

6 to 18GHz 20dB Asymmetric Coupler

FPC07337

www.knowlesc capacitors.com

DESCRIPTION

DLI's high frequency wide band wirebond directional couplers utilize DLI's high dielectric ceramic materials which provide small size and minimal performance variation over temperature.

FEATURES

- Small Size
- Wirebond
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω
- For reference, surface mount version is FPC06913

Packaging and Ordering Information:

To request Tape and Reel packaging, please order part number FPC07337-T, see additional data on page 4.



SPECIFICATIONS*

Parameter	Frequency (GHz)	Min	Typ.	Max
Passband Insertion Loss* (dB)	6-18			1
Passband Return Loss (dB)		15		
Coupling (dB)		20		21.5
Directivity (dB)			10	
CW Input Power** (W)				10
$\theta_{JC} \left(\frac{^{\circ}\text{C}}{\text{W}} \right)$	7.5			
Size (L x W x H)	0.180 x 0.110 x 0.015 in 4.57 x 2.79 x 0.38 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 via's 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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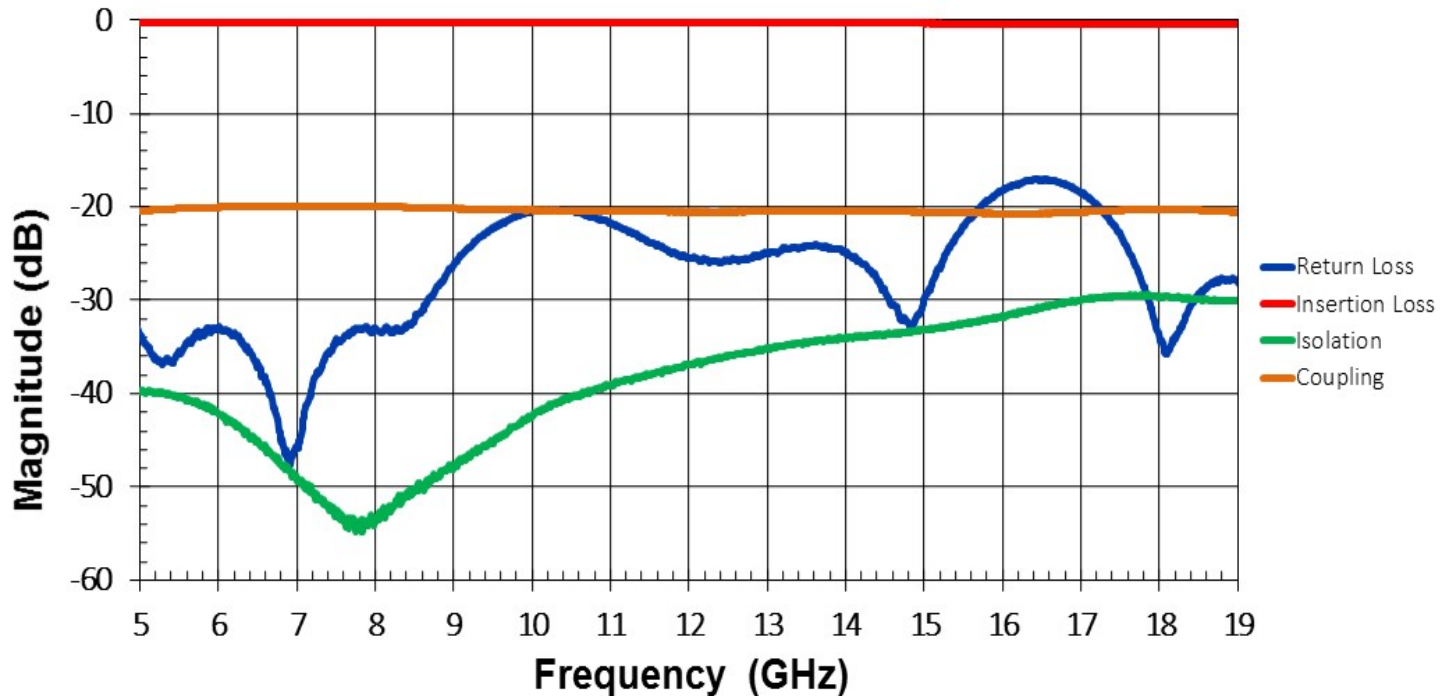
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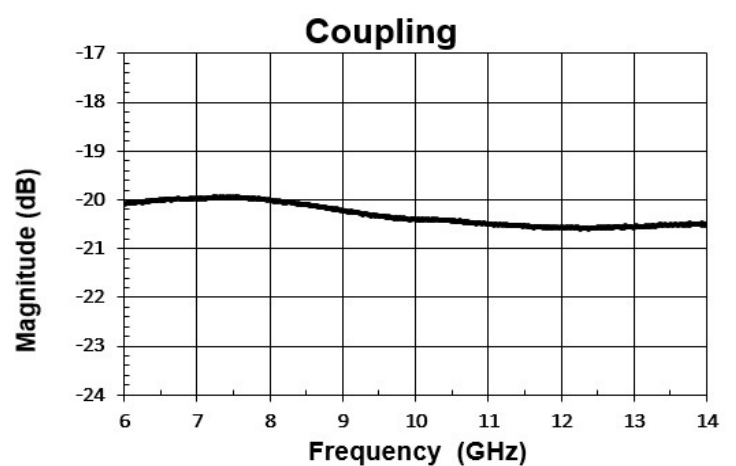
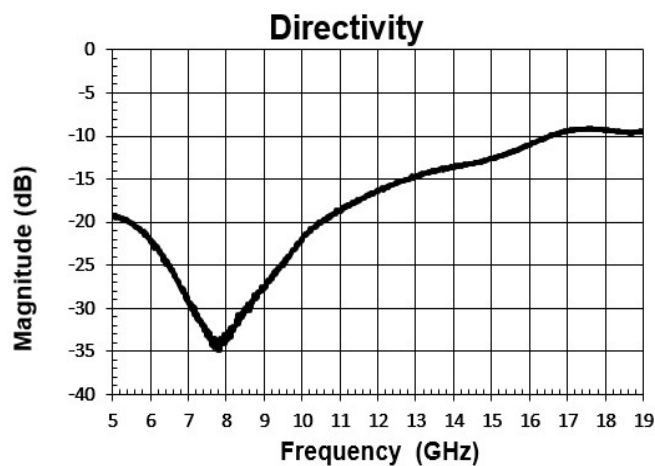
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Typical Measured Performance



*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.



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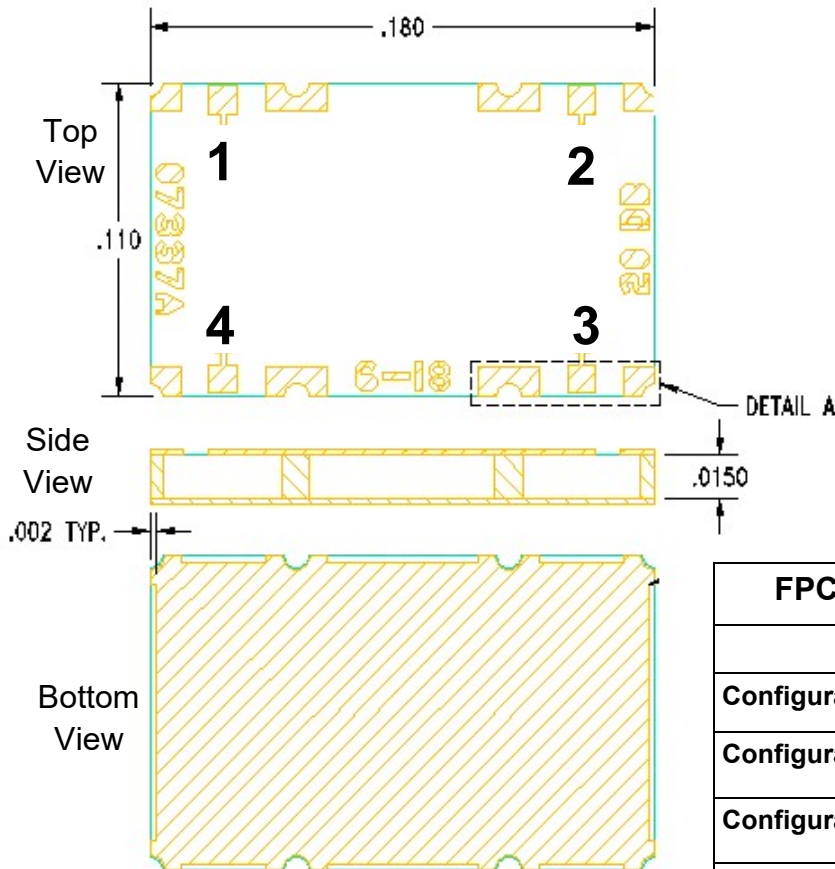
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Physical Dimensions

Units = inches



Notes :

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

Tolerances:

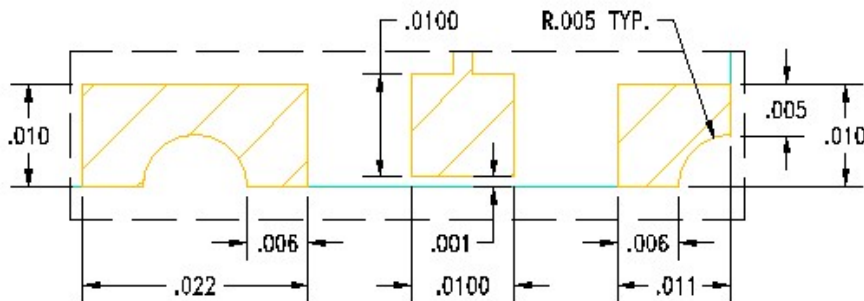
For values with 3 decimal places
±0.001

For values with 4 decimal places
±0.0005

FPC07337 Coupler Port Configurations

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

DETAIL A (4 PLACES)



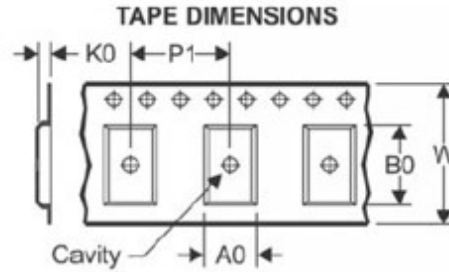
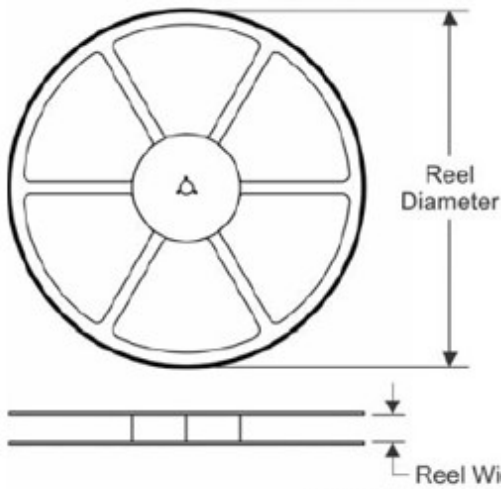
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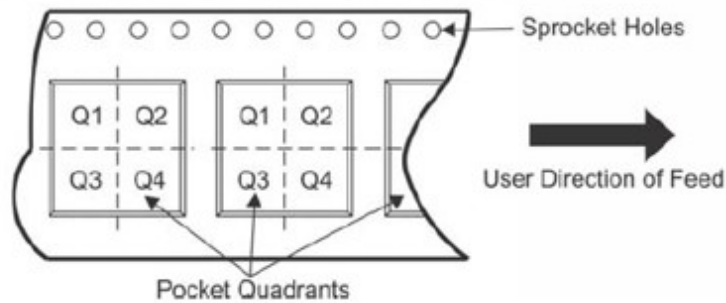
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TAPE AND REEL INFORMATION



A0	Dimension designed to accommodate the component width
B0	Dimension designed to accommodate the component length
K0	Dimension designed to accommodate the component thickness
W	Overall width of the carrier tape
P1	Pitch between successive cavity centers

QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*All dimensions are nominal

Device	Package Type	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
FPC07337-T	SMD	180	12.4	3.1	4.9	0.7	8	12	Q2

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