



THE BIG DEAL

- Low Insertion Loss, 0.4 dB Typ.
- Good Return Loss, 20 dB Typ.
- Good Rejection
- Power Handling: 20 Watts
- Stopband Up to 11.5 GHz

APPLICATIONS

- Aerospace and Defense
 - ECM / Jamming
- Test & Measurement

PRODUCT OVERVIEW

Mini-Circuits' ZVBP-5G-S+ is a coaxial cavity filter designed by implementing resonant structures with very high Q and are ideal for narrow-band, high-selectivity applications.

Mini-Circuits' coaxial cavity filters feature a special protective assembly to prevent accidental de-tuning that would otherwise require expensive replacement or return to factory for re-tuning. Precise machining allows realization of cavity filters with small form factors for applications where size is critical.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



KEY FEATURES

Features	Advantages
Low Insertion Loss, 0.4 dB Typ.	Low signal loss results in better SNR in receiver front end and better power delivery to antenna in transmitter.
Fast roll-off (97%, 0.5dB/MHz @ 20dB point)	Higher selectivity results in better adjacent channel rejection and dynamic range.
High power handling, 20W	Well suited for transmitter application.
Protective assembly	Prevents accidental de-tuning of precisely tuned resonant circuit.



CAVITY COAXIAL

Bandpass Filter

ZVBP-5G-S+

Mini-Circuits

50Ω 4.7 to 5.3 GHz

ELECTRICAL SPECIFICATIONS AT +25°C

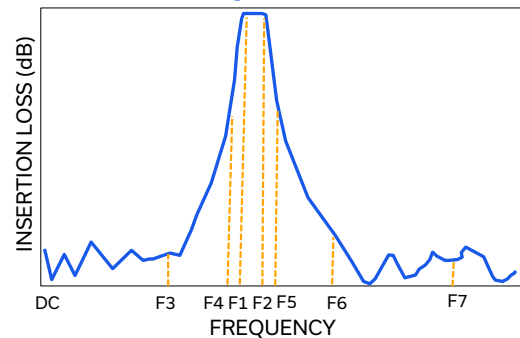
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	—	—	5000	—	MHz
	Insertion Loss	F1-F2	4700 - 5300	—	0.4	0.7	dB
	Return Loss	F1-F2	4700 - 5300	14	20	—	dB
Stop Band, Lower	Rejection	DC-F3	DC - 2500	75	86	—	dB
		F3-F4	2500 - 4500	14	17	—	
Stop Band, Upper	Rejection	F5-F6	5500 - 7500	14	17	—	dB
		F6-F7	7500 - 11500	75	89	—	

ABSOLUTE MAXIMUM RATINGS^{1,2}

Parameter	Ratings
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C
Input Power	20W max. at 25°C

1. Permanent damage may occur if any of these limits are exceeded.
2. Input and output ports are DC short to ground.

TYPICAL FREQUENCY RESPONSE





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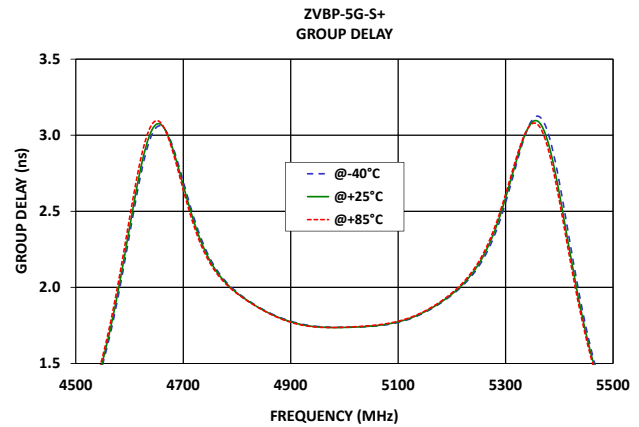
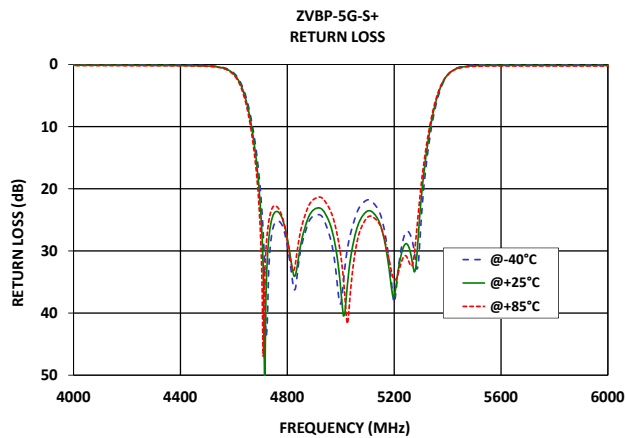
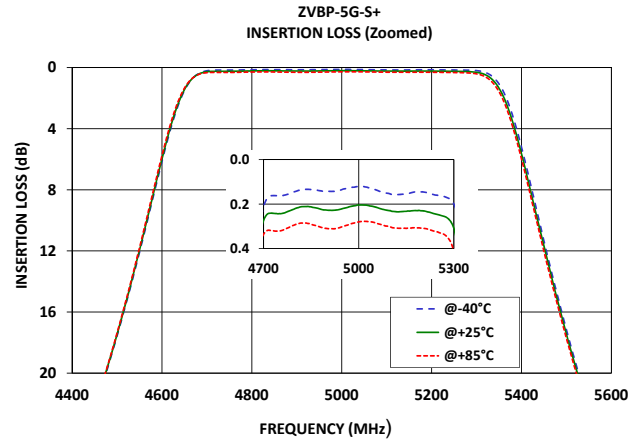
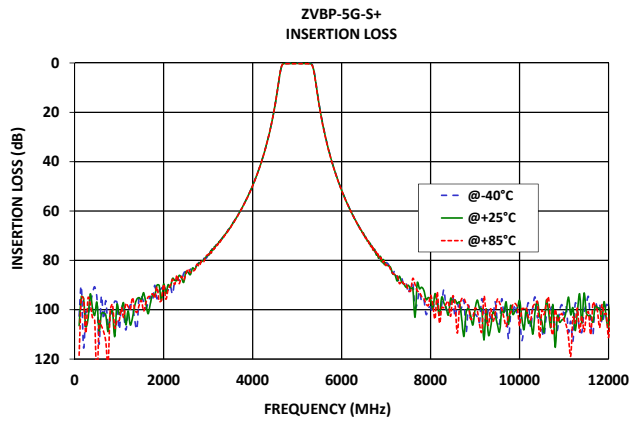
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TYPICAL PERFORMANCE GRAPHS





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Bandpass Filter

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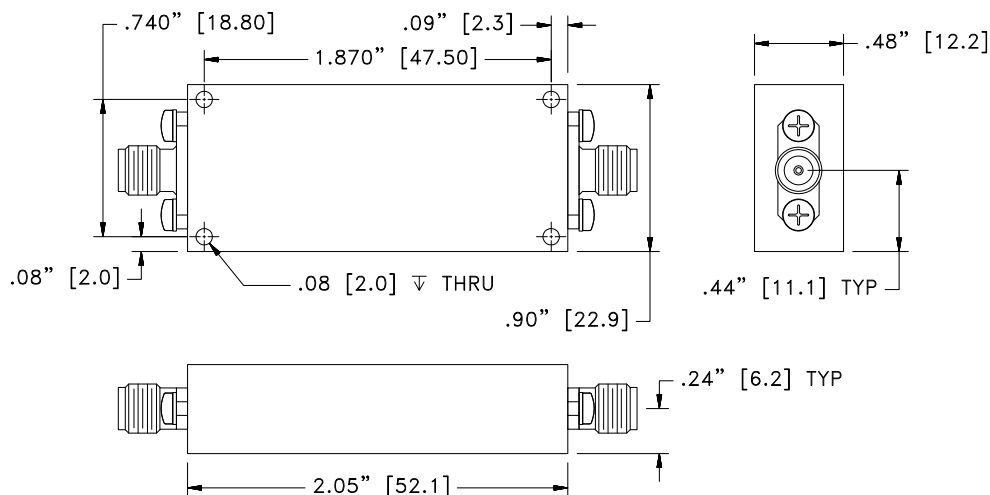
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CONNECTOR SPECIFICATIONS

Description	RF1-Port	RF2-Port
Connector Type	SMA-Female	SMA-Female
Orientation	Straight	Straight
Impedance	50 Ω	50 Ω
Connector Body	Stainless Steel Passivated	Stainless Steel Passivated
Center Contact	Beryllium Copper	Beryllium Copper
Housing	2-Hole Flange	2-Hole Flange
Insulator	PTFE	PTFE

OUTLINE DRAWING



Weight: 80 grams

Dimensions are in inches[mm]. Tolerance: 2PL. $\pm$.100; 3PL. $\pm$.015

PRODUCT MARKING*: ZVBP-5G-S+

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





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Bandpass Filter

ZVBP-5G-S+

50Ω 4.7 to 5.3 GHz

ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASH BOARD

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Performance Data and Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	YL3242
RoHs Status	Compliant
Environmental Rating	ENV46

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



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