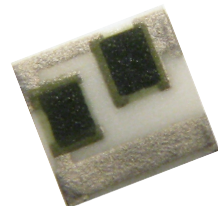


IMK Series Surface Mount Thick Film Coupler



ims IMK Series Resistive Couplers provide the sensing function over a broad range of frequencies in a compact, easy to use component. With alumina construction, insertion loss is comparable to more complicated frequency sensitive couplers.

As with IMS attenuators, the IMK Series is engineered to optimize performance in two ways:

- 1) Resistive areas are constant and are specified for the lowest dB value ensuring that all couplers easily handle the incident RF power.
- 2) High inductance lines minimize ground path leakage and maintain low through loss.

The above constraints assure repeatability, reliability and optimal performance. The design and construction of these couplers is simplified to minimize cost and maximize efficiency.

IMK Series Specifications

Insertion Loss (ports 1 - 2):	1dB or less (values greater than 18dB)
Coupling Range:	6 - 30dB
Standard Size:	0.120" x 0.120" x 0.035" MAX
Impedance:	50Ω
Operating Frequency:	DC - 20GHz
dB Flatness:	See data on following pages
Operating Temperature:	-55°C to 150°C
Dissipated Power:	1W at 100°C Baseplate Temperature
VSWR (main line):	1.2:1 depending on implementation
Construction:	Thick Film on Alumina
Attachment:	Solder, Epoxy or Wirebond*



To
30dB

1W
Dissipated Power

Low Loss

Wideband

Recommended Through Line Power Should Not Exceed 6W

Ordering Information

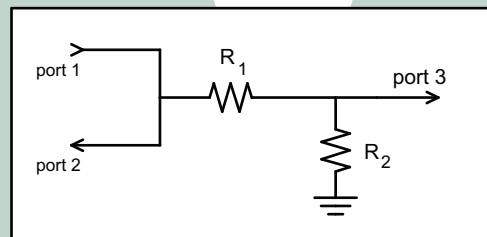
IMK2549-XXDB

PN Prefix*

IMK2549 ✓
IMK2550 ✓
IMK2574 ✓
IMK2575 ✓

dB Value (06-30)

IMK Series Electrical Schematic



(required 50Ω impedances not shown)

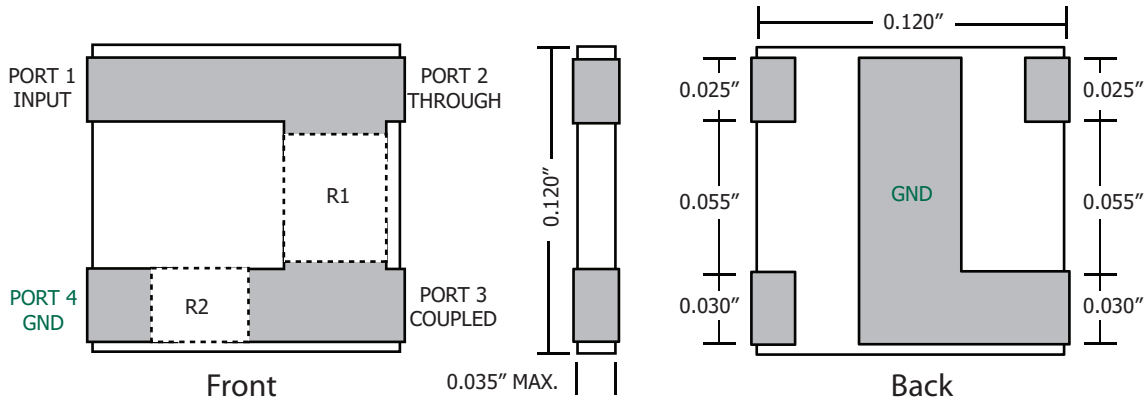
ims International
Manufacturing
Services, Inc.

Tel (401) 683-9700
Fax (401) 683-5571
e-mail: ims@ims-resistors.com
<http://www.ims-resistors.com>

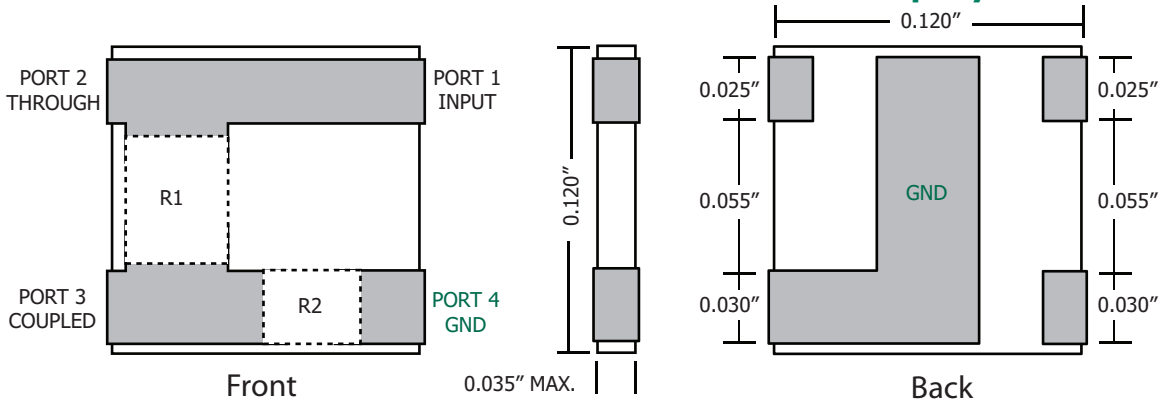
* See next page for configurations and attachment options
✓ Indicates RoHS Compliance

impossible made simple

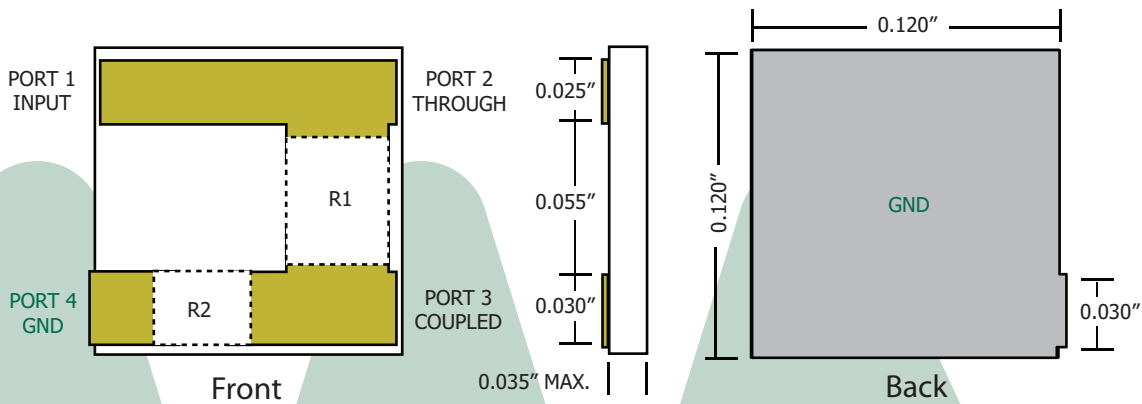
IMK2549 Dimensions - Forward Version for Solder or Epoxy Attachment



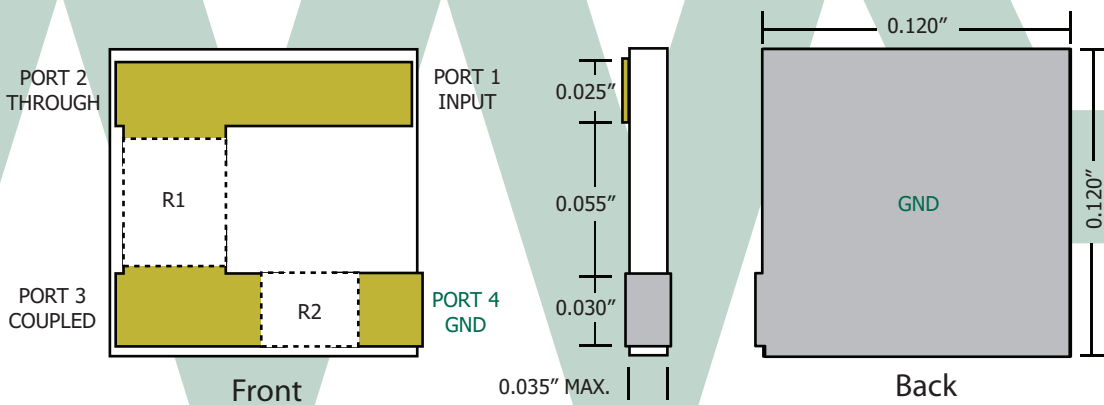
IMK2550 Dimensions - Reverse Version for Solder or Epoxy Attachment



IMK2574 Dimensions - Forward Version for Wirebond



IMK2575 Dimensions - Reverse Version for Wirebond



IMK2574 & IMK2575 feature Single-Sided Gold Wirebondable Terminals on Ports 1-3. Port 4 (GND) Wraps to Solder or Epoxyable Backplane.



Tel (401) 683-9700
 Fax (401) 683-5571
 e-mail: ims@ims-resistors.com
<http://www.ims-resistors.com>

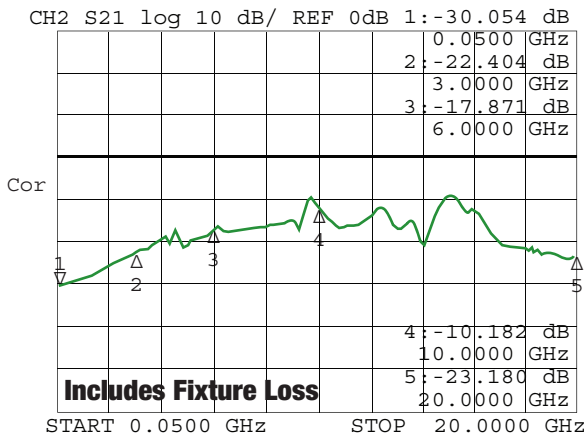
DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY.
 DETAILED DIMENSIONAL INFORMATION AVAILABLE FROM FACTORY

Ver 2 1/2011 Specifications Subject to Change Without Notice

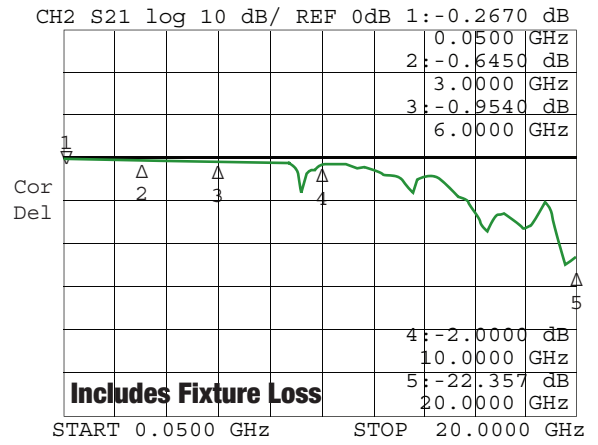
Visit us on the web!
www.ims-resistors.com

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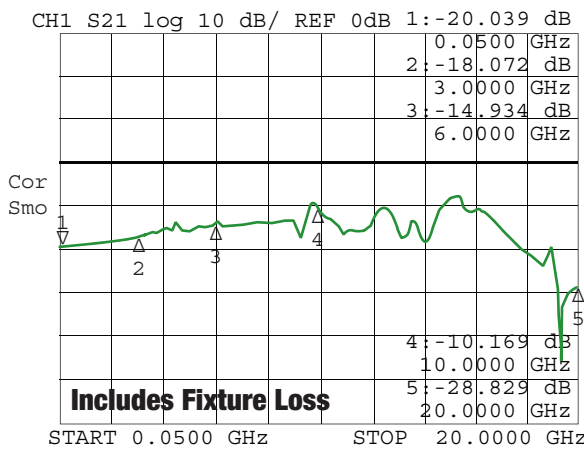
IMK2549-30DB Coupling



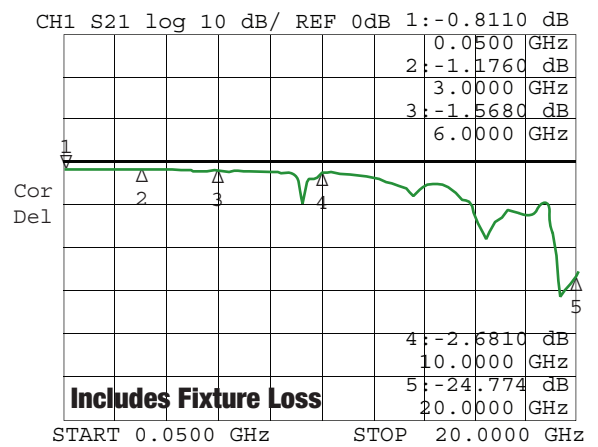
IMK2549-30DB Measured Insertion Loss



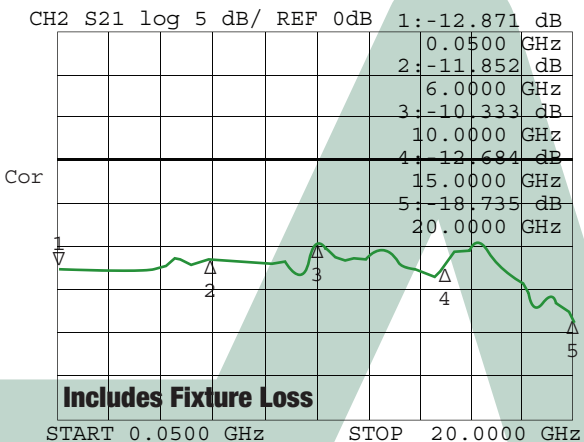
IMK2549-20DB Coupling



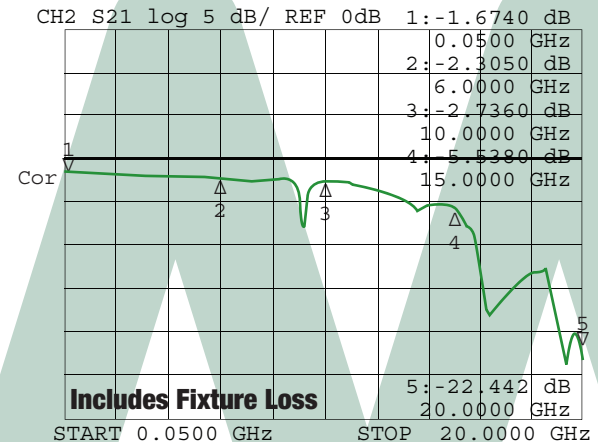
IMK2549-20DB Measured Insertion Loss



IMK2549-13DB Coupling



IMK2549-13DB Measured Insertion Loss



Fixture loss was approximately 0.4dB at 6GHz, 0.8dB at 10GHz and 1.6dB at 15GHz.

The above illustrations of corrected data reflect performance of a IMK2549 coupler mounted in a matched continuous 50Ω system of duroid construction and SMA to microstrip transitions. Typically Insertion Loss improves with increasing nominal dB value.

Actual full-size response plots are available online at www.ims-resistors.com/resistive_coupler.html



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