

42.4GHz Surface Mount Bandpass Filter

B424MB1S

www.knowlesc capacitors.com

DESCRIPTION

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

FEATURES

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

Packaging and Ordering Information:

To request Tape and Reel packaging, please order part number **B424MB1S-T**

SPECIFICATIONS*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	40.5 - 43.5	—	3	3.25
Return Loss (dB)		10	12	
Low Side Rejection (dB)	DC - 37	30	35	
High Side	49.0 - 64.0	30	35	
Size (L x W x H)	0.275 x 0.080 x 0.070 in 6.52 x 2.032 x 1.778 mm			

*Electrical specifications at room temperature. Insertion loss shall vary up to ±0.5 dB over 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.

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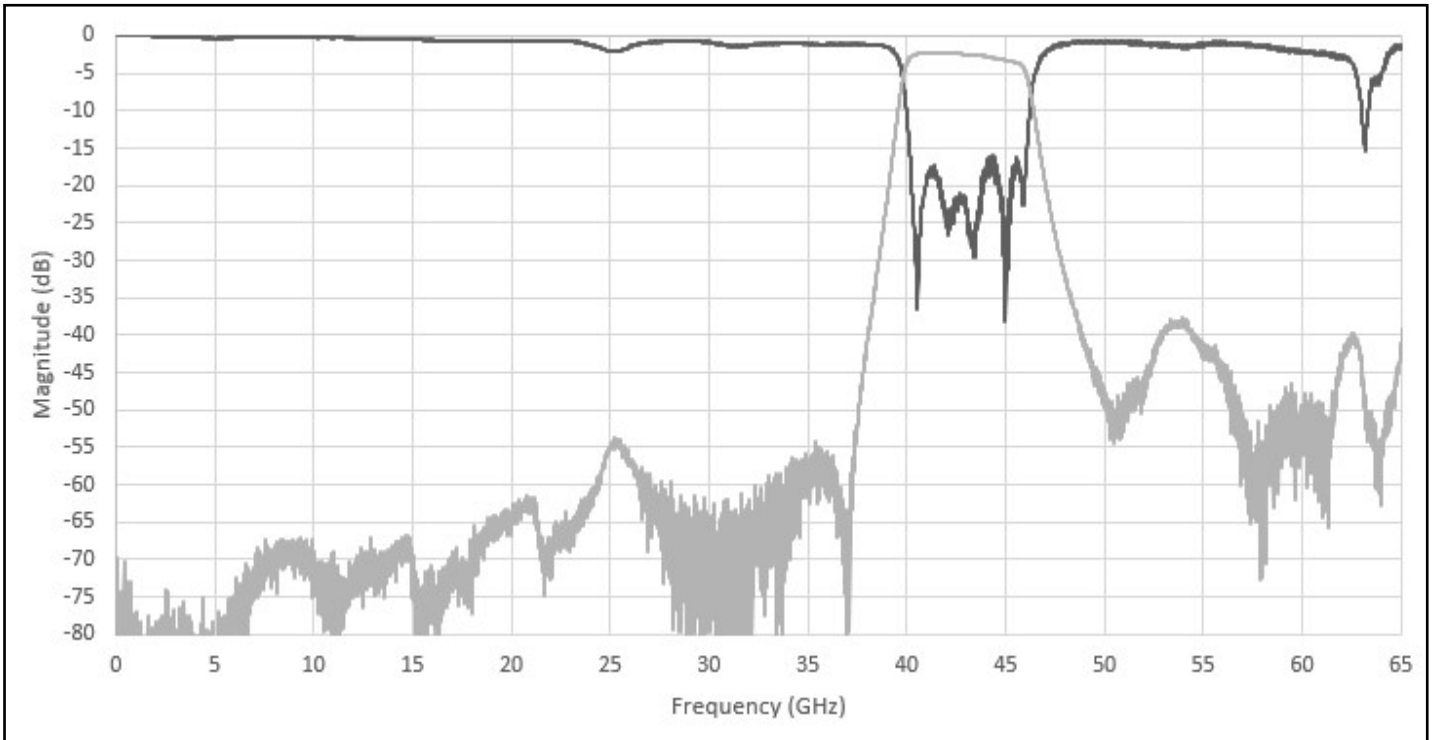
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Typical Measured Performance*



*Typical de-embedded measured performance mounted on a connectorized test DEB (0.010in RO4350B with 50Ω CPW ground traces), tested at room temperature

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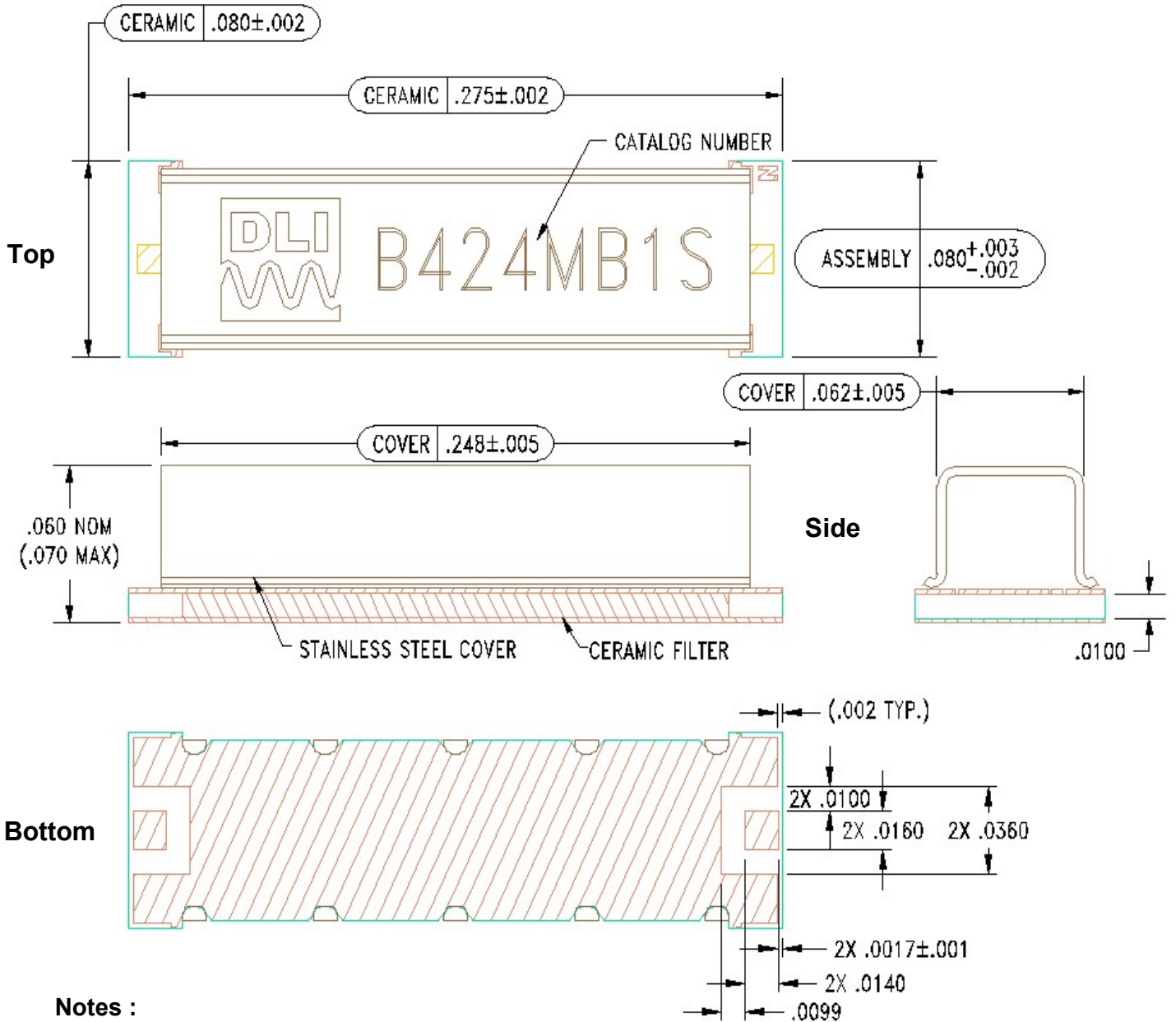
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Physical Dimensions

Units = inches (in)



Notes :

1. Mounting Surface Metallization:
ENIG: 3 - 6 μinch Au over 50 μinch Ni
2. Maximum Assembly Process Temperature: 250°C

Tolerances:

For values with 3 decimal places
±0.001

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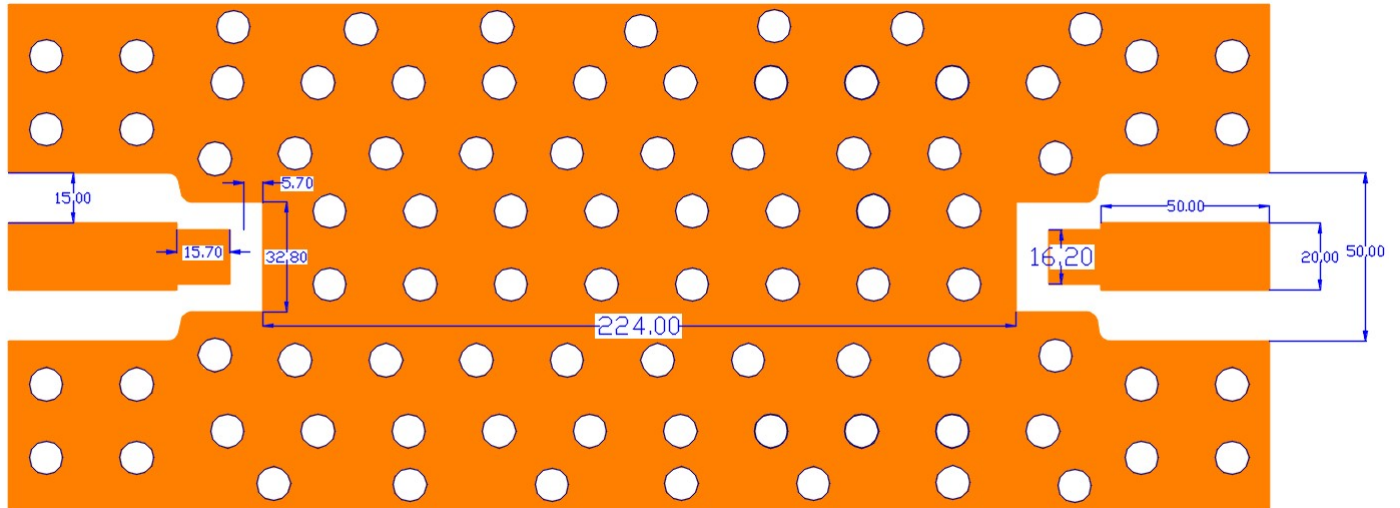
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Recommended PCB Layout

Unit : mil



○ PWB Ground Via

■ PWB Top Metallization

Note:

- 50Ω trace dimensions are application specific.
- 50Ω trace dimensions are designed for 10mil thick R04350B Rogers Board .
 - 15 mils (0.38mm) trace width
 - 5 mils (0.127mm) spacing between the trace and ground
- 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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