

FPC07183-Preliminary

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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.

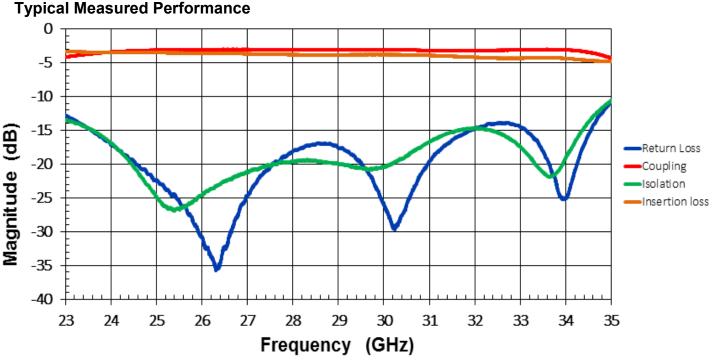
FEATURES

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

SPECIFICATIONS*

Parameter	Frequency (GHz)	Min	Max
Passband Insertion Loss* (dB)	24 - 33	0.2	1
Passband Return Loss (dB)		13	
Coupling (dB)		3	6
Directivity (dB)		10	
Input Power (W)			TBD
Size (LxWxH)	0.180 x 0.110 x 0.010 in 4.572 x 2.794 x 0.254 mm		

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



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

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24 to 33GHz 3dB Branchline Coupler



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FPC07183-Preliminary Directivity Coupling -6 -2 -8 -2.5 -10 -12 -3 -14 Magnitude (dB) Magnitude (dB) -16 -3.5 -18 -20 -4 -22 -24 -4.5 -26 -5 -28 24 25 26 27 28 29 30 31 32 33 24 25 26 27 28 29 30 31 32 33 Frequency (GHz) Frequency (GHz) **Physical Dimensions** Units = Inches 0.110 -0.010 <u>S0</u> R.017 0.180 R.010 R.005 Side Bottom Тор **Recommended PCB Layout**

.146 R.010 Ţ 0.076 0.110 \bigcirc R.017 \cap -0.180-

- 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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