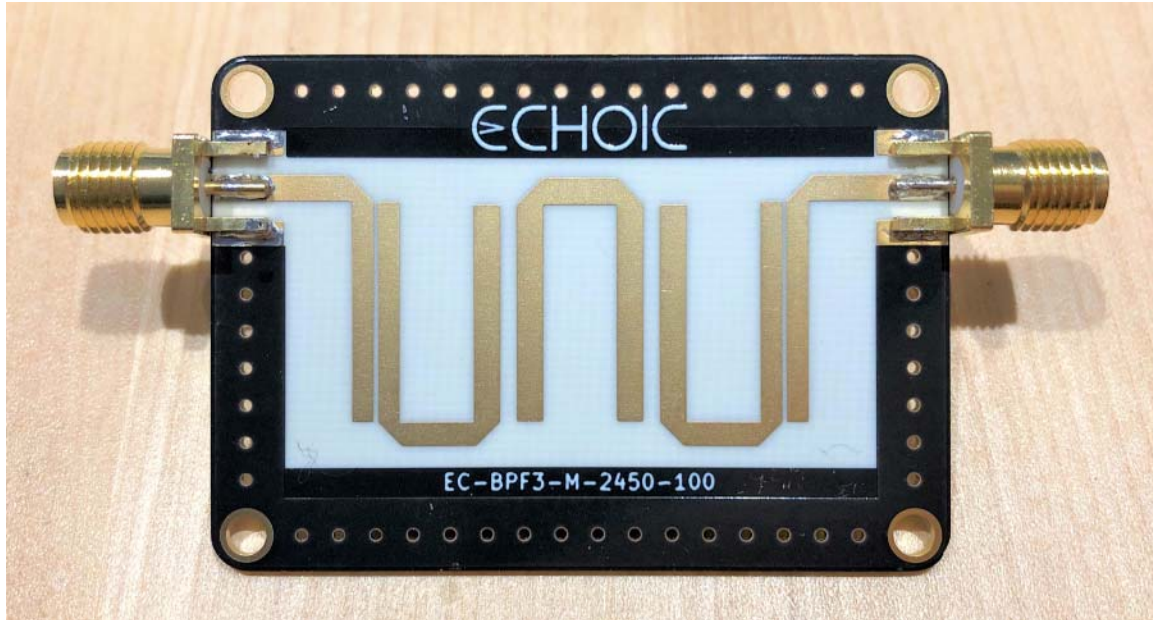


Data Sheet**EC-BPF3-2450M-100 Bandpass Filter for 2.45GHz****Applications**

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

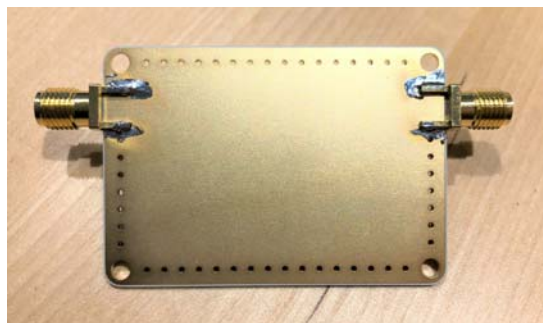
Features

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

Description

The EC-BPF3-2450M-100 is a high performance bandpass filter realized using microstrip transmission-lines on a low-loss microwave laminate. This filter can be used for test and measurement or for educational demonstration. The filter passes the widely-used 2.45 GHz WiFi/ISM/Bluetooth/Zigbee band with a bandwidth of 100 MHz and an out of band rejection of > 35dB at 2.05 GHz and 2.85 GHz. The third order filter is realized using side-coupled microstrip elements for low loss and high power handling and also acts as a DC block. As a transmission line-based microstrip circuit, the filter will exhibit a periodic response at 4.9 GHz. The filter is equipped with female SMA connectors on both ports. The backside solder mask is absent, enabling it to be surface mounted if the connectors are removed.

Backside of EC-BPF3-2450M-100



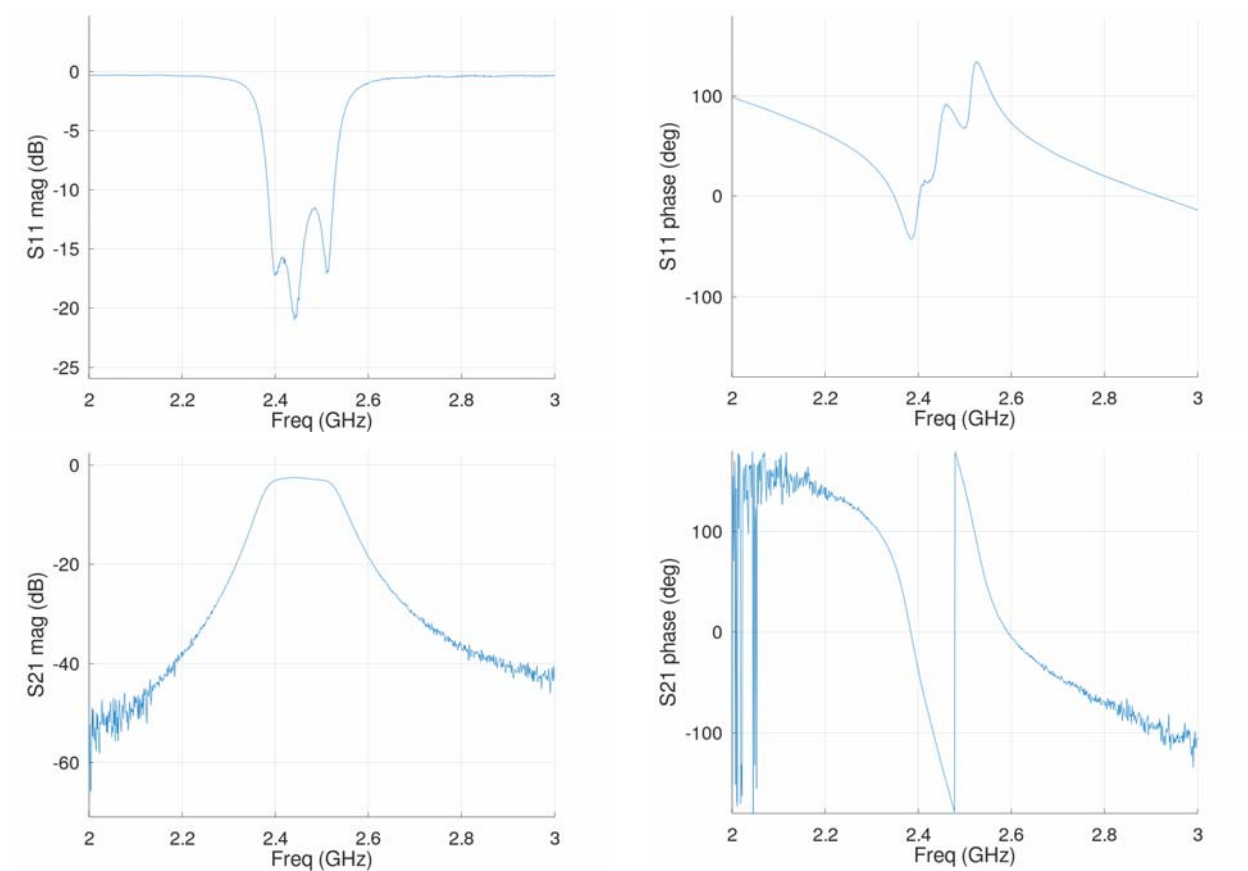
Specifications

| Parameter | Test Cond. | Min. | Typ. | Max. | Units |
|-----------------------|--------------|------|-------|-------|-------|
| Impedance | | | 50 | | Ohm |
| Center Frequency | | | 2.450 | | GHz |
| Bandwidth | 3dB BW | | 100 | | MHz |
| Passband VSWR | | | | 1.7:1 | |
| In-band loss | | | 2 | | dB |
| Out-of-band rejection | At 2.050 GHz | 50 | | | dB |
| | At 2.850 GHz | 35 | | | dB |
| Input power | CW | | | 10* | Watts |

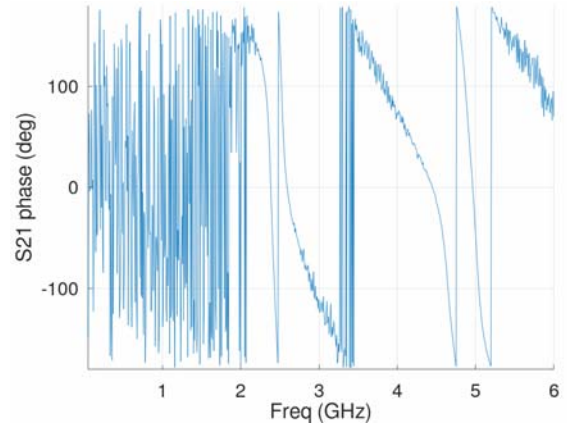
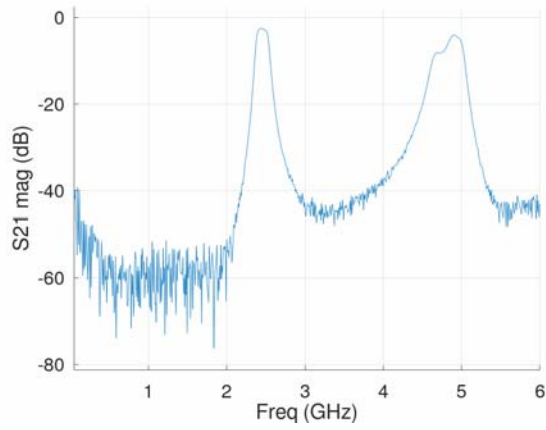
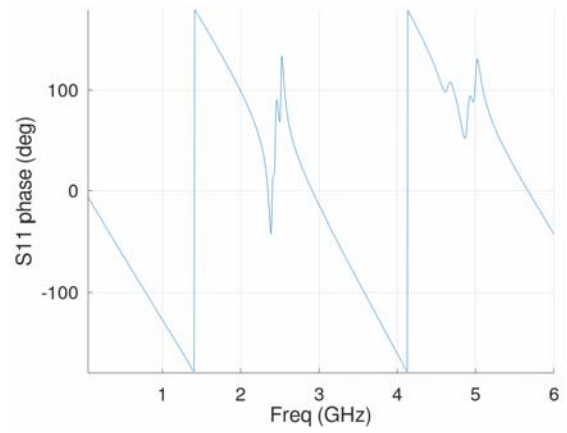
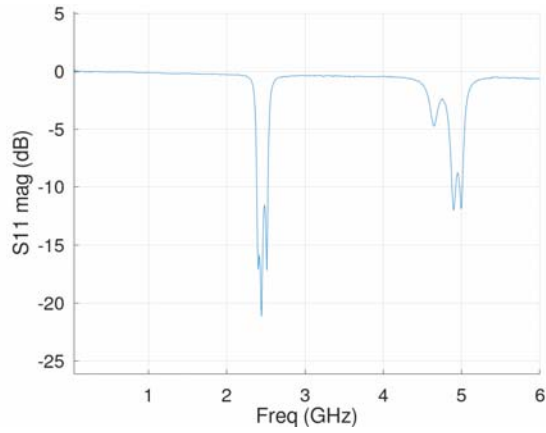
*to be verified

Performance

Typical performance shown from 2 to 3 GHz



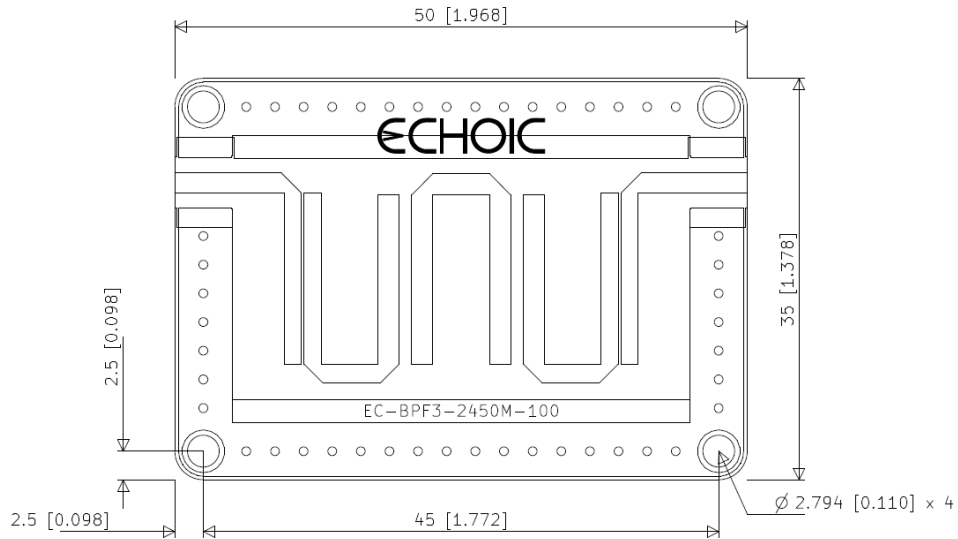
Typical performance shown from 0.1 to 6 GHz



Mechanical

| <i>Configuration</i> | <i>Parameter</i> | <i>Typical</i> | <i>Units</i> |
|---------------------------------------------------|------------------|----------------|--------------|
| PCB only (without case and without connectors) | Width | 35 | mm |
| | Length | 50 | mm |
| | Height | 0.95 | mm |
| PCB and case (without connector) | Width | 35 | mm |
| | Length | 50 | mm |
| | Height | 12.6 | mm |
| Connector | Torque | 8 | In-lbs |

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

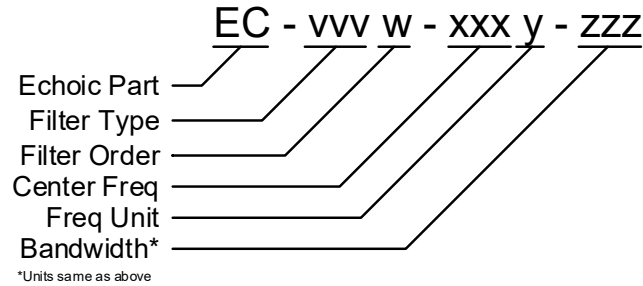


The EC-BPF3-2450M-100 can be used with an optional case .



Ordering Information

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



For example, EC-BPF3-2450M-100 is an Echoic part, third order bandpass 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 online store 5G Links: www.5glinks.com

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