

11.9GHz Surface Mount Bandpass Filter B119LB1S

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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: 50Ω

Packaging and Ordering Information:

To request tape and reel packaging, please order part number B119LB1S-T.



SPECIFICATIONS*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	11.7 - 12.2		2.5	3.0
Return Loss (dB)		10.0	15.0	
Low Side Rejection (dB)	DC - 10.9	40.0	45.0	
High Side Rejection (dB)	13- 18	40.0	45.0	
CW Input Power** (W)				5
$\theta_{JC} \left(\frac{^{\circ}C}{W} \right)$	15			
Size (L x W x H)	0.450 x 0.200 x 0.098 in 11.43 x 5.08 x 2.488 mm			

*Electrical specifications based on typical probed 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.

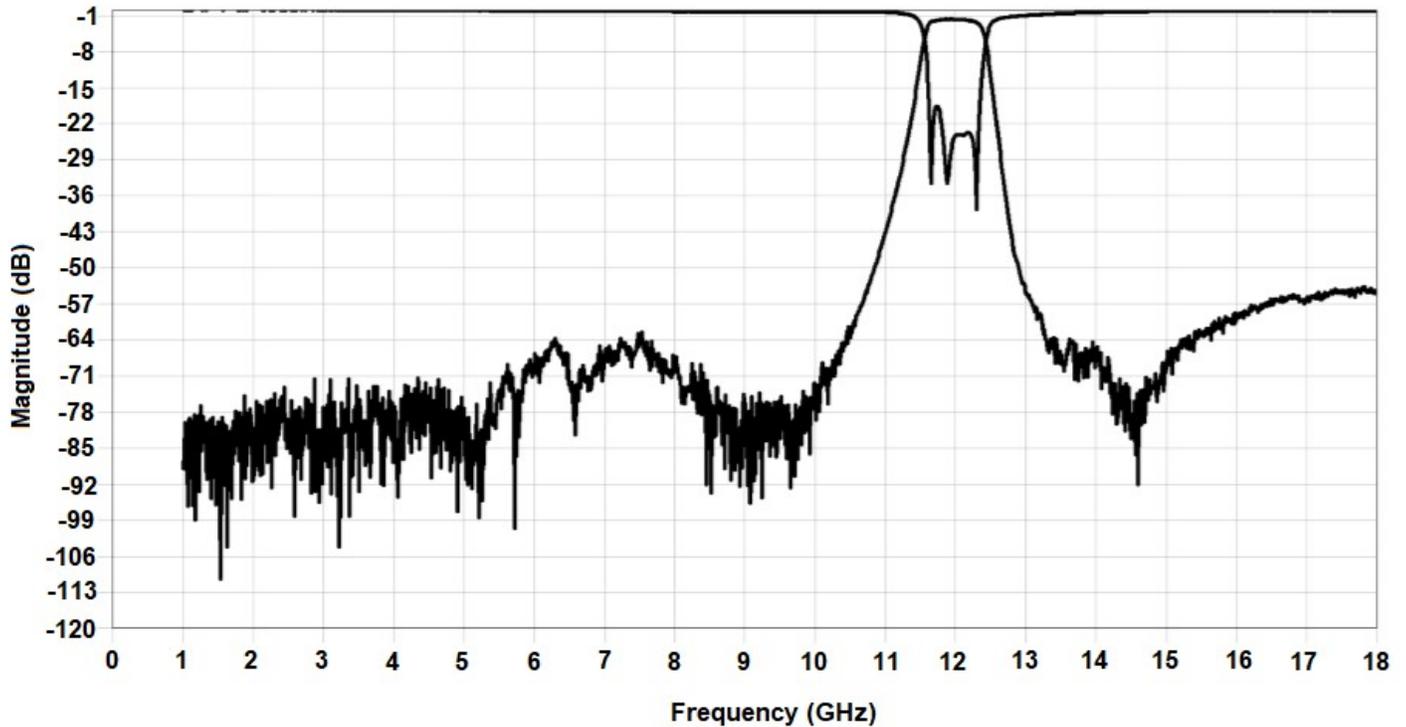
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Typical Measured Performance



*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.

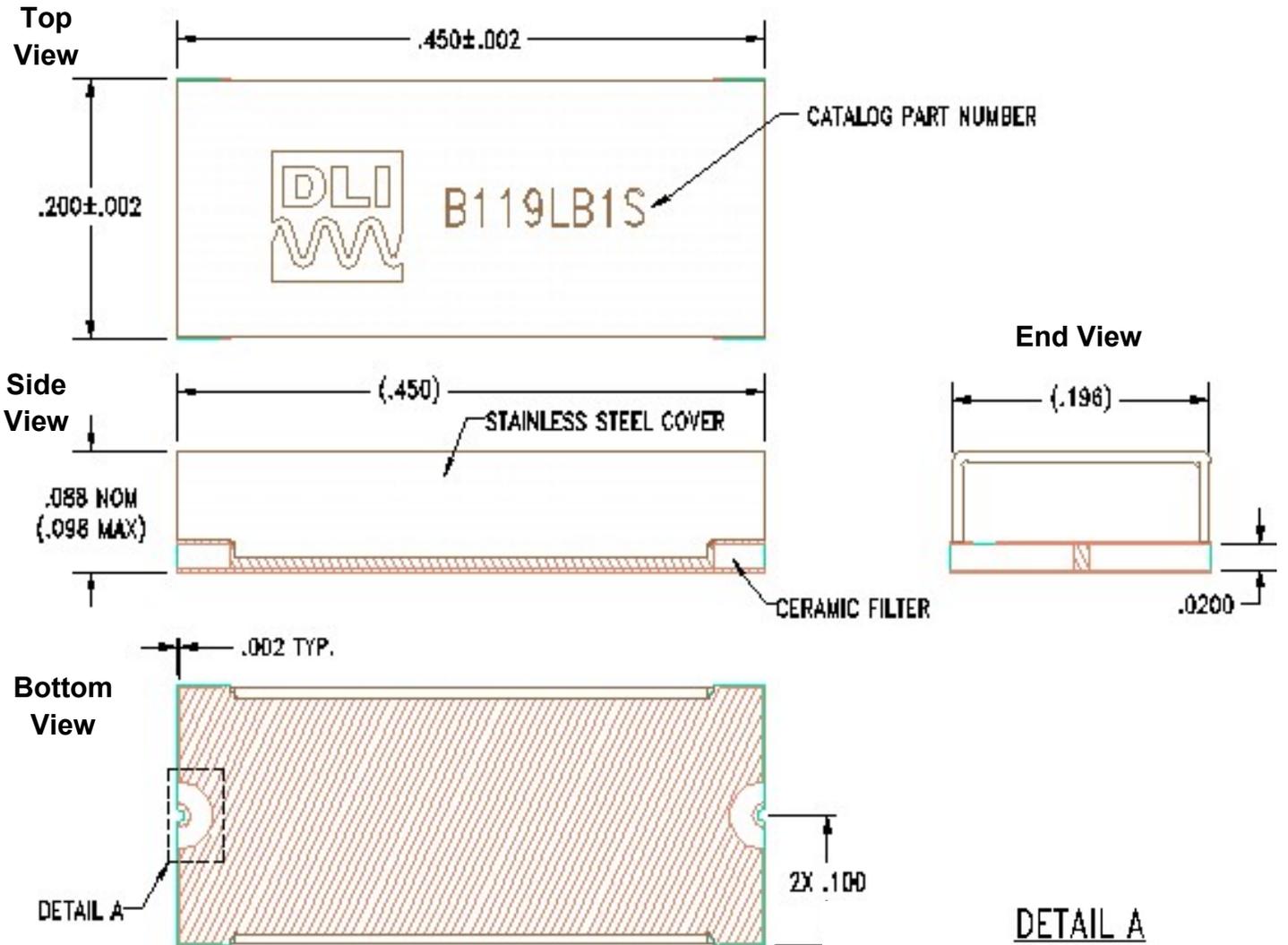
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Physical Dimensions

Units = inches

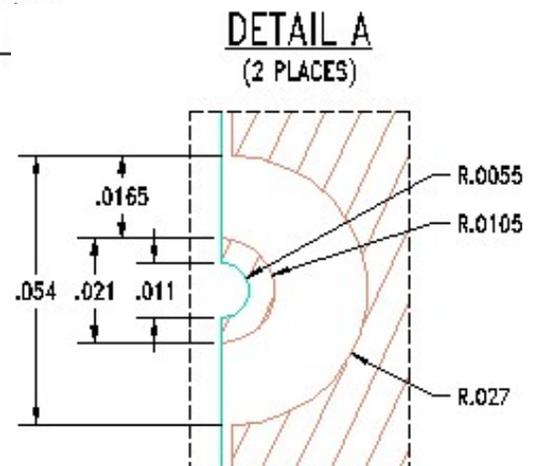


Notes :

- Termination Finish:
ENIG: 3 - 6 μinch Au over 50 μinch Ni
- Maximum Assembly Process Temperature: 250°C

Tolerances:

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

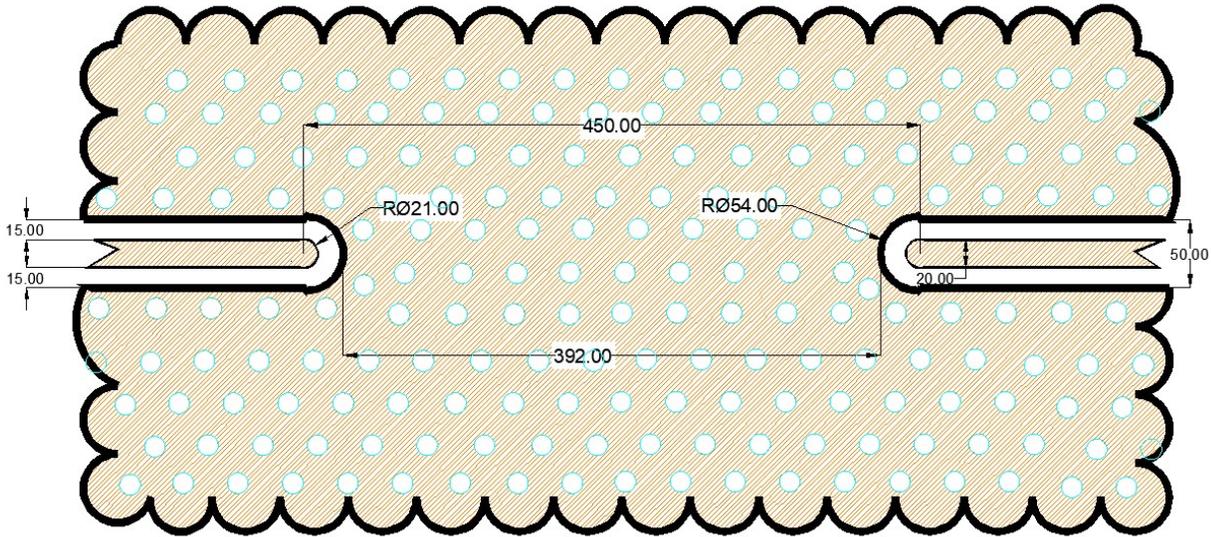


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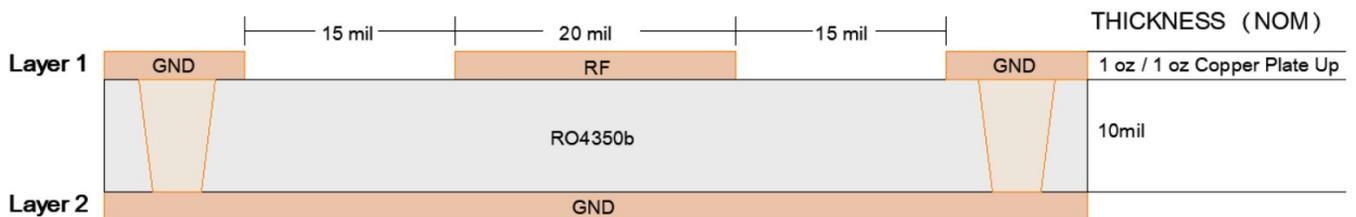
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Recommended PCB Layout (Unit : mil)



PCB RECOMMENDED STACKUP

Filter is matched to RF layer stackup seen below
 Dimensions are specified below in inches (not to scale)
 Board material : RO4350b
 Board material design dk : 3.66
 CPWG : 20mil trace width, 15mil gaps



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

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