

3.125GHz Surface Mount Bandpass Filter B031ND5S

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DESCRIPTION

DLI's surface mount catalog bandpass filters utilize DLI's low loss temperature stable materials which offer small size and minimal performance variation over temperature. The catalog BPF's are offered in a variety of frequency bands, which offers a drop in solution with highly repeatable performance.

FEATURES

- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50

Packaging and Ordering Information:

To request tape and reel packaging, please order part number B031ND5S-T

SPECIFICATIONS*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	2.9 - 3.33		3.0	3.5
Return Loss (dB)		9.5	10.0	
Low Side Rejection (dB)	DC - 2.4		40.0	
High Side Rejection (dB)	3.85 - 7.0		40.0	
CW Input Power** (W)				10
$\theta_{JC} \left(\frac{^{\circ}\text{C}}{\text{W}} \right)$	7.5			
Size (L x W x H)	0.500 x 0.250 x 0.113 in 12.70 x 6.35 x 2.87 mm			



*Electrical specifications based on typical probed 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.

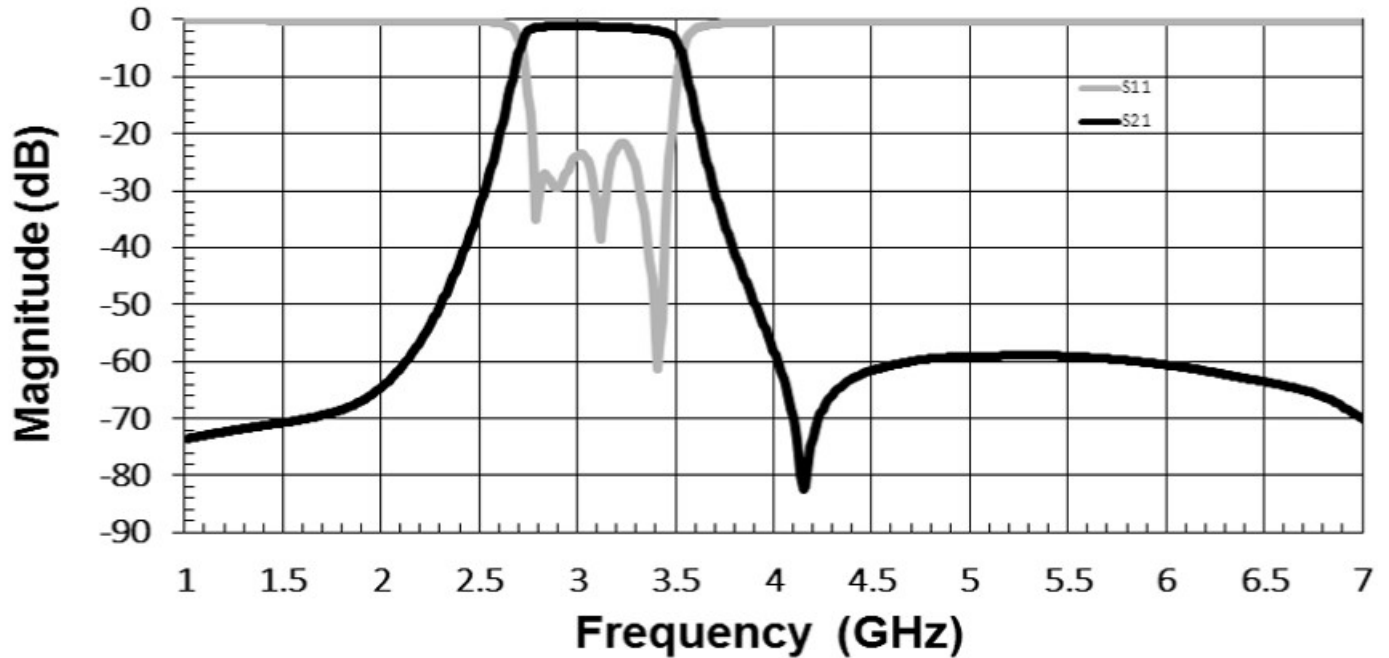
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Typical Measured Performance



*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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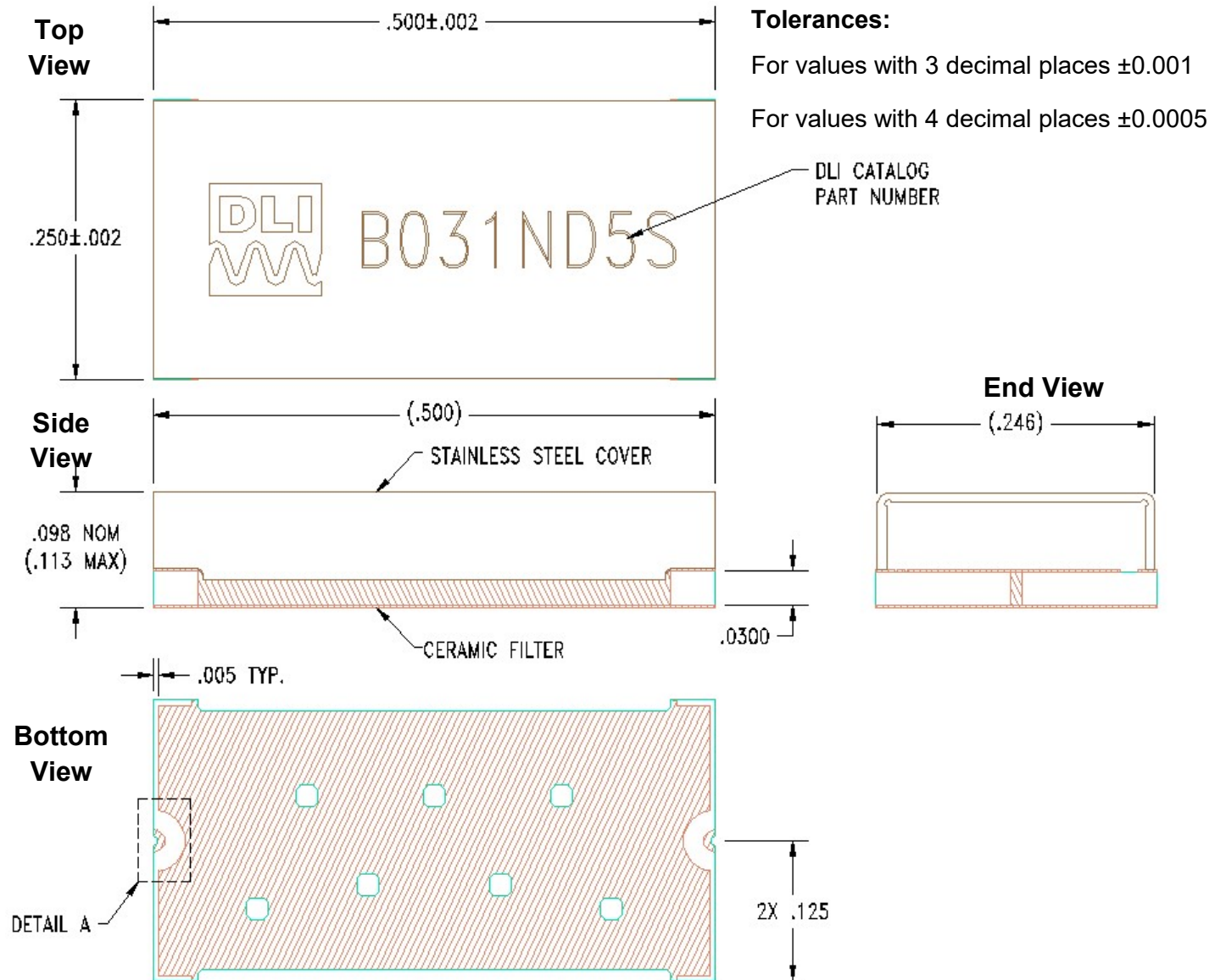
Physical Dimensions

Units = inches

Tolerances:

For values with 3 decimal places ± 0.001

For values with 4 decimal places ± 0.0005

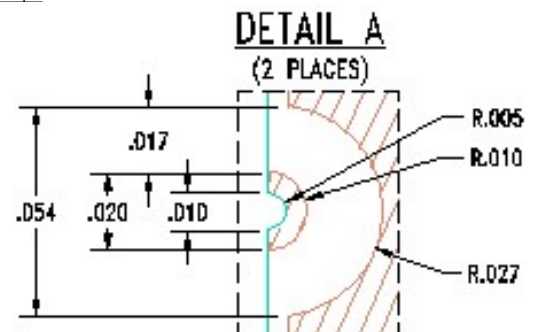


Notes :

1. Termination Finish:

ENIG: 3 - 6 μ inch Au over 50 μ inch Ni

2. Maximum Assembly Process Temperature: 250°C

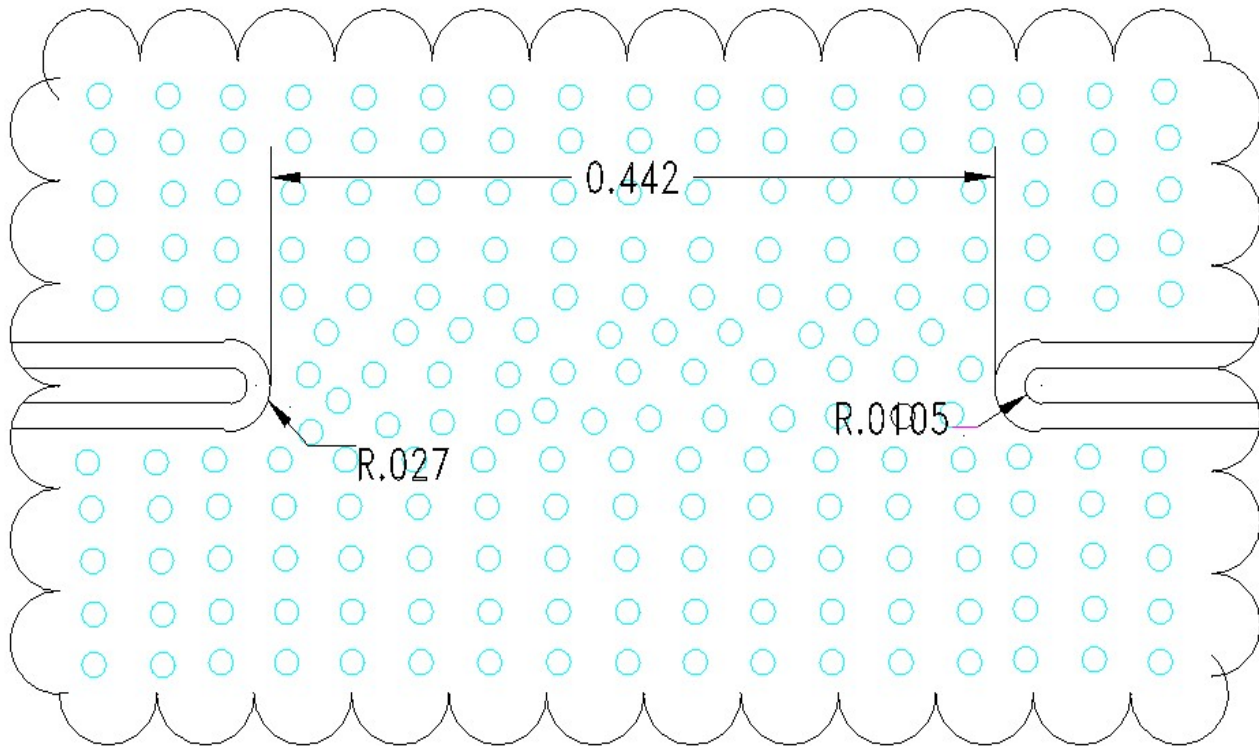


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Recommended PCB Layout



Note:

Unit = inches

- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.

For further details and best practices, reference the **Microwave Products Guide**, available at: <https://www.knowlescapacitors.com/Support/Catalogs>

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