



LUMPED LC COAXIAL

High Pass Filter

ZHPB-500-S+

50Ω 0.5 to 14 GHz SMA Female

KEY FEATURES

- Low Insertion Loss, 0.9 dB Typ.
- Good Return Loss, 15 dB Typ.
- Good Rejection, 45 dB Typ.

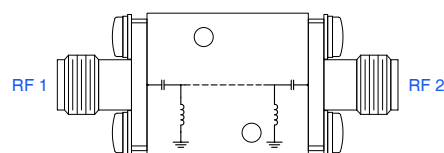
APPLICATIONS

- Test and Measurement



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

Mini-Circuits' ZHPB-500-S+ is a high pass filter built in broadband connectorized package. Covering 0.5-14 GHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZHPB-500-S+ offer good return loss up to 14 GHz and excellent insertion loss of 0.9 dB Typ.

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter		F#	Frequency (GHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	F3-F4	0.5 - 8	—	0.9	2.0	dB
		F4-F5	8 - 14	—	2.5	—	
	Return Loss	F3-F4	0.5 - 8	12	15	—	dB
		F4-F5	8 - 14	—	10	—	
Stopband	Rejection	DC-F1	DC - 0.15	35	45	—	dB
		F1-F2	0.15 - 0.2	20	30	—	
	Freq. Cut-Off ¹	Fc	0.4	—	3	—	dB

1. Typical variation ± 5%.

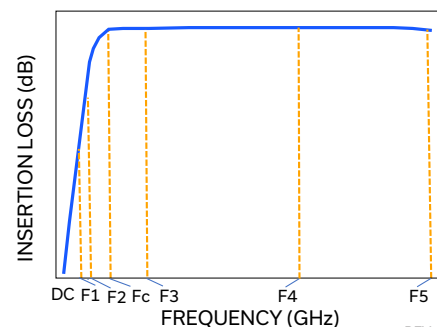
ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ³	1 W at 25°C

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

3. Power rating applies only to signals within the passband.

TYPICAL FREQUENCY RESPONSE





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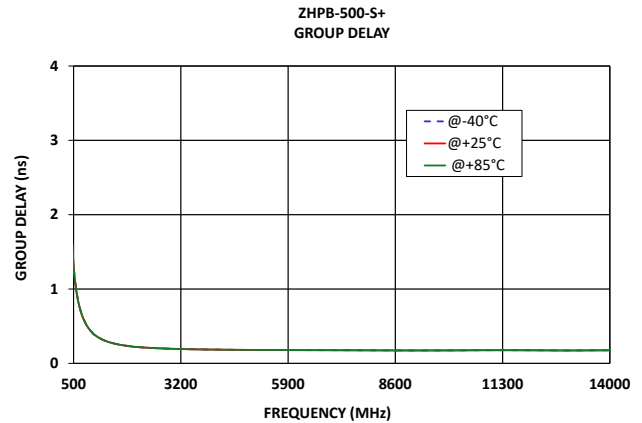
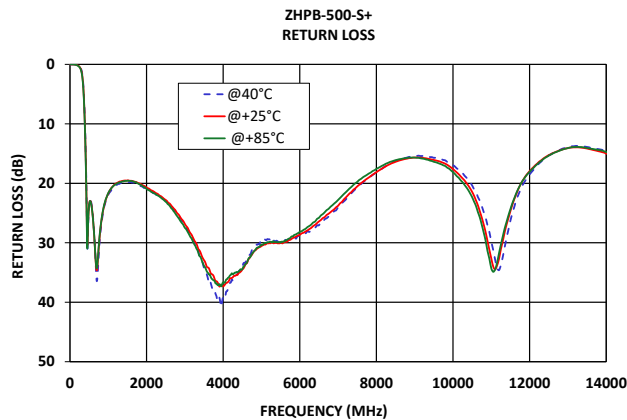
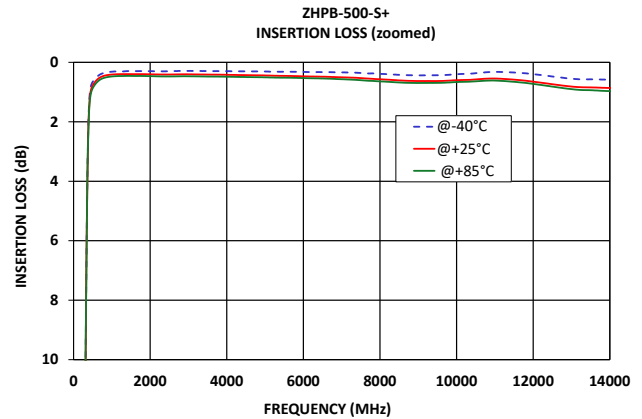
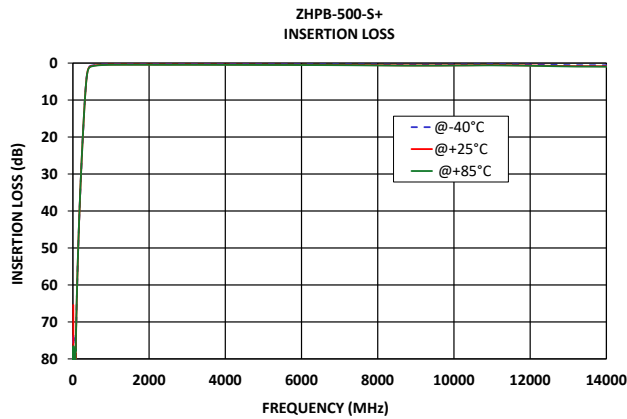
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TYPICAL PERFORMANCE GRAPHS





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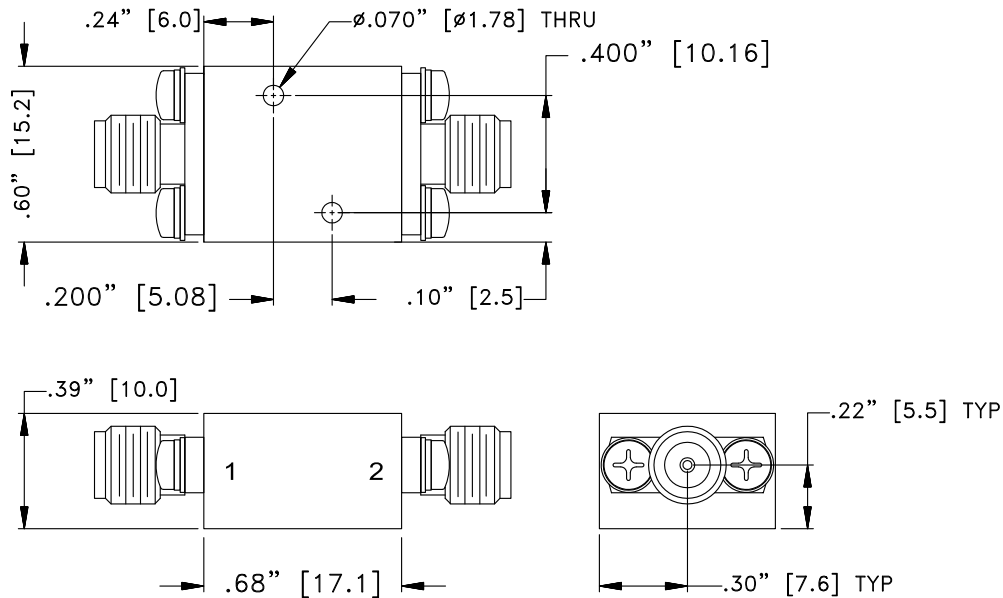
50Ω 0.5 to 14 GHz SMA Female

CONNECTOR DESCRIPTION

Function	Connector
RF1 ⁴	SMA Female
RF2 ⁴	SMA Female

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

CASE STYLE DRAWING



Unit weight: 24grams

Dimensions are in inches (mm). Tolerances: 2 Pl.±.050"; 3 Pl.±.015"

PRODUCT MARKING*: ZHPB-500-S+

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



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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	UK3042
RoHs Status	Compliant
Environmental Ratings	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

