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20 to 40GHz 10dB Directional Coupler

FPC07182-Preliminary



DLI•Johanson MFG•Novacap•Syfer•Voltronics

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DESCRIPTION

DLI introduces its new high frequency surface mountable catalog direction couplers. These couplers incorporate DLI's high dielectric ceramic materials which provide small size and minimal performance variation over temperature. The components are well matched for monitoring incident and reflected power.

FEATURES

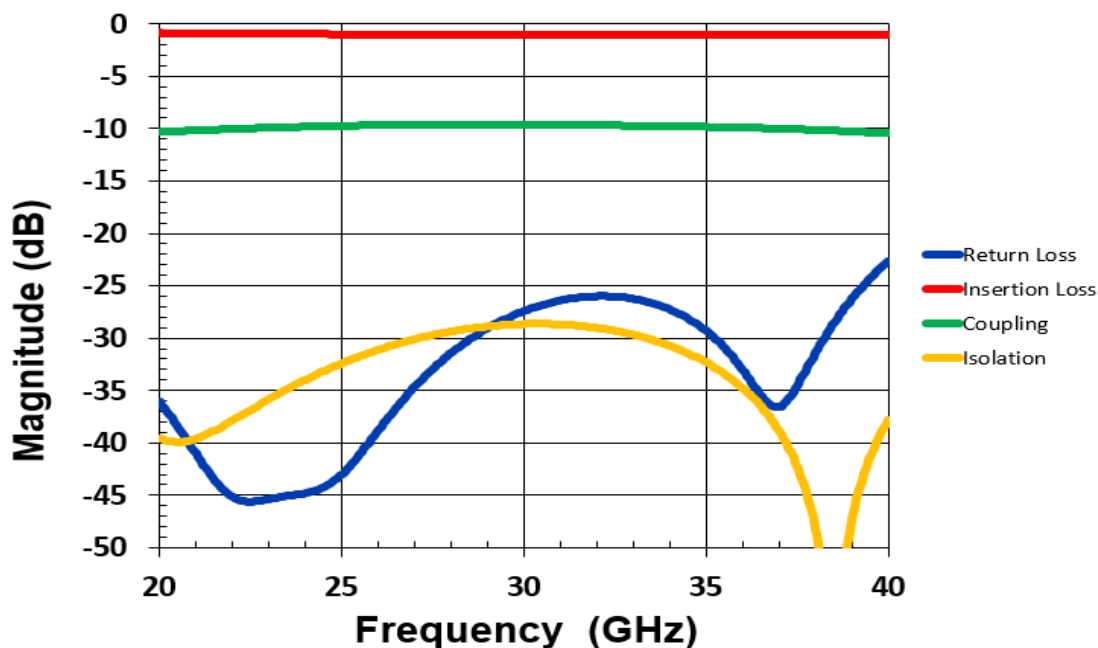
- Small Size
- Frequency Stable over Temperature
- Solder Surface Mountable
- Excellent Repeatability
- Operating Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

SPECIFICATIONS*

Parameter	Frequency (GHz)	Min	Max
Passband Insertion Loss* (dB)	20—40		0.3
Min Passband Return Loss (dB)		14	
Coupling (dB)		8.5	11.5
Directivity (dB)		12	
Size (LxWxH)	0.065 x .050 x .010 in 1.651 x 1.27 x .254mm		

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

Typical Measured Performance



*Typical measured performance mounted on RO4350B test board at 25°C.



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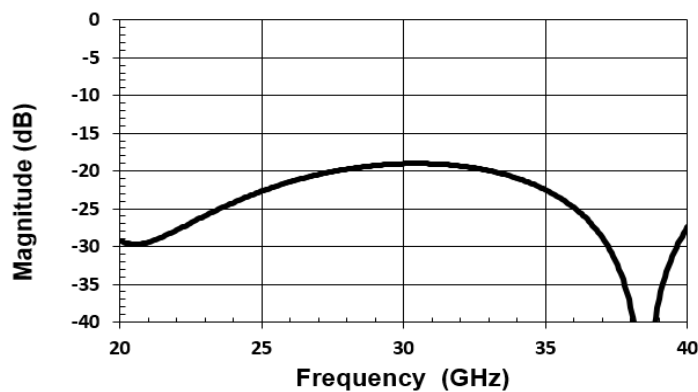


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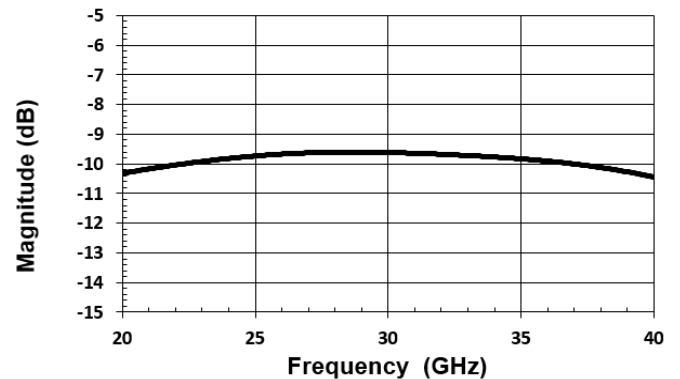
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Directivity

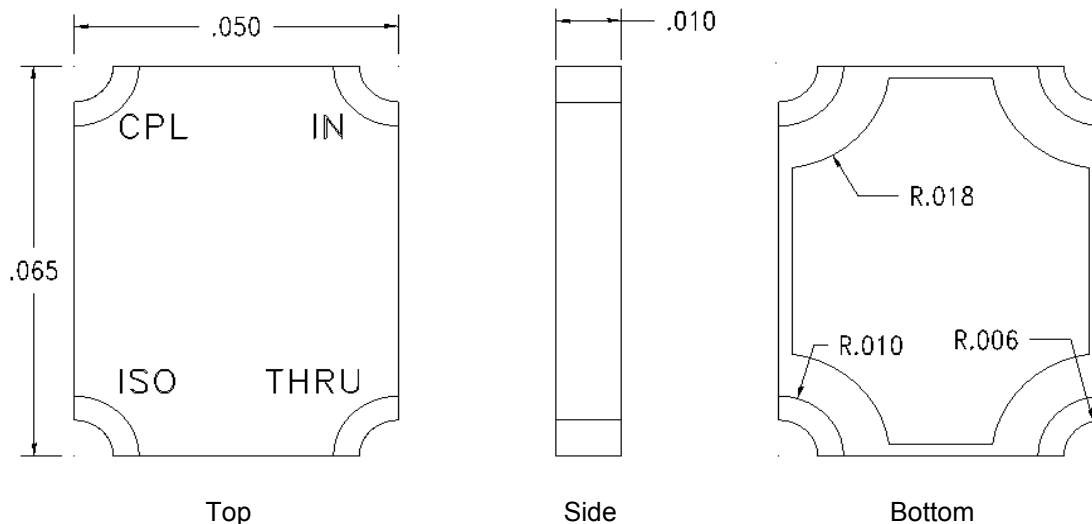


Coupling

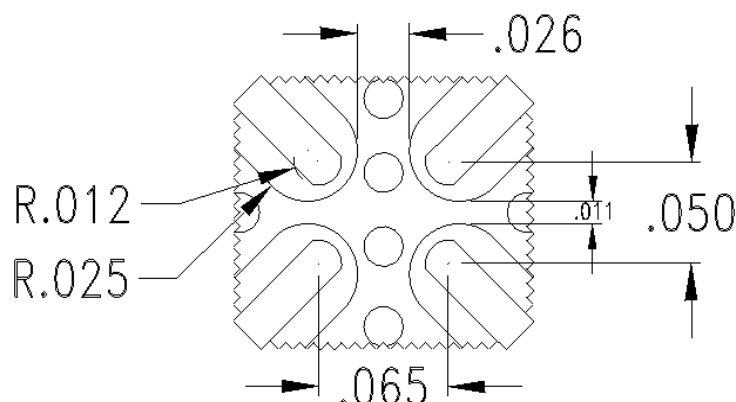


Physical Dimensions

Units = Inches



Recommended PCB Layout



- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.
- Trace feed locations can be horizontal, vertical, or angled.



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May 2015