

## SCZ-1834031209-KFKF-46-AL

### Coaxial Hybrid Coupler, 18 to 40 GHz, 90 Degrees Thermal Vacuum Safe

**SCZ-1834031209-KFKF-46-AL** is a coaxial 90-degree, thermal vacuum safe, hybrid coupler that covers the frequency range of 18 to 40 GHz. The nominal coupling is 3 dB and the typical insertion loss is 2.0 dB. The typical isolation of the coupler is 12 dB. The RF connectors of the coupler are female 2.92 mm (K) 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.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	18 GHz		40 GHz
Insertion Loss		2.0 dB	
Isolation		12 dB	
Coupling		3 dB	
Return Loss		14 dB	
Amplitude Unbalance		$\pm 0.8$ dB	
Phase Unbalance		$\pm 10^\circ$	
Impedance		50 $\Omega$	
Power Handling			50 W (CW)
Specification Temperature		+25 $^\circ\text{C}$	
Operating Temperature	-45 $^\circ\text{C}$		+85 $^\circ\text{C}$

#### Mechanical Specifications:

Item	Specification
Input/Output Ports	2.92 mm (K) Female
Case Material	Aluminum
Finish	Chem Film, Yellow
Weight	0.8 Oz
Outline	CZ-KK-AL-FI2

#### ECCN

EAR99

#### FEATURES

- Broad Band
- Low Insertion Loss
- Flat Coupling Level
- Thermal Vacuum Safe

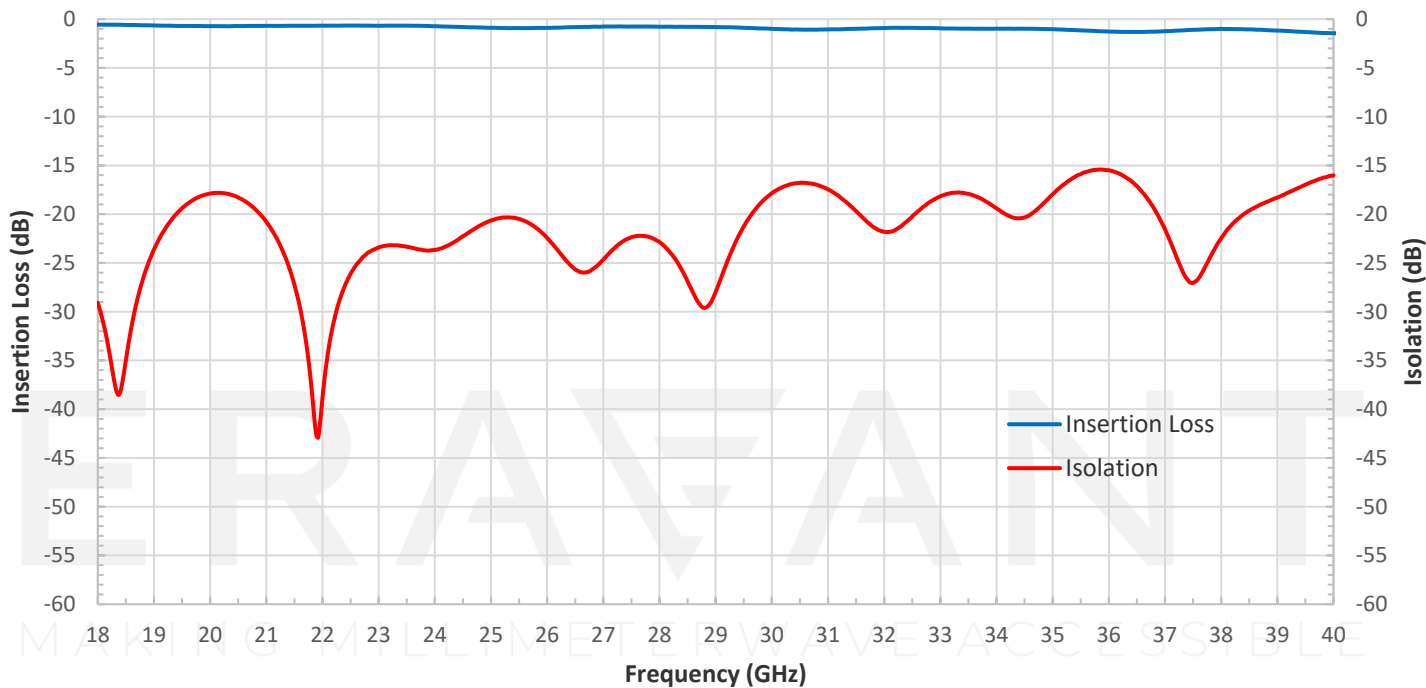
#### APPLICATIONS

- Test Labs
- Instrumentations
- Sub-assemblies

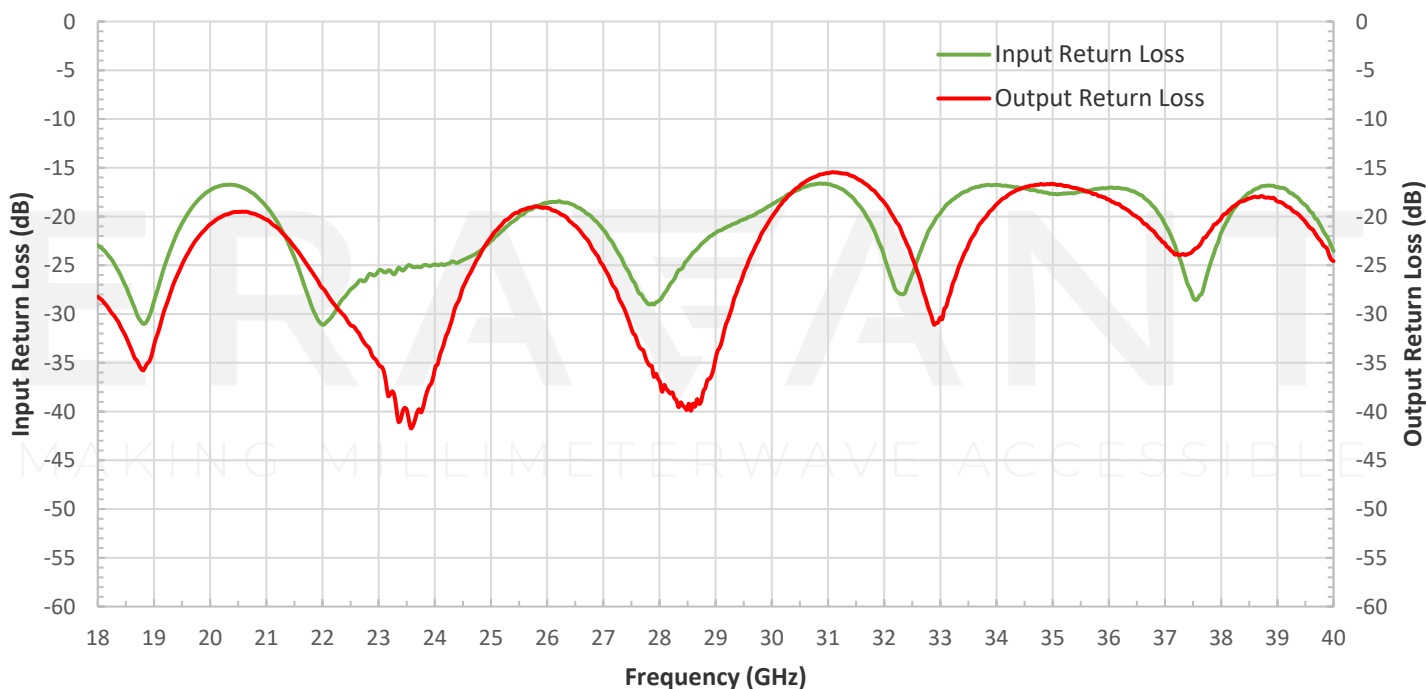
#### SUPPLEMENTAL DETAILS



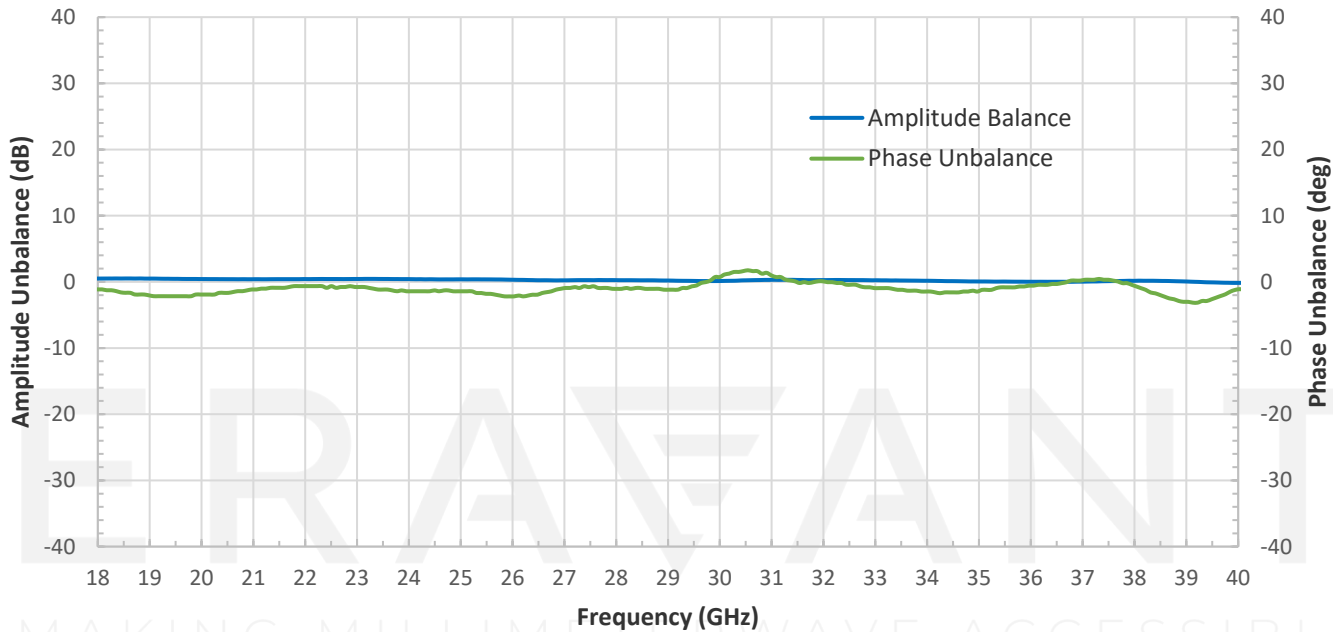
Typical Insertion Loss and Isolation vs. Frequency



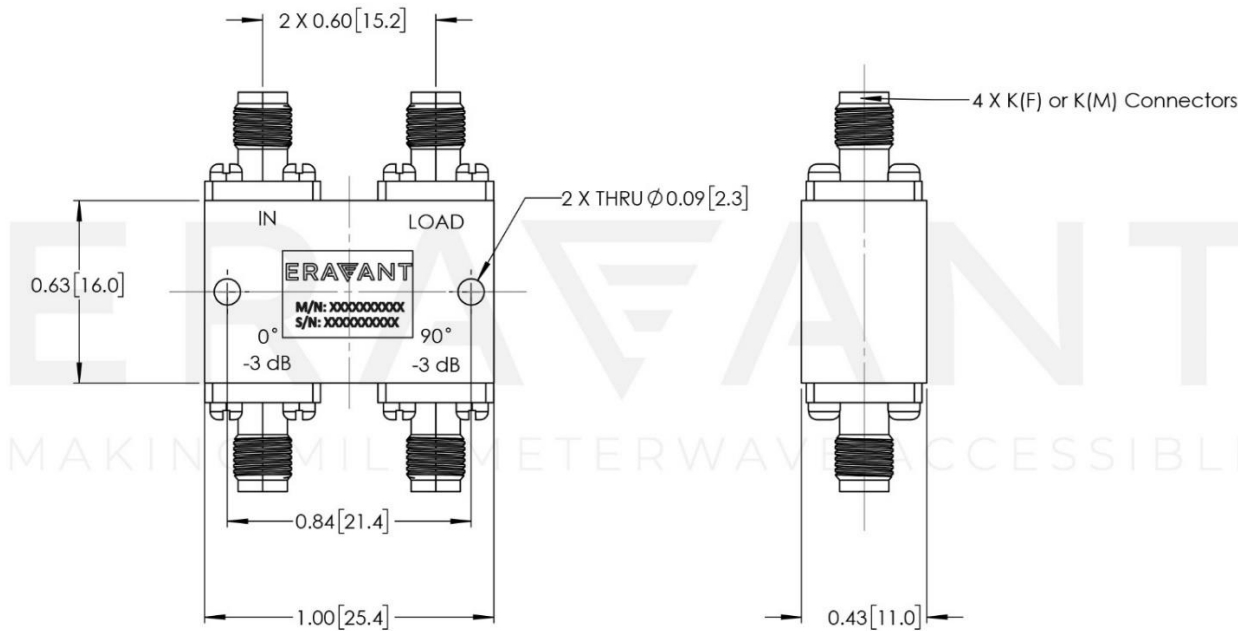
Typical Return Loss vs. Frequency



Amplitude and Phase Unbalance vs. Frequency



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



**NOTE:**  
Use 3M™ Scotch-Weld™ Epoxy Adhesive 2216 Gray,  
staking epoxy on the heads of all the fasteners for the chem-film couplers,  
including the connector fixing screws

**NOTE:**

- All data presented is collected from a sample lot. Actual data may vary slightly from unit to unit.
- All testing is performed under +25 °C case temperature.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- Exceeding absolute maximum ratings shown will damage the device.
- Proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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