

2-18GHz Surface Mount Bandpass Filter B100RH4S

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DESCRIPTION

DLI's wideband, surface mount filter utilizes Knowles' unique multilayer filter technology to create a compact, wideband performance filter.

FEATURES

- Small Size
- 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 B100RH4S-T

SPECIFICATIONS*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	2.0 - 18.0		2.0	3.0
Return Loss (dB)		10.0	15.0	
Low Side Rejection (dB)	DC - 1.0	25	35	
High Side Rejection (dB)	21.5 - 35.0	20	30	
CW Input Power** (W)	5			
Size (L x W x H)	0.340 x 0.170 x 0.085 in 8.64 x 4.32 x 2.16 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.

Information in this document is for informational and guideline purposes only. All information regarding the Product described in this datasheet is subject to change from time to time at Knowles Precision Devices' sole discretion. It is the customer's sole responsibility to evaluate the suitability of the Product in the customer's particular application. Knowles Precision Devices assumes no responsibility or liability for the use of the information contained within.

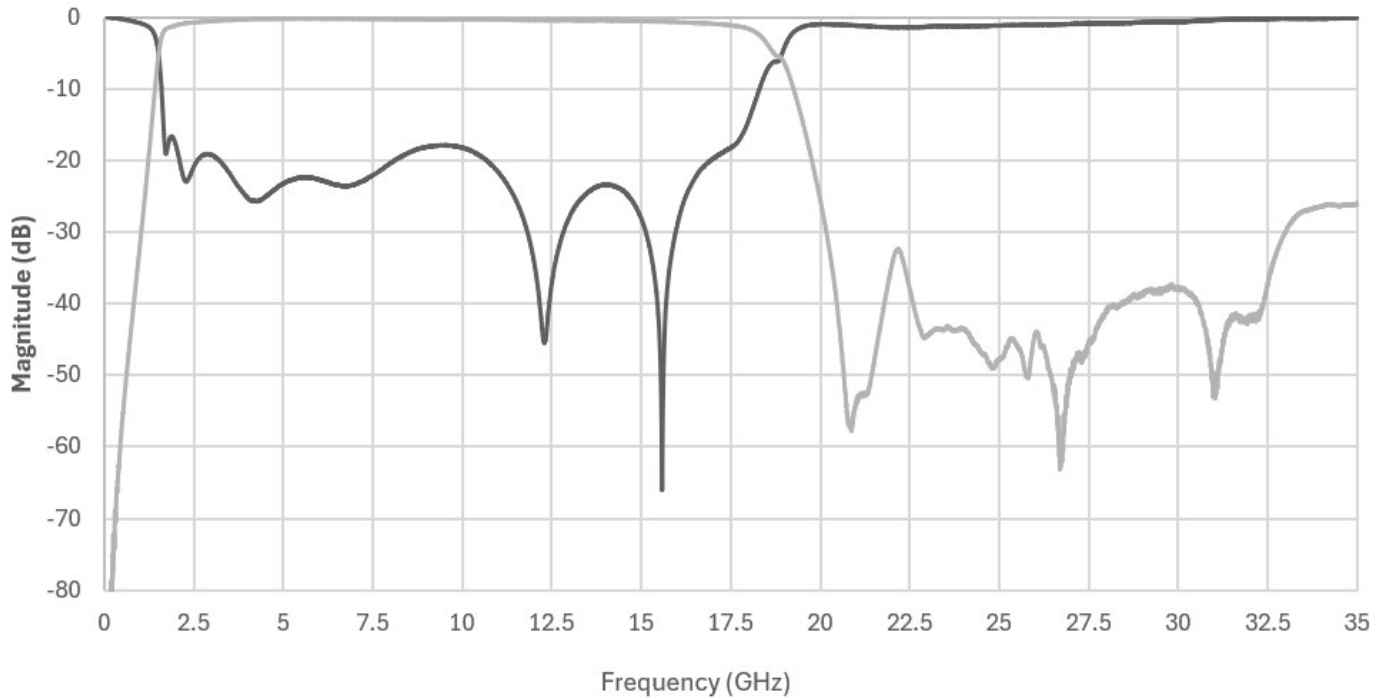
2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

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

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Typical Measured Performance



*Actual performance may vary. This measured data was acquired using the RF GSG probe test method, directly probing the backside of the filter.

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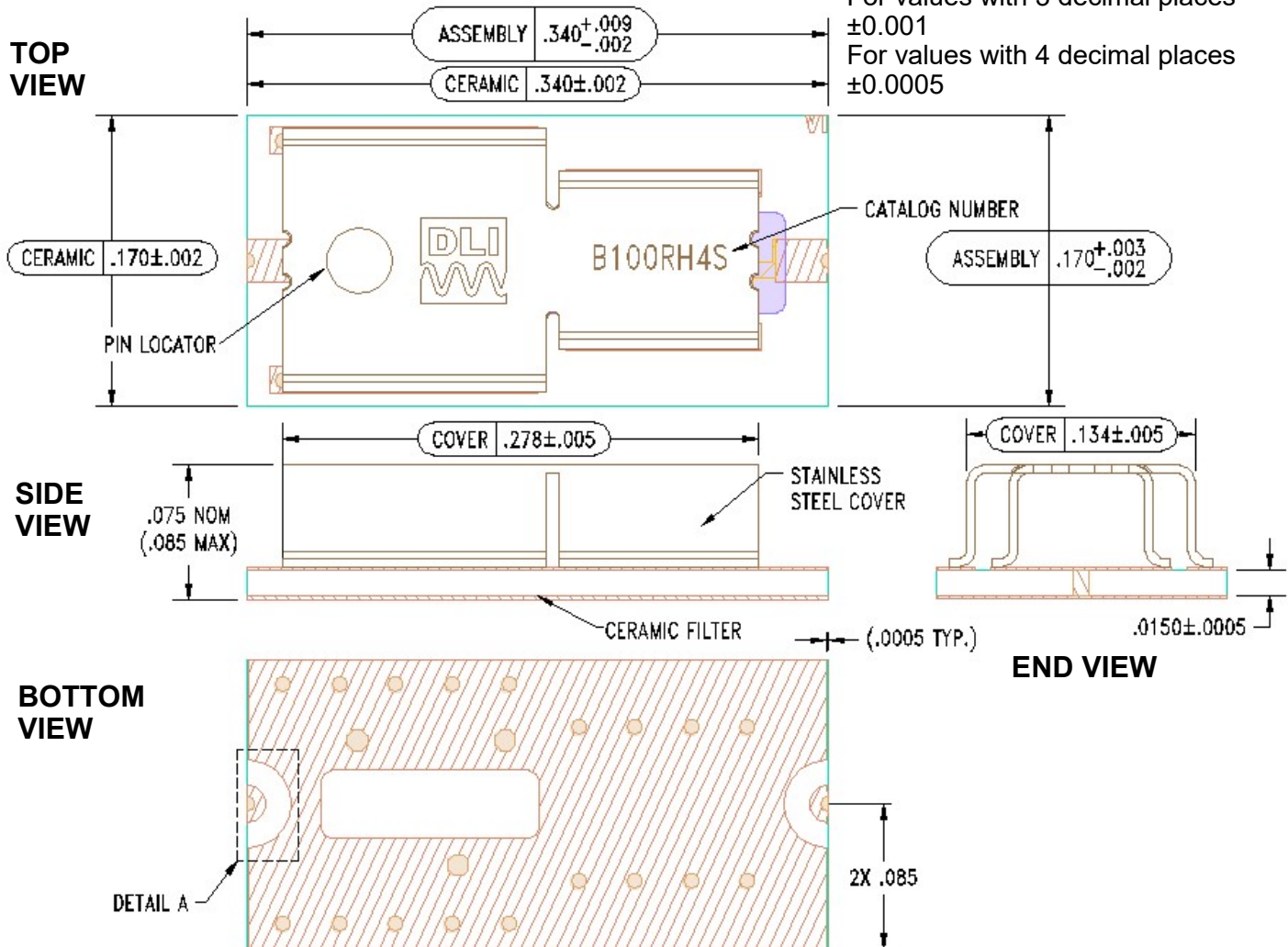
Physical Dimensions

Units = inches

Tolerances:

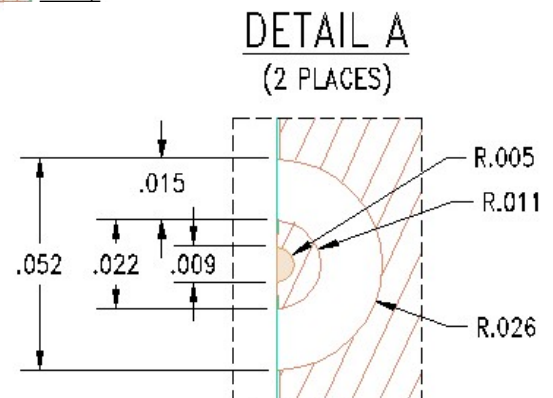
For values with 3 decimal places
 ± 0.001

For values with 4 decimal places
 ± 0.0005



Notes :

1. Termination Finish: ENIG : 3 - 6uinch Au over 50uinch Ni
2. Maximum Assembly Process Temperature: 250°C



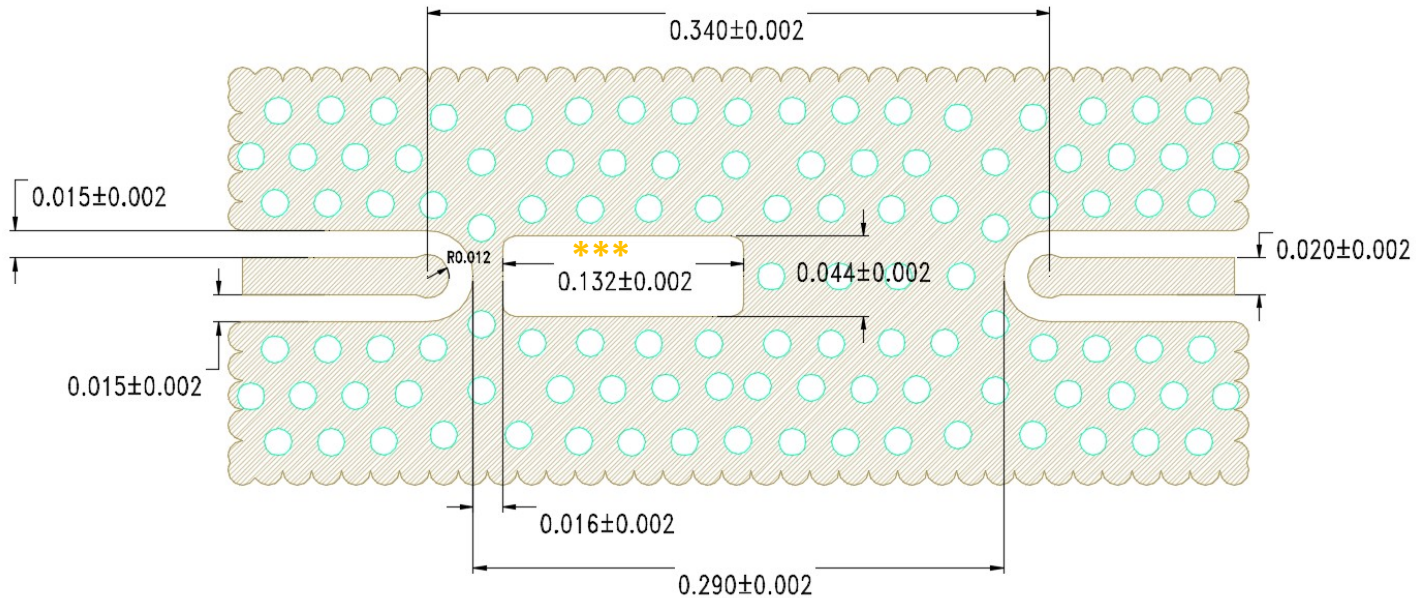
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Recommended PCB Layout Unit = inch

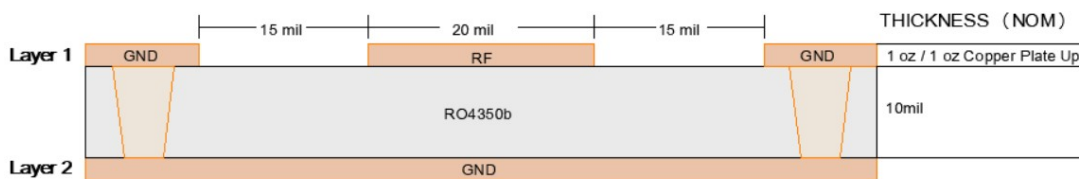


PCB RECOMMENDED STACKUP

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



Note:

- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.
- *** Note avoid copper within the voided area in the center under 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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