



## Coaxial Directional Coupler, 1 to 40 GHz, 10 dB Coupling Level

### Description:

**SCD-0134031010-KF-SA** is a 10 dB coaxial directional coupler that covers the frequency range of 1 to 40 GHz. The nominal insertion loss of the coupler is 2.1 dB and coupling ripple is  $\pm 1.0$  dB. The directivity of the coupler is 10 dB. The RF connectors of the coupler are K (F) 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	1.0 GHz		40 GHz
Insertion Loss		2.1 dB	
Coupling		10 dB	
Coupling Flatness		$\pm 1.0$ dB	
Directivity		10 dB	
Port Return Loss		12 dB	
Impedance		50 $\Omega$	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+80 °C

### Mechanical Specifications:

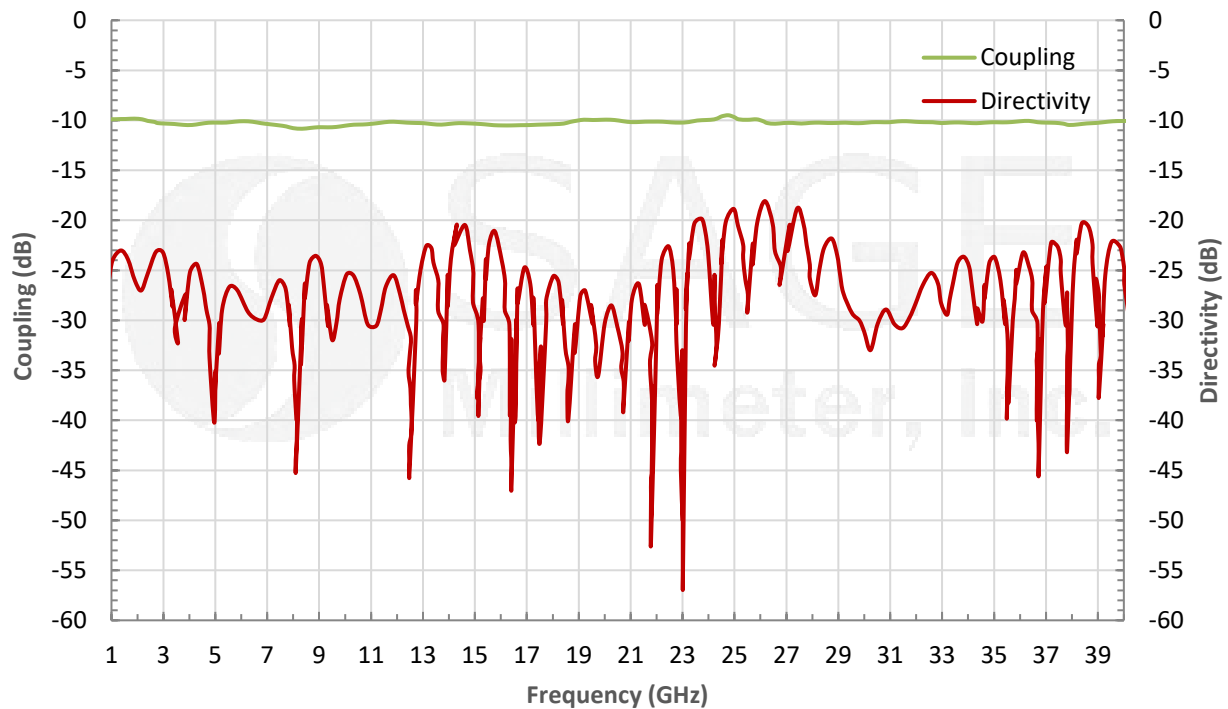
Item	Specification
RF Ports	K(F)
Case Material	Aluminum
Finishing	Black Painted
Weight	1.0 Oz
Size	3.31" (L) x 0.59" (W) x 0.43" (H)
Outline	CD-KS-SR10



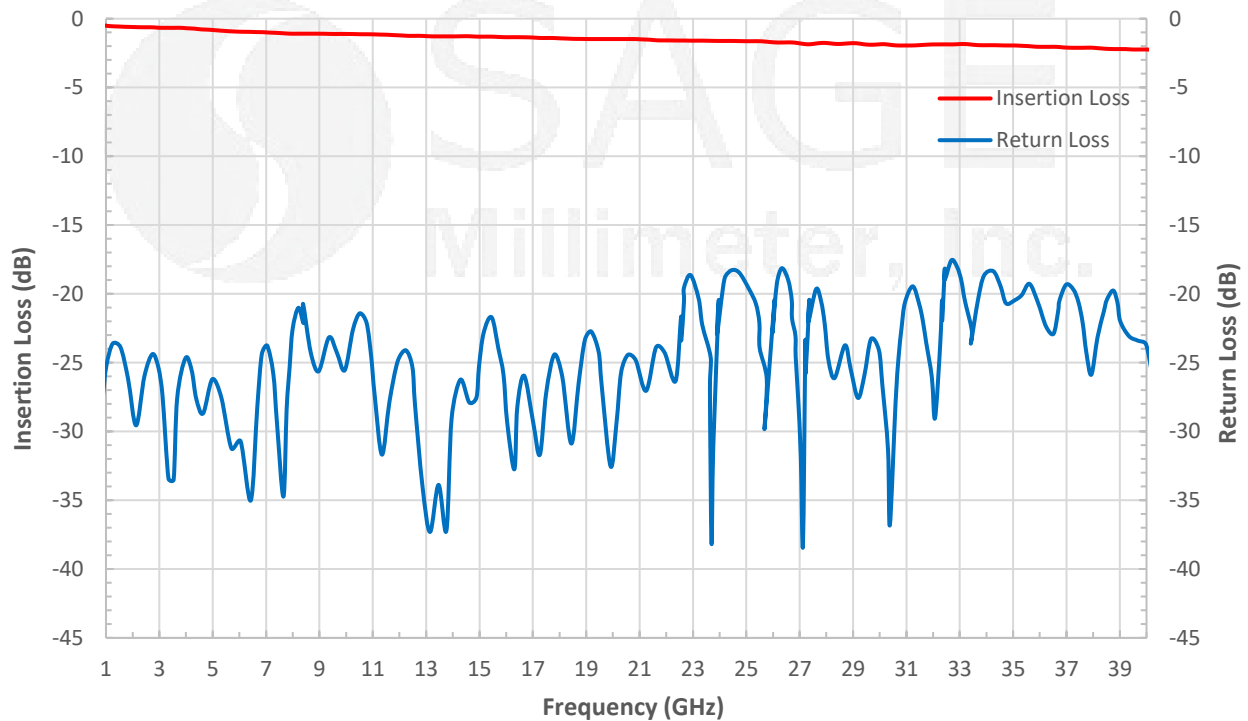


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### Typical Coupling and Directivity vs. Frequency



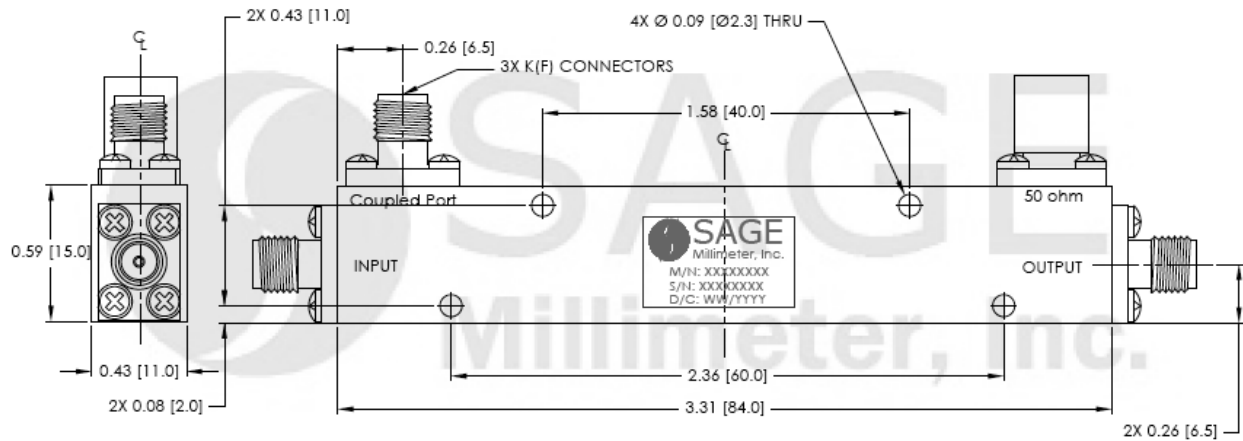
### Typical Performance vs. Frequency





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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.
- 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) shall be used. **SAGE Millimeter torque wrench with model number SCH-08008-U3 is highly recommended.**

