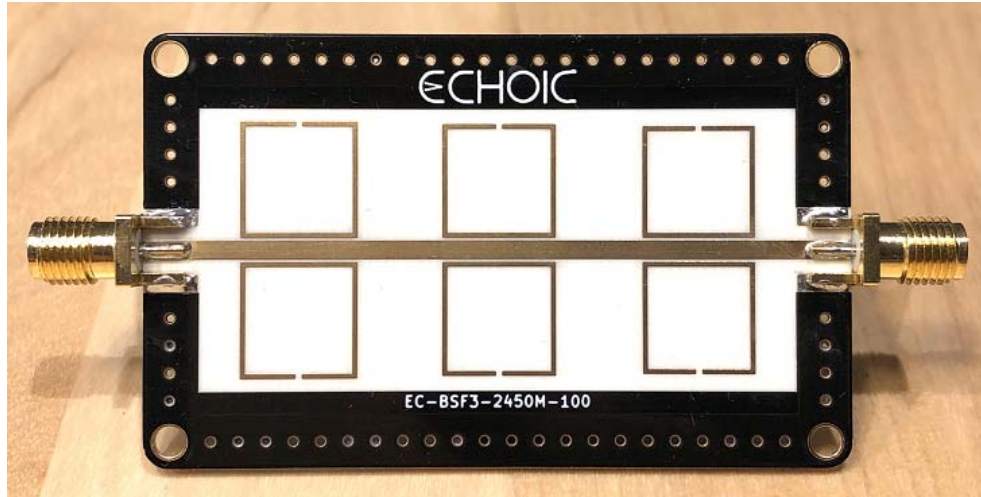


## Data Sheet

### EC-BSF3-2450M-100 Bandstop Filter for 2.45GHz Band



## Applications

- General-purpose RF, microwave, education
- Blocking Wi-Fi 802.11 2.4 GHz
- Blocking 2.4GHz: ISM, Bluetooth, Zigbee

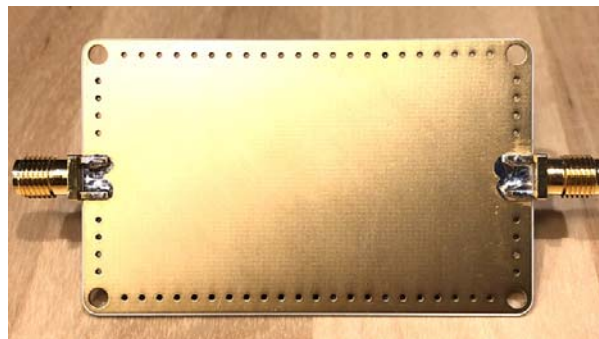
## Features

- Center freq 2.45GHz with 100 MHz stopband
- Three-section coupled line bandstop filter
- SMA (F) to SMA (F) connectors

## Description

The EC-BSF3-2450M-100 is a high-performance **bandstop** filter realized using microstrip transmission-lines on a low-loss microwave laminate. This filter can be used for test and measurement and for educational demonstration. The filter **attenuates** the widely-used 2.45 GHz WiFi/ISM/Bluetooth/Zigbee band with a bandwidth of 100 MHz and an in-band rejection of > 18dB. It is very low-loss outside of the stop-band. The filter is realized using resonators coupled to a microstrip transmission line for low-loss and high-power handling and also passes DC. As a transmission line network, the filter will exhibit a periodic response at 4.9 GHz. The filter is equipped with female SMA connectors on both ports. There is no backside solder mask, enabling it to be surface mounted if the connectors are removed.

Backside of EC-BSF3-2450M-100



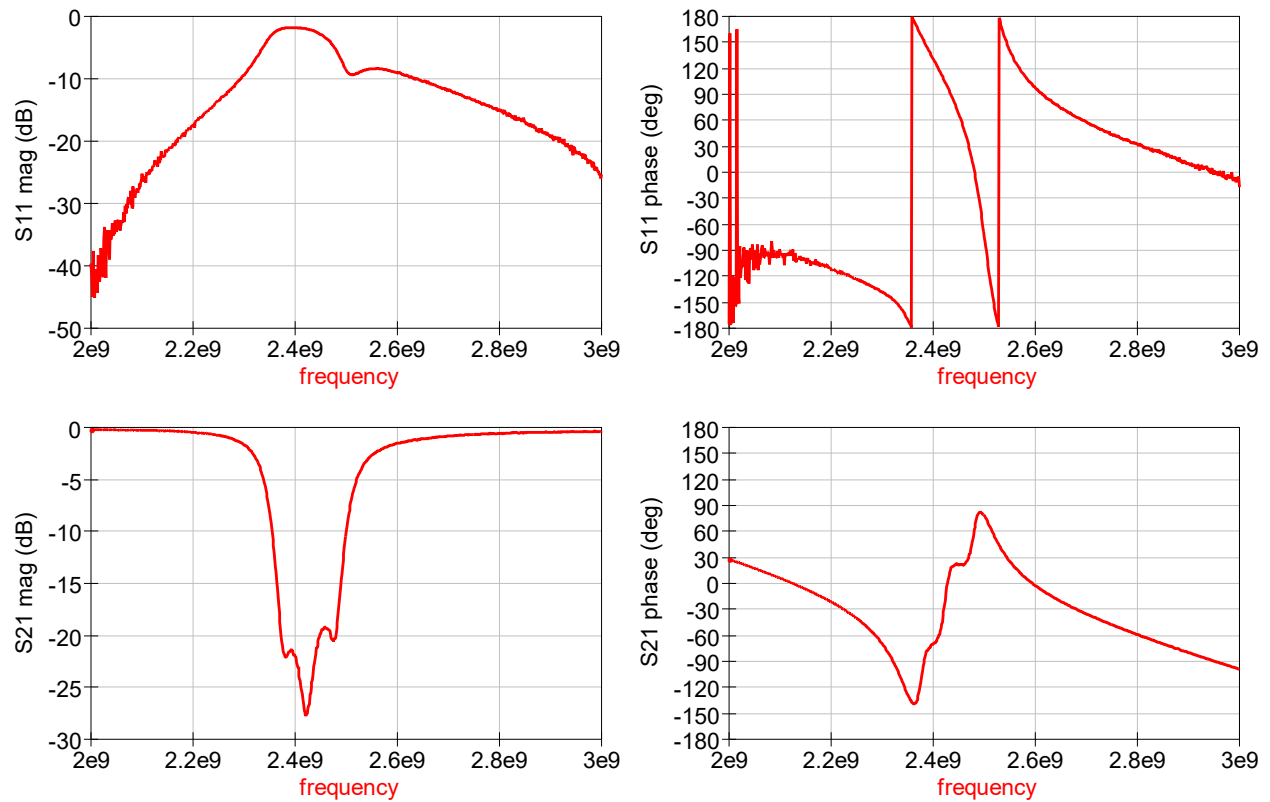
## Specifications

Parameter	Test Cond.	Min.	Typ.	Max.	Units
Impedance			50		Ohm
Center Frequency			2.425		GHz
Bandwidth			100		MHz
Stop-band rejection	2.370 to 2.484 GHz	18			dB
Insertion loss	0.000 to 2.324 GHz 2.542 to 4.480 GHz			3	dB
Input power	CW			10*	Watts

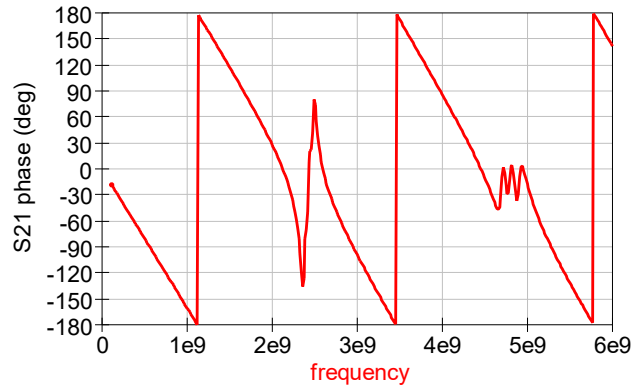
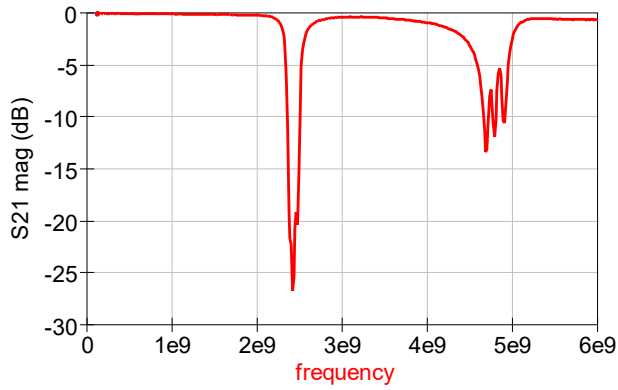
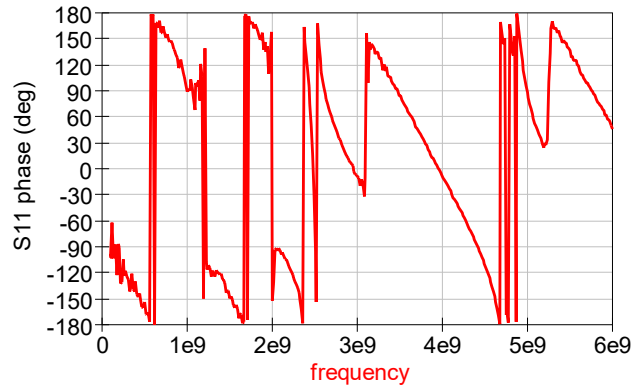
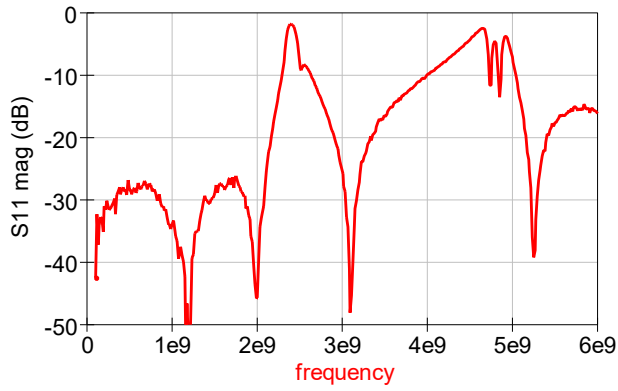
\*estimated

## Performance

Typical performance shown from 2 to 3 GHz



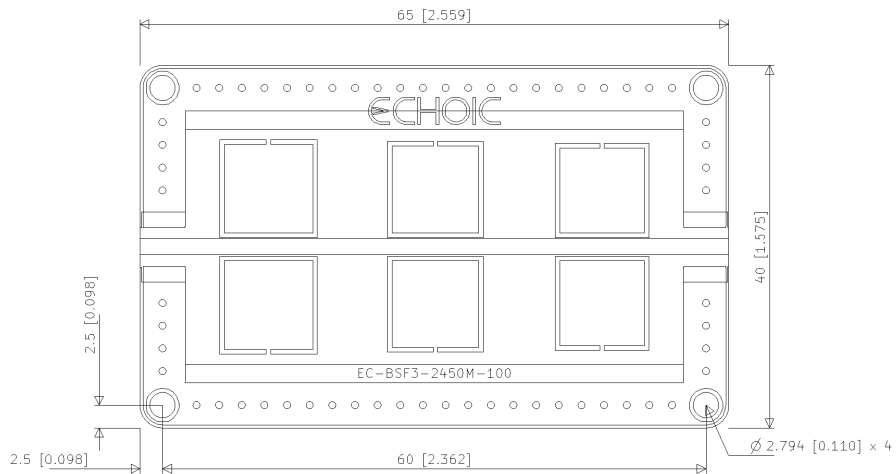
Typical performance shown from 0.1 to 6 GHz



## Mechanical

<i>Configuration</i>	<i>Parameter</i>	<i>Typical</i>	<i>Units</i>
PCB only (without case and without connectors)	Width	40	mm
	Length	65	mm
	Height	0.95	mm
PCB and case (without connector)	Width	40	mm
	Length	65	mm
	Height	12.6	mm
Connector	Torque	8	In-lbs

PCB mechanical drawing. All units in mm [inches]. Connectors not shown.

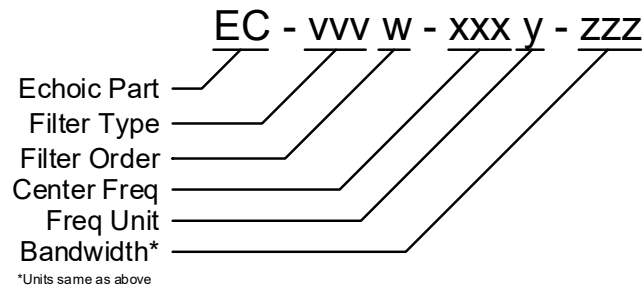


The EC-BSF3-2450M-100 can be used with an optional case.



## Ordering Information

Please use the following model number designation for ordering this and any other part from our filter line:



For example, EC-BSF3-2450M-100 is a third order bandstop filter with center frequency of 2450 MHz and bandwidth of 100 MHz.

## Web Resource

For more information on other industrial RF and microwave solutions please visit our website: [www.echoicrf.com/products](http://www.echoicrf.com/products)

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