

11.75GHz Surface Mount Bandpass Filter

B117NB5S

DESCRIPTION

This DLI brand surface mount catalog band pass filter is designed to cover Satcom band centered at 11.725GHz. This BPF utilizes DLI's low loss temperature stable materials which offer small size and minimal performance variation over temperature while leveraging thin film technology to offer a drop in solution with highly repeatable performance.

FEATURES

- Small Size
- Fully Shielded Component
- Solder Surface Mount
- 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 B117NBB5S-T



SPECIFICATIONS*

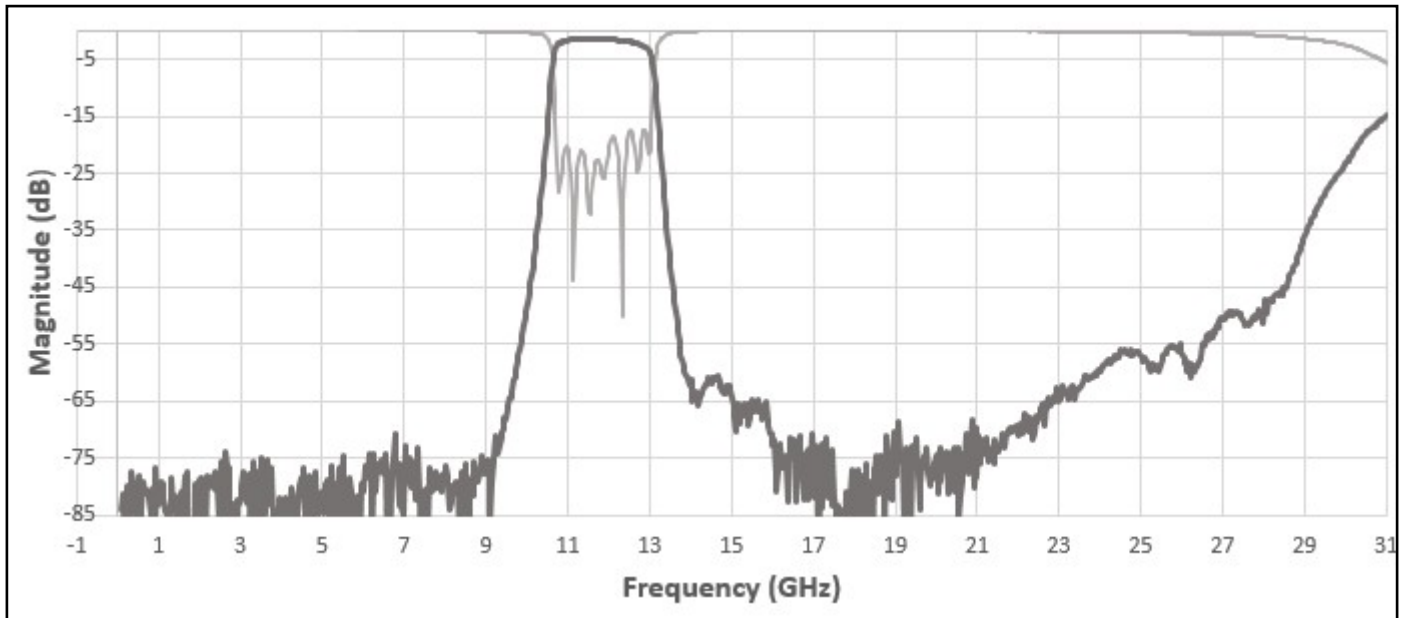
Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	10.7 - 12.75		1.8	3.0
Return Loss (dB)		10.0	20.0	
Low Side Rejection (dB)	DC - 9.5	60.0	65.0	
High Side Rejection (dB)	13.75 –14.5	50.0	60.0	
	14.0—14.5	55.0	62.0	
	14.5– 22.0	55.0	70.0	
	22.0 –28.5	40.0	60.0	
CW Input Power** (W)				15
$\theta_{JC} \left(\frac{^{\circ}C}{W} \right)$	5			
Size (L x W x H)	0.450 x 0.175 x 0.098 in 11.43 x 4.45 x 2.49 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

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Typical Measured Performance



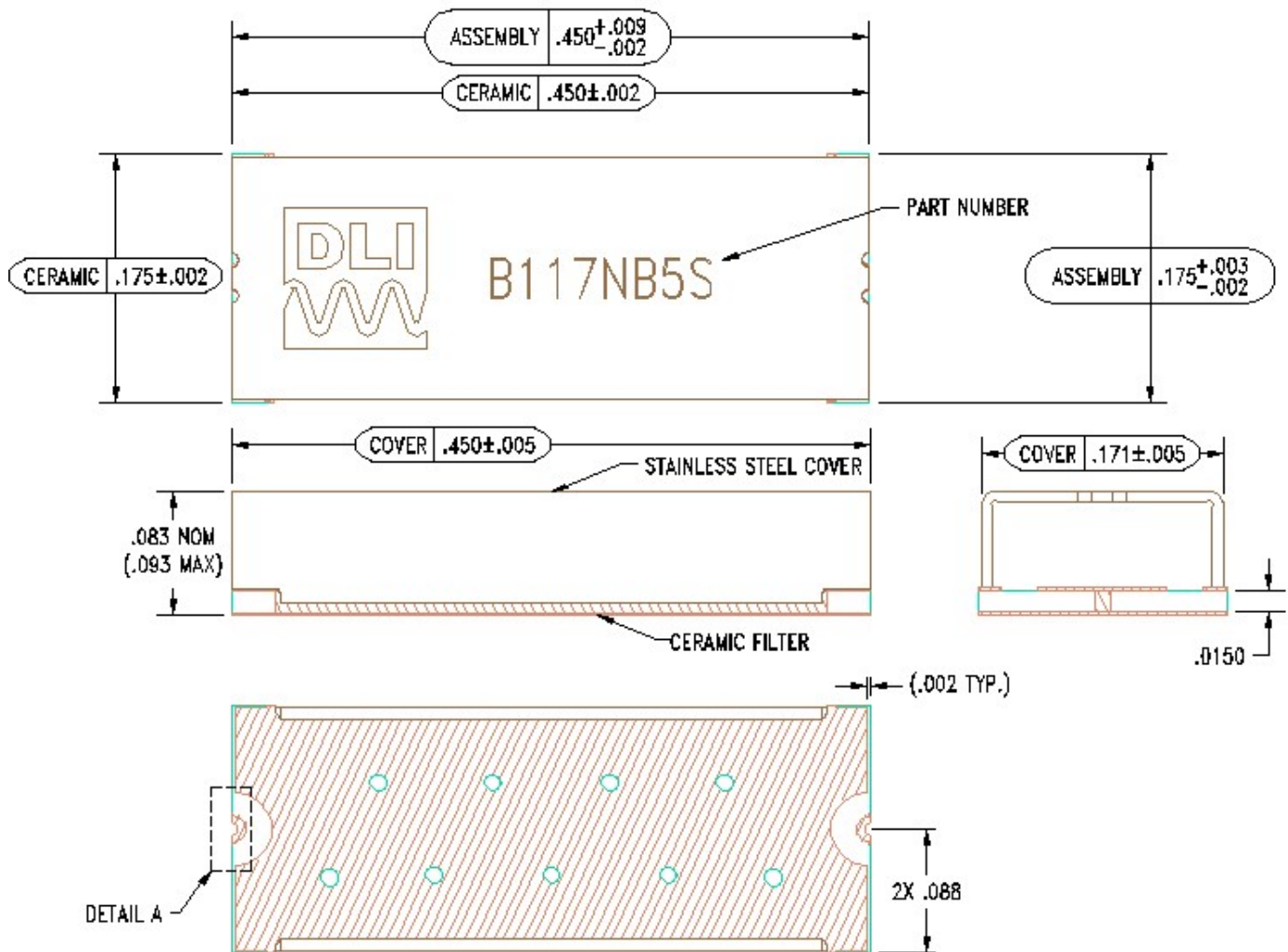
*Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.010in RO4350B with 50.0Ohm CPW ground traces going into the ports at room temperature.



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Physical Dimensions

Units = inches



Notes :

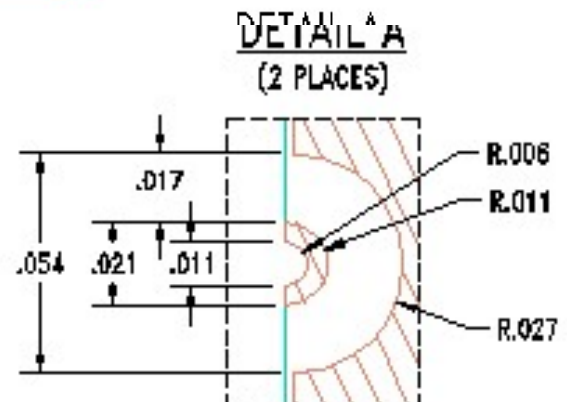
1. Termination Finish:

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

Tolerances:

For values with 3 decimal places ± 0.001

For values with 4 decimal places ± 0.0005

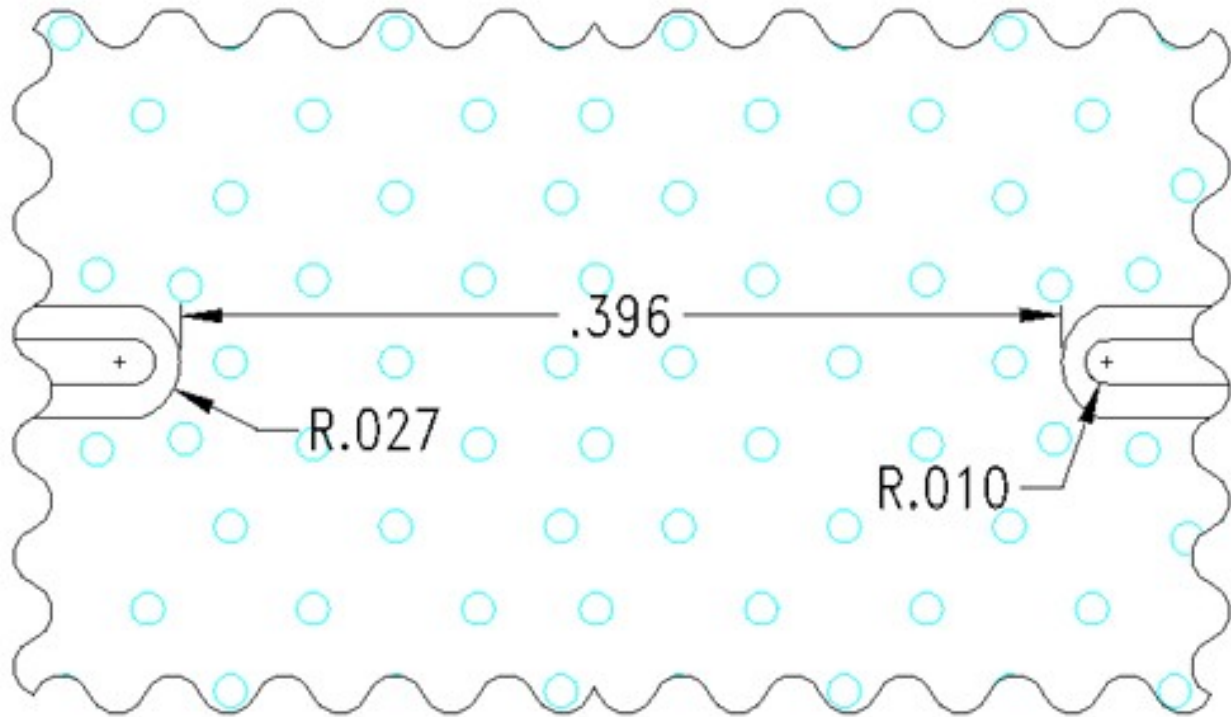


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www.knowlescapacitors.com

Recommended PCB Layout

Unit = inches



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

