

DC- 40 GHz Flip Chip Resistive Divider

PDR06380

www.knowlesc capacitors.com

DESCRIPTION

A flip chip resistive divider ideal for applications where small size and broad band performance are critical for success. This component is ideal for test and measurement and optical applications. The divider is provided with all pads ENIG plated for solder surface mount integration.

Packaging and Ordering Information: To request Tape and Reel packaging, please order part number PDR06380T, see additional data on page 6.

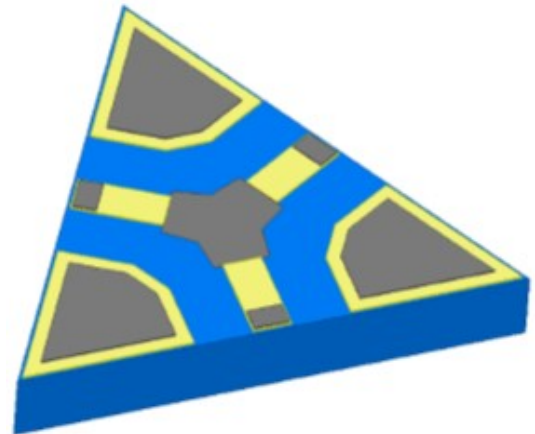
FEATURES

- Small Size
- Frequency Stable over Temperature
- Flip Chip Solder Surface Mountable
- Moisture Sensitivity Level: MSL1
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

SPECIFICATIONS*

Parameter	Frequency	Min	Typ	Max
Excess Insertion Loss (dB)	DC - 40GHz		0.5dB	1dB
Return Loss (dB)	DC - 30GHz	20dB	25dB	
	30-40GHz	10dB	15dB	
Size (LxWxH)		0.075 x 0.065 x 0.010 in 1.905 x 1.651 x 0.254 mm		

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ± 0.5 dB over temperature.



2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

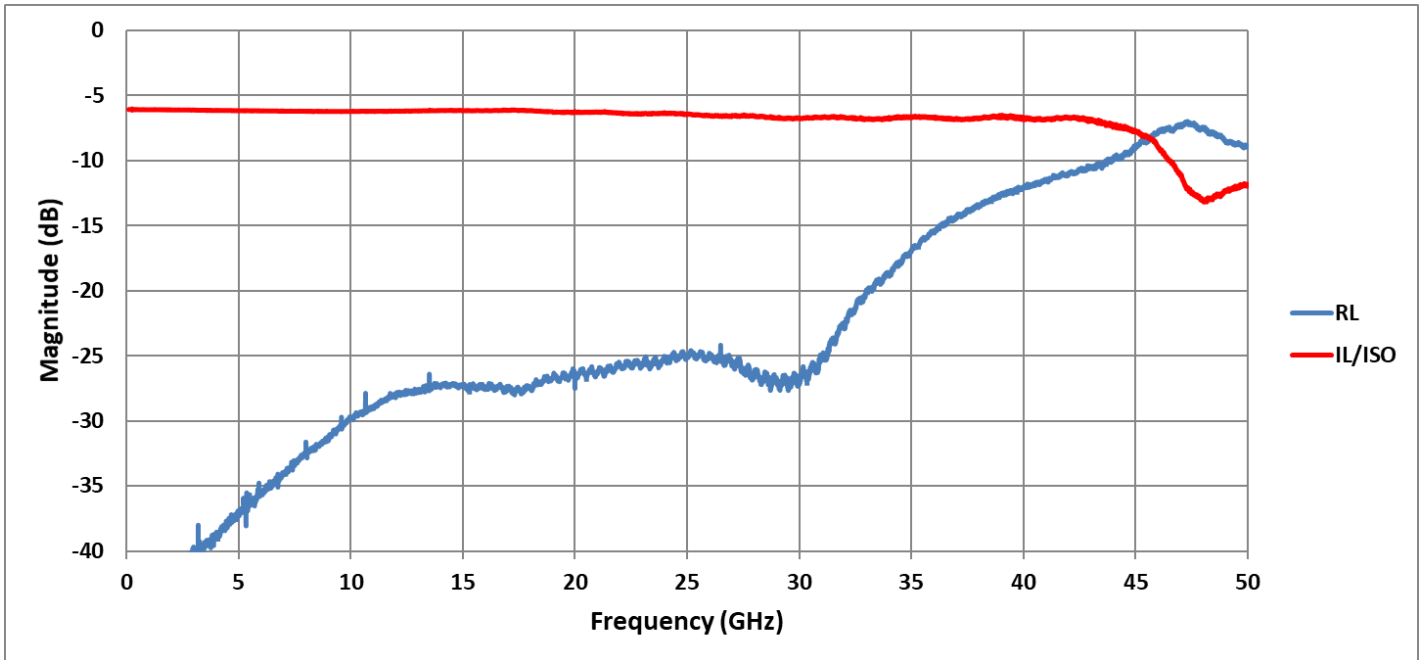
To Order Contact KCCSales@knowles.com | For Technical Inquiries Contact DLengineering@knowles.com

DC- 40 GHz Flip Chip Resistive Divider

PDR06380

www.knowlescapacitors.com

Typical Measured Performance



*Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.010in RO4350B with 50.0Ohm CPW ground traces going into the ports at room temperature.

2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

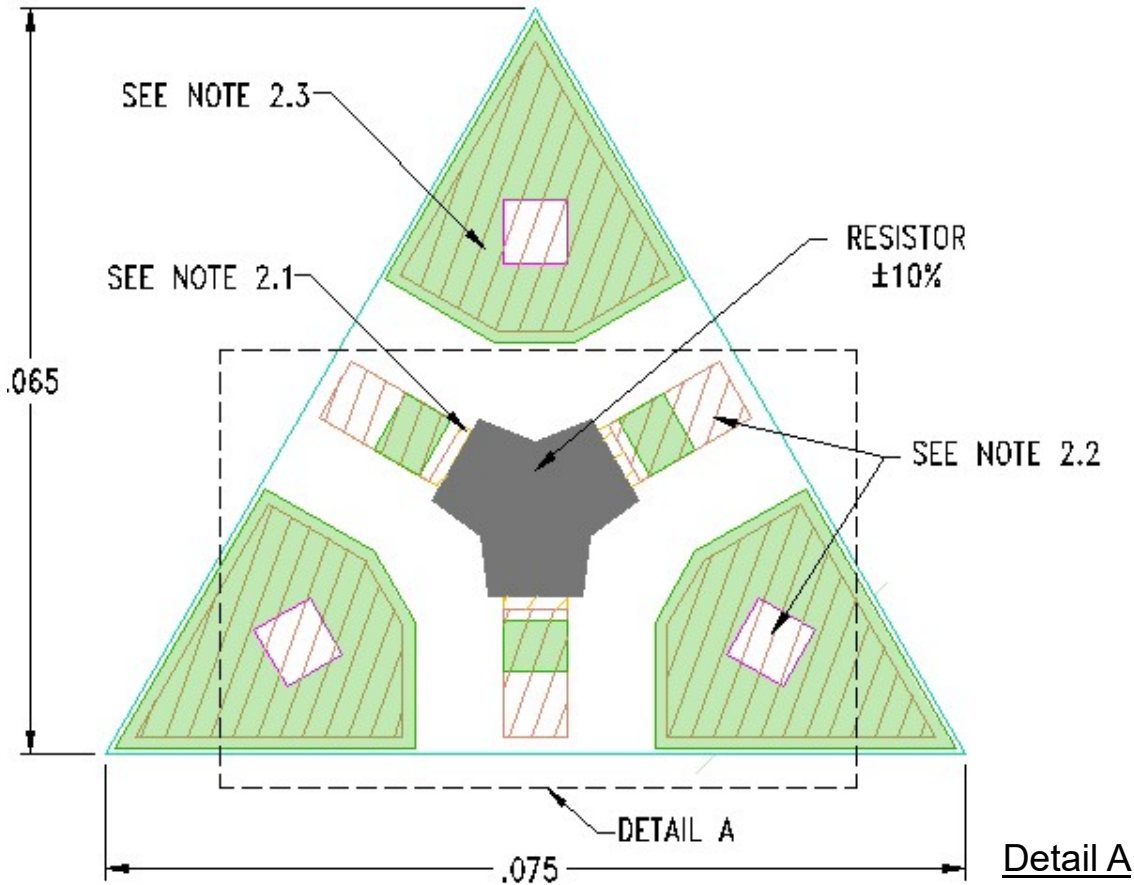
To Order Contact KCCSales@knowles.com | For Technical Inquiries Contact DLengineering@knowles.com

DC- 40 GHz Flip Chip Resistive Divider

PDR06380

www.knowlescapacitors.com

Detailed Physical Dimensions

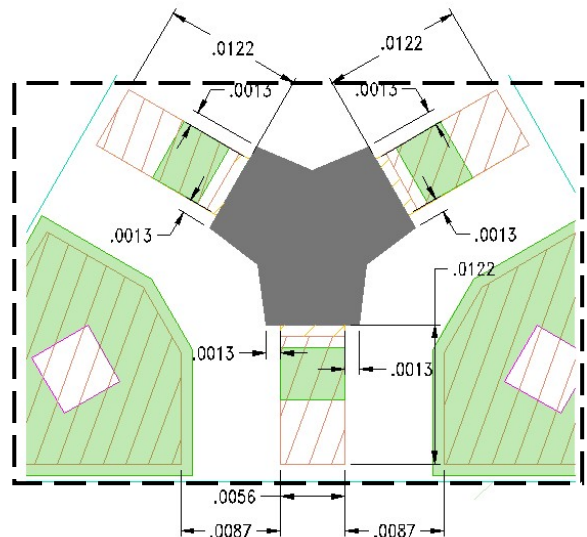


Notes :

1. Maximum Assembly Process Temperature: 250°C
- 2.1 and 2.2 Mounting Surface Metallization:
ENIG: 3 - 6 μinch Au over 50 μinch Ni
- 2.3 Solder Resistant NiOx areas (green)

Tolerances:

- For values with 3 decimal places ±0.001
- For values with 4 decimal places ±0.0005



2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

To Order Contact KCCSales@knowles.com | For Technical Inquiries Contact DLIengineering@knowles.com

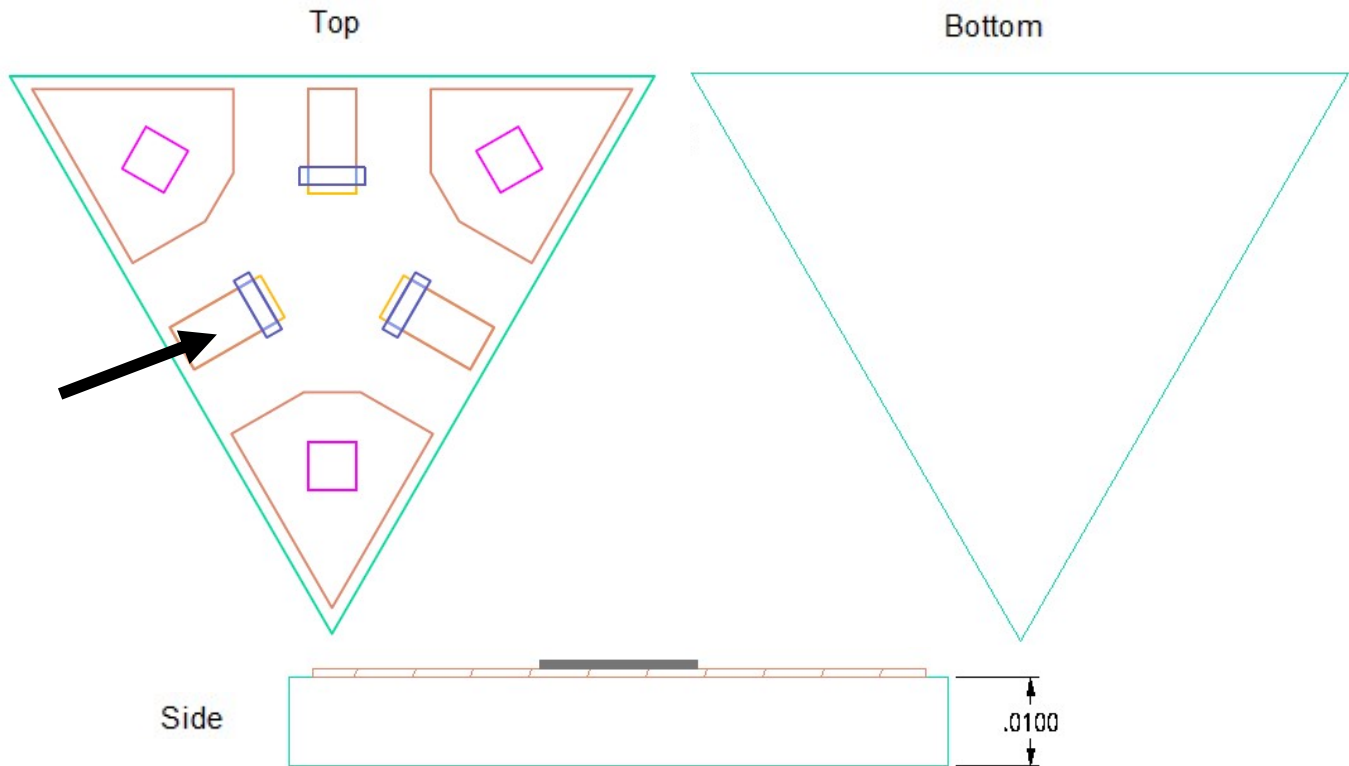
DC- 40 GHz Flip Chip Resistive Divider

PDR06380

www.knowlescapacitors.com

Notes on Part Configuration - Considerations for Stencil Design

Units = inches



This part is mounted with the **Top** side attached to PCB.

Critical areas to solder are as follows:

IOs: Areas in the middle of each side - Indicated with an arrow

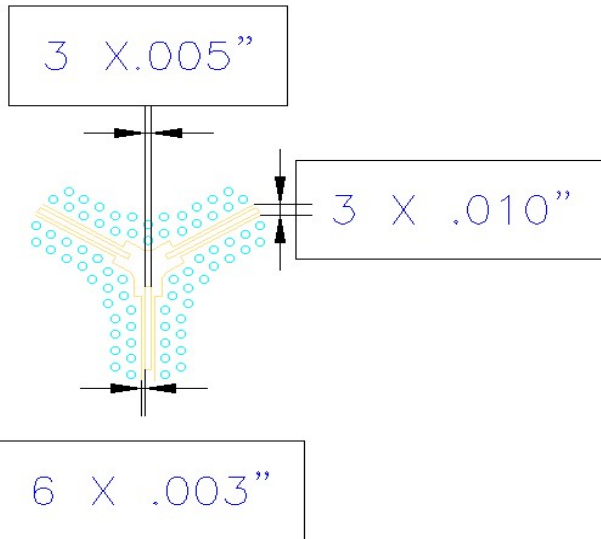
Grounding Pads: Squares in corners (in magenta)

Solder stencil apertures should align with all 6 areas and may need dimensions larger than the pads to facilitate consistent solder deposition, depending on chosen stencil thickness. Since the surrounding areas are resistant to solder, the connection will be constrained to the pad. Excess solder is a concern, so best practice is to choose the smallest aperture size with good release in the assembly process.

2777 Route 20 East, Cazenovia, NY 13035| Ph.: (315)655-8710

To Order Contact KCCSales@knowles.com | For Technical Inquiries Contact DLIengineering@knowles.com

Recommended PCB Layout (Unit = inches)



Recommend PCB board :

RF signal is carried on 50.0Ω GCPW trace with the following critical dimensions :

10.0 mil thick Alumina (AL) board

5.0 mil width RF trace (copper)

3.0 mil gap between the RF trace and PCB ground.

Detail: PDR06380 Mounted on Recommend PCB

