

20 to 40GHz 20dB Directional Coupler FPC08056

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DESCRIPTION

DLI's wide band wire bond (WB) catalog directional coupler (WB version of surface mount coupler, FPC07181) utilizes 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

Packaging and Ordering Information: To request Tape and Reel packaging, please order part number FPC08056-T, see additional data on page 4.

SPECIFICATIONS*

Parameter	Frequency (GHz)	Min	Max
Passband Excess Insertion Loss* (dB)	20 - 40		0.5
Passband Return Loss (dB)		10	15
Coupling (dB)		18	22
Directivity (dB)		7	10
CW Input Power** (W)			10
$\theta_{jc} \left(\frac{^{\circ}\text{C}}{\text{W}} \right)$			7.5
Size (L x W x H)	0.115 x 0.100 x 0.010 in 2.921 x 2.54 x 0.0254 mm		



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

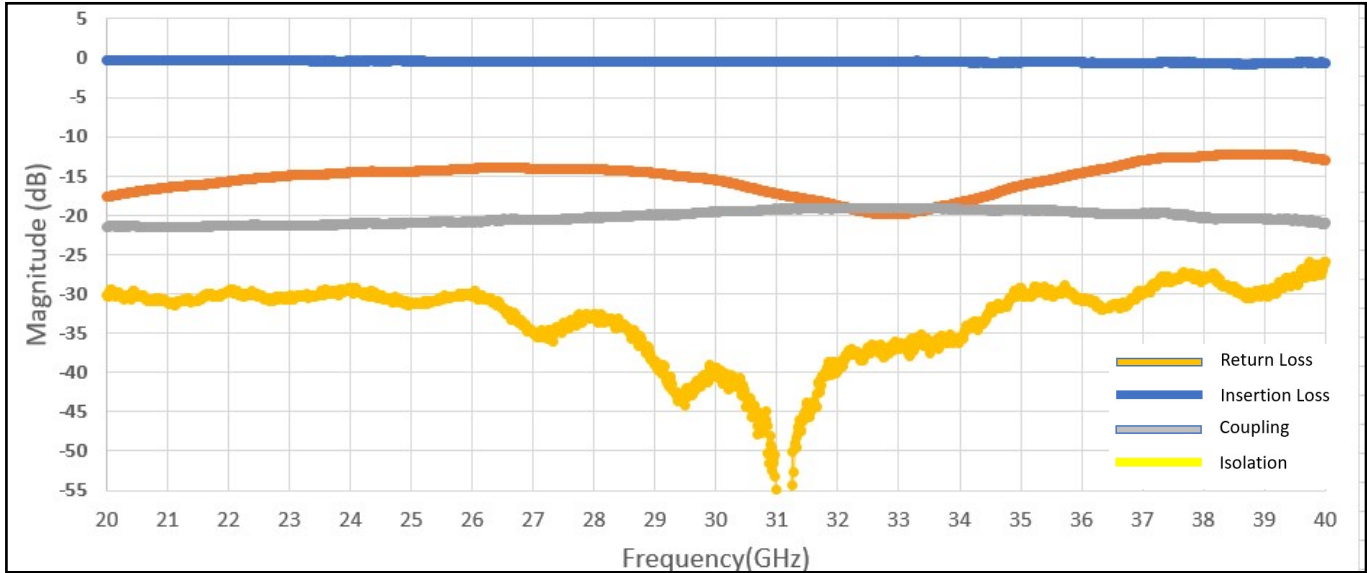
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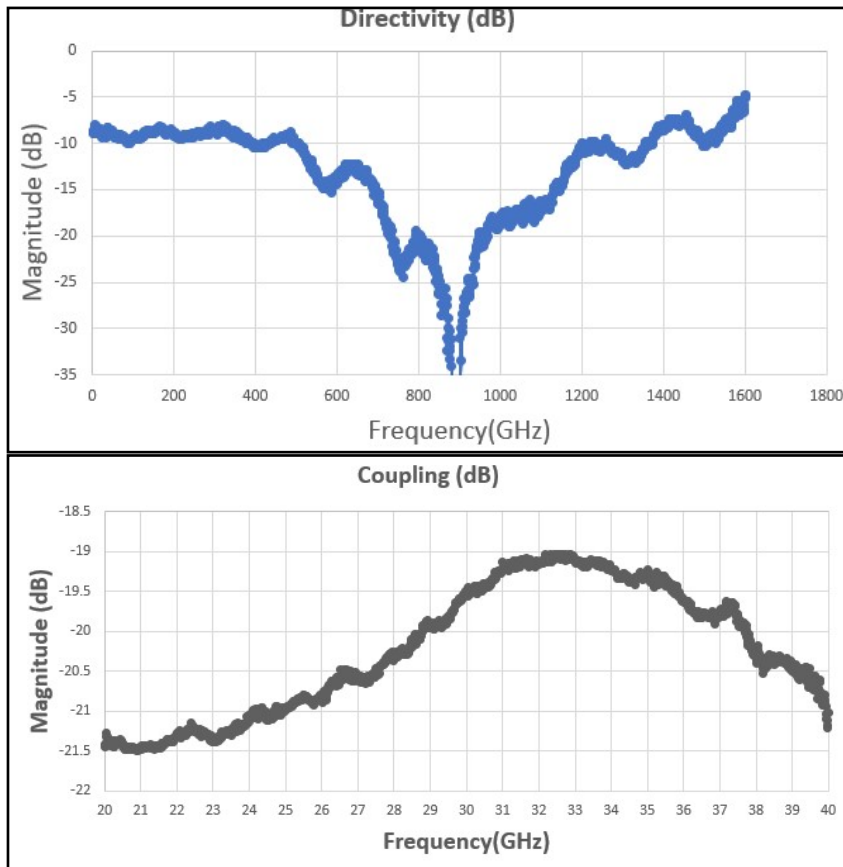
To Order Contact KCCSales@knowles.com | For Technical Inquiries Contact DLIengineering@knowles.com

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Typical Measured Performance*



*Typical RF-GSG Probed measured performance



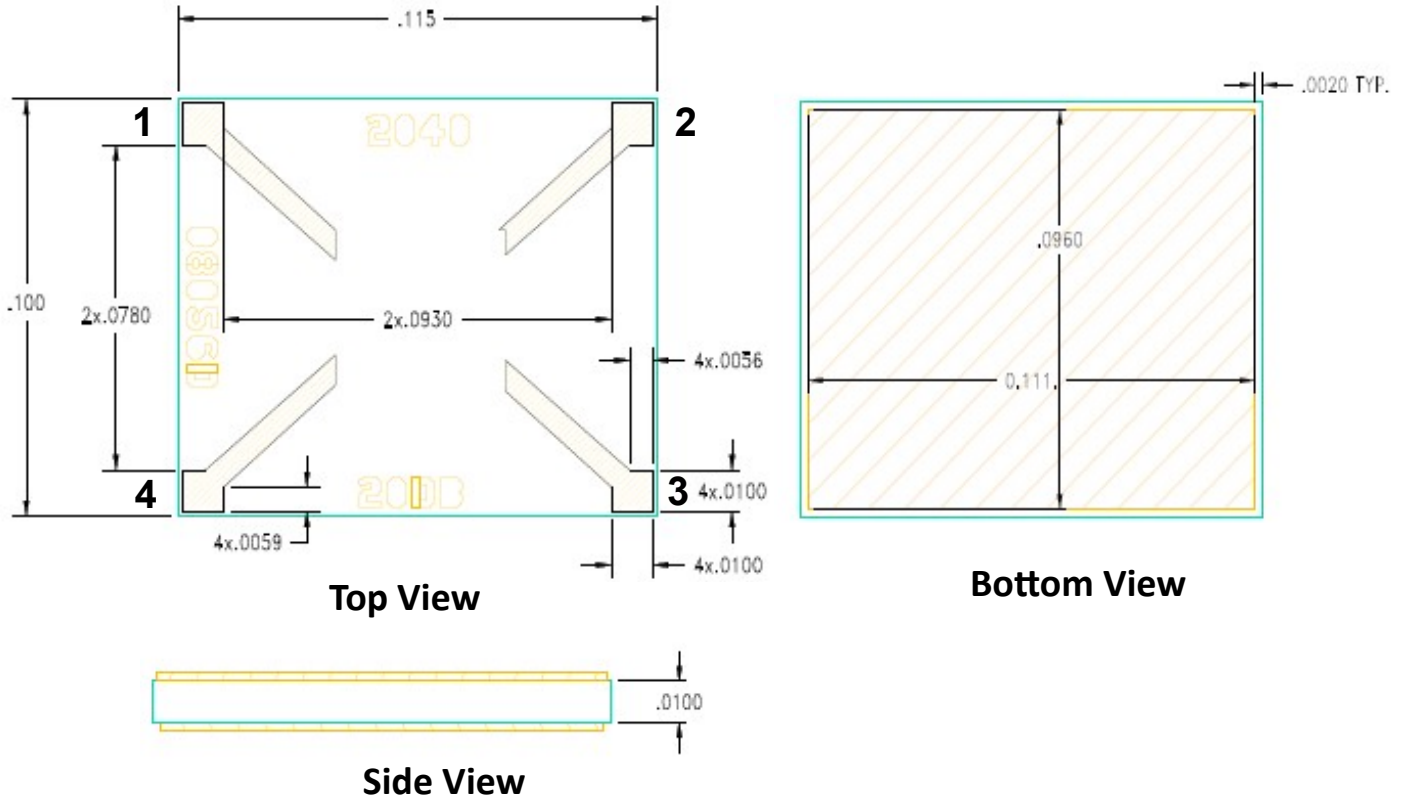
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Physical Dimensions

Units = inch



FPC08056 Coupler Port Configuration				
	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

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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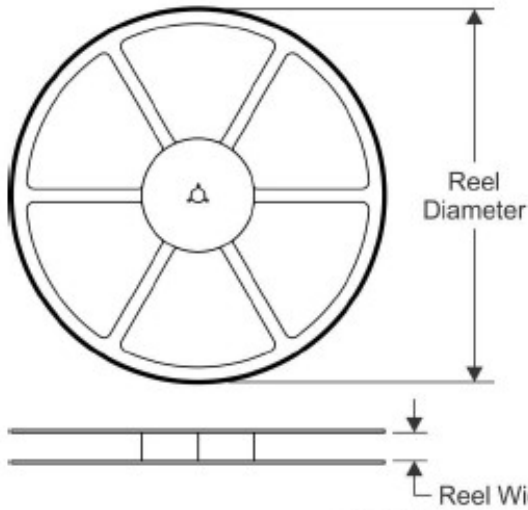
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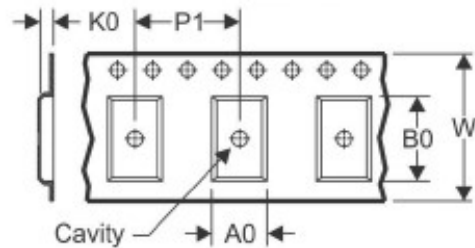
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TAPE AND REEL INFORMATION

REEL DIMENSIONS

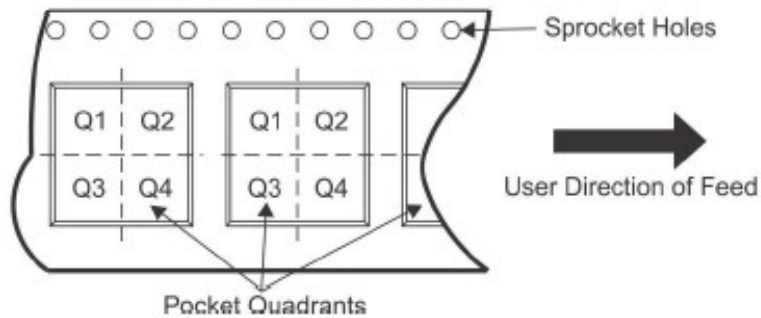


TAPE DIMENSIONS



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
FPC08056-T	SMD	180	8.4	1.3	1.76	0.5	4	8	Q1&2

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