

2 to 18GHz 10dB WB Directional Coupler

FPC09291

DESCRIPTION

DLI brand wide band wire bond (WB) directional couplers utilize DLI's high dielectric ceramic materials which provide small size and minimal performance variation over temperature.

FEATURES

- Small Size
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω
- For reference, the similar surface mount (SMD) coupler is FPC07234

Packaging and Ordering Information:

To request Tape and Reel packaging, please order part number FPC09291-T

SPECIFICATIONS*

Parameter	Frequency (GHz)	Min	Typ.	Max
Passband Excess Insertion Loss* (dB)	2-18			1.2
Passband Return		10		
Coupling (dB)		10		± 1.5
Directivity (dB)		9	10	11
CW Input Power (W)**				
$\theta_{JC} \left(\frac{^{\circ}\text{C}}{\text{W}} \right)$	7.5			
Size (L x W x H)	0.500 x 0.150 x 0.030 in 12.7 x 3.81 x 0.76 mm			

*Electrical specifications based on typical mounted performance at room temperature. Insertion loss shall vary $\pm 0.5\text{dB}$ over temperature.

** Power rating assumes the component will be mounted to a PCB with good thermally conducting ground vias as outlined in the recommended PCB layout that are connected to an adequate heat sink. Max power is based on 125°C base temperature.



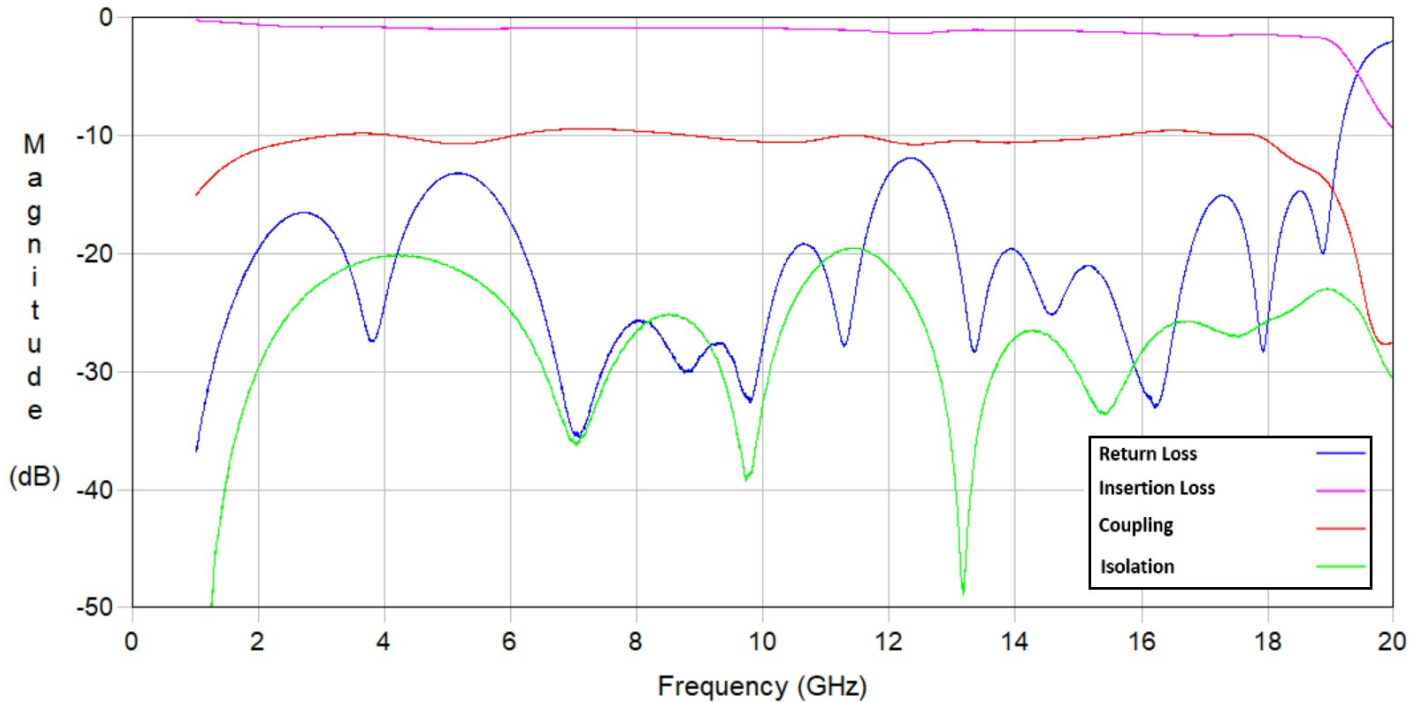
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2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

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

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Typical Measured Performance



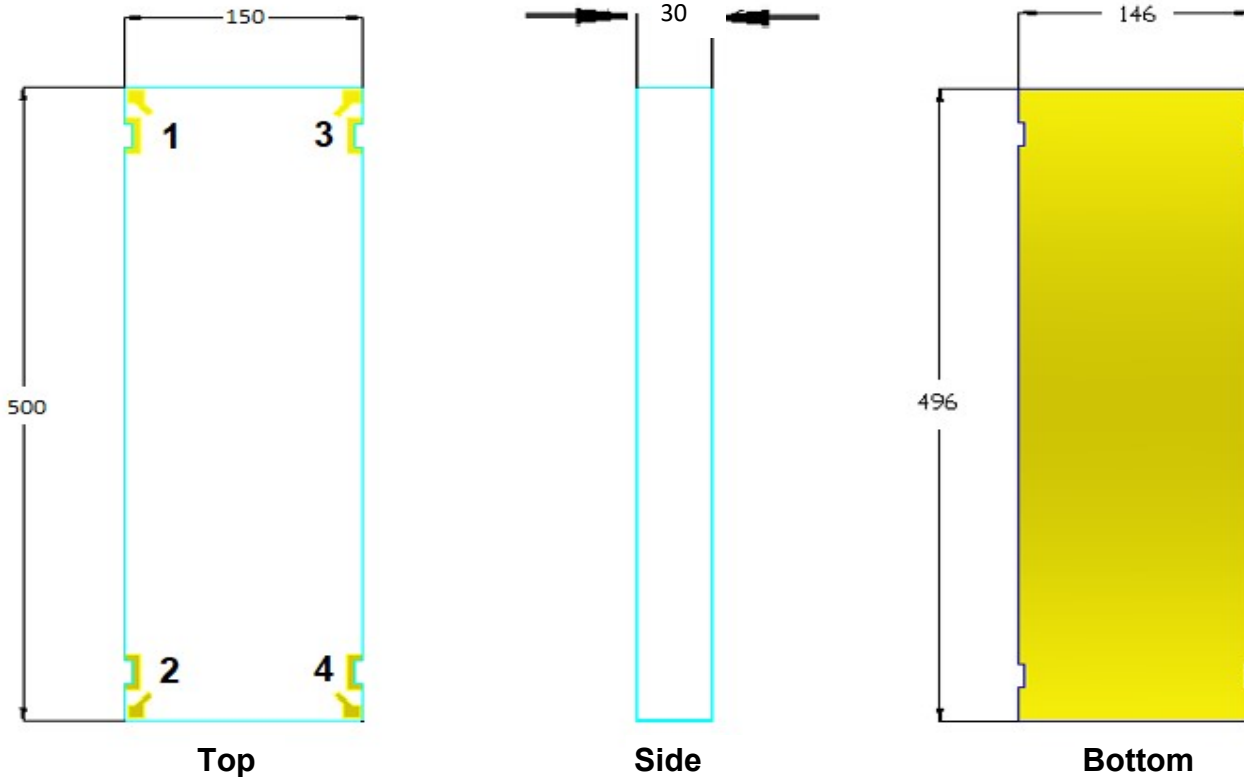
*Typical de-embedded measured performance mounted on a connectorized 10mil RO4350B PCB with 50Ω CPW ground traces going into the ports at room temperature.

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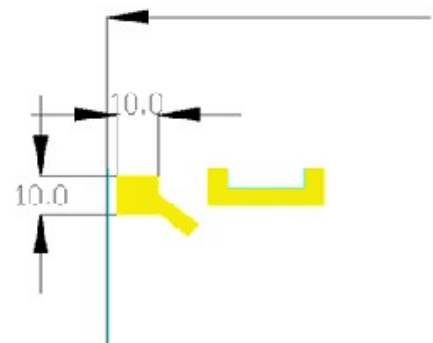
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Physical Dimensions

Units = mils (thousandths of an inch)



FPC09291 Coupler Port Configuration				
	Port 1	Port 2	Port 3	Port 4
Configuration 1	Input	Output	Coupled	Isolated
Configuration 2	Output	Input	Isolated	Coupled
Configuration 3	Coupled	Isolated	Input	Output
Configuration 4	Isolated	Coupled	Output	Input



4 X I/O's

Notes :

1. Termination Finish: Gold
2. Maximum Assembly Process Temperature: 250°C

Tolerances:

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

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