



LTCC COAXIAL

Bandpass Filter

VBF-2450+50 Ω

2400 to 2550 MHz SMA Female/Male

KEY FEATURES

- Sharper Roll-off
- Return Loss, 14 dB Typ.
- Stopband Rejection, 30 dB Typ.
- Rugged Unibody Construction
- Power Handling: 2 Watts



Generic photo used for illustration purposes only

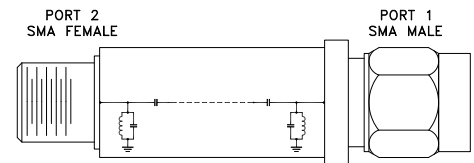
APPLICATIONS

- Harmonic Rejection
- ISM Band 2.4 - 2.485 GHz

PRODUCT OVERVIEW

VBF-2450+ is a 50 Ω bandpass filter built in rugged unibody construction. Covering 2400-2550 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VBF-2450+ offer good insertion loss, and excellent power handling capability. It handles up to 2W RF input power and provides a wide operating temperature range from -40°C to +85°C.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS^{1,2} AT +25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Center Frequency ³	—	—	—	2450	—	MHz
Passband Insertion Loss	F1-F2	2400 - 2550	—	2.4	4	dB
Passband Return Loss	F1-F2	2400 - 2550	—	14	—	dB
Stopband, Lower Rejection	DC-F3	DC - 2100	—	30	—	dB
Stopband, Upper Rejection	F4-F5	3400 - 12000	—	25	—	dB

1. This filter is bi-directional RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

2. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

3. Typical variation $\pm 5\%$

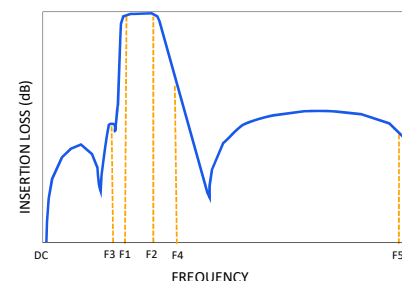
ABSOLUTE MAXIMUM RATINGS⁴

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ⁵	2 W @ +25°C

4. Permanent damage may occur if any of these limits are exceeded.

5. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 0.5 W at +85°C.

TYPICAL FREQUENCY RESPONSE AT +25°C





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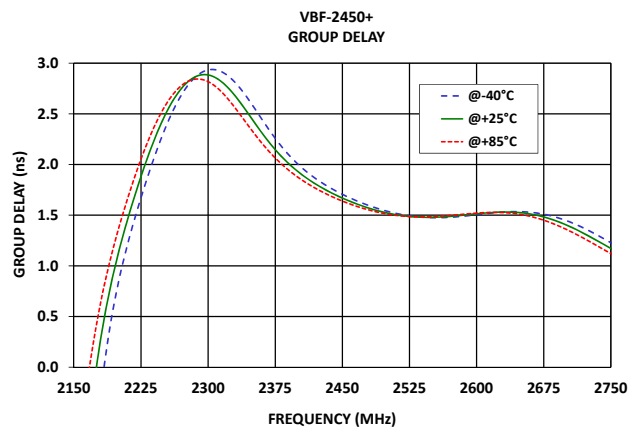
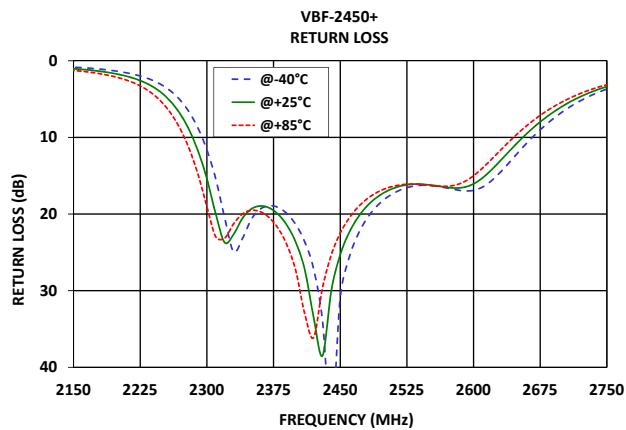
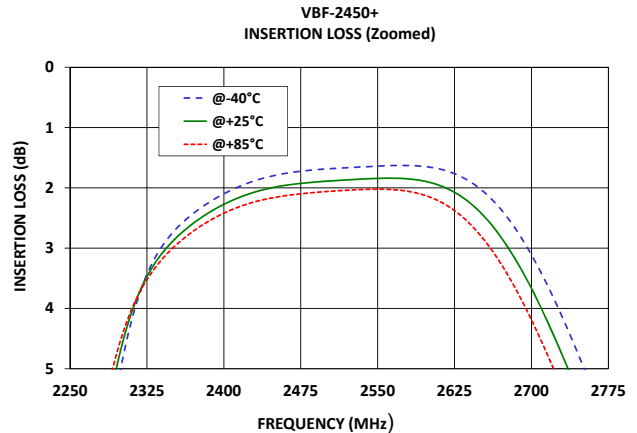
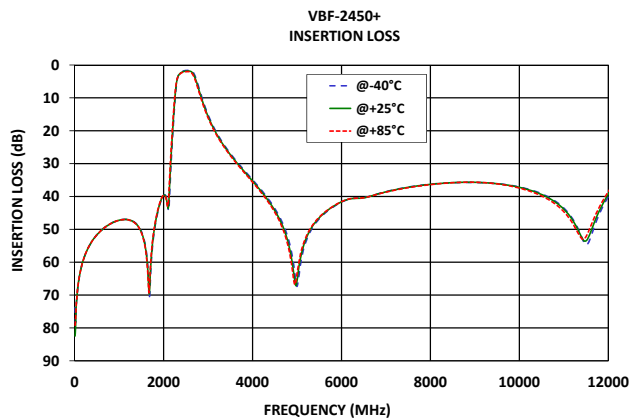
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TYPICAL PERFORMANCE GRAPHS

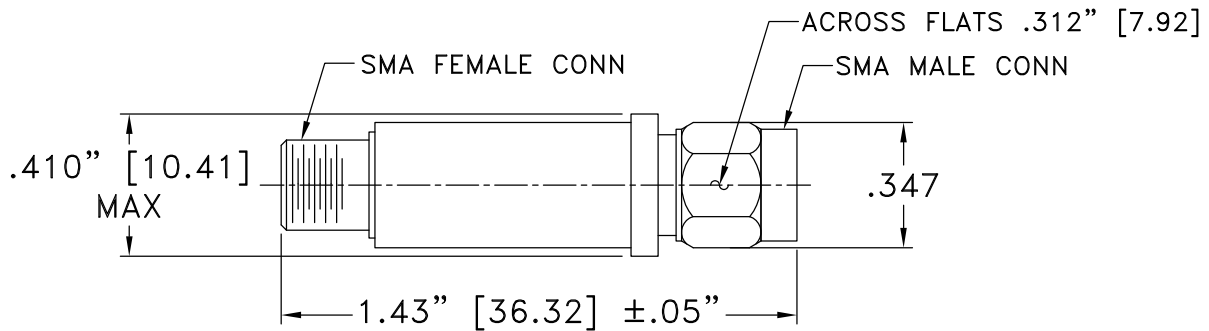




CONNECTOR DESCRIPTION

Function	Functionality	Connector
RF1 ¹	Port-1	SMA MALE
RF2 ¹	Port-2	SMA FEMALE

CASE STYLE DRAWING



Unit weight: 10.0grams

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm.04$ "; 3 Pl. $\pm.30$ "

PRODUCT MARKING*: VBF-2450+

*Marking may contain other features or characters for internal lot control.



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Bandpass Filter

VBF-2450+

50Ω

2400 to 2550 MHz

SMA Female/Male

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	FF704
RoHS Status	Compliant
Environmental Ratings	ENV113

NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

