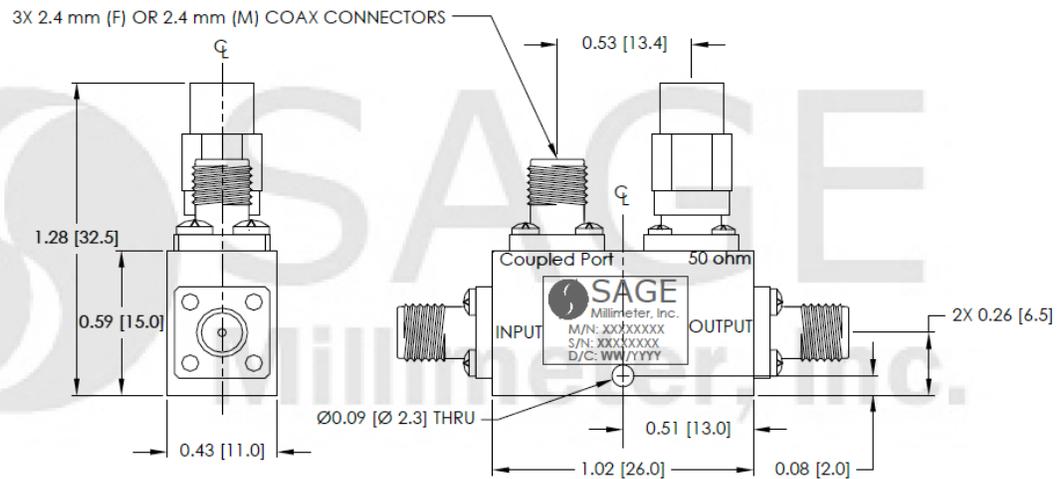
Typical Performance vs. Frequency





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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.
- 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) shall be used. **Eravant torque wrench with model number [SCH-08008-S1](#) is highly recommended.**

