



Mini-Circuits

LUMPED LC COAXIAL

Bandpass Filter

ZX75BP-253-S+

50 Ω 186 to 340 MHz SMA-Male to SMA-Female

KEY FEATURES

- Insertion Loss, 3dB Max.
- Pass Band Return Loss, 12dB Typ.
- Stop Band Rejection, 35dB Min.

APPLICATIONS

- Aircraft Communication
- Navigation

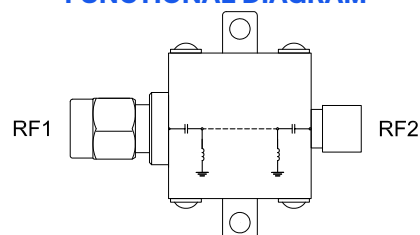
PRODUCT OVERVIEW

ZX75BP-253-S+ is a 50 Ω bandpass filter in a connectorized package covering 186 to 340MHz. This offers good matching within the passband and high rejection in stopband.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM

ELECTRICAL SPECIFICATIONS¹ AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	253	—	—	—	MHz
	Insertion Loss	F1-F2	186 - 340	—	—	3	dB
	Return Loss	F1-F2	186 - 340	9	11.7	—	dB
Stop Band, Lower	Rejection	DC-F3	DC - 120	35	—	—	dB
		F3-F4	120 - 140	20	—	—	
Stop Band, Upper	Rejection	F5-F6	440 - 500	20	—	—	dB
		F6-F7	500 - 3000	35	—	—	

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

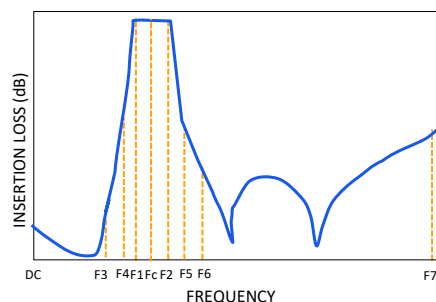
ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ³	0.5W 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 AT +25°C



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PAGE 1 OF 4



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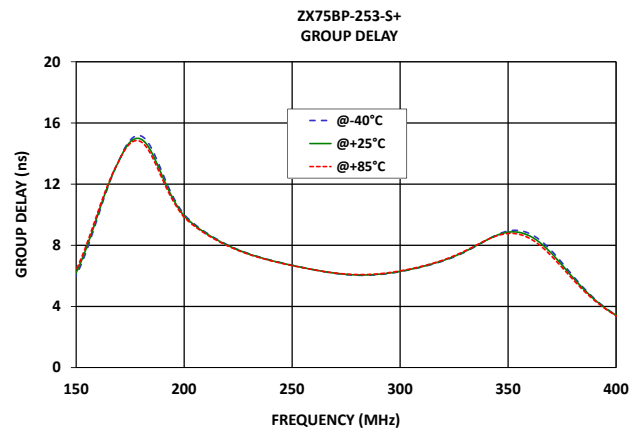
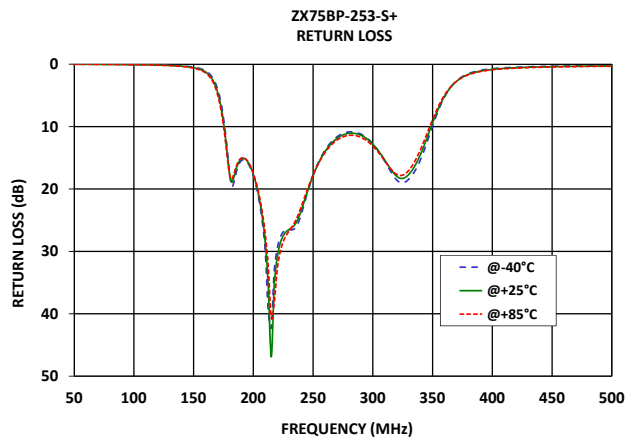
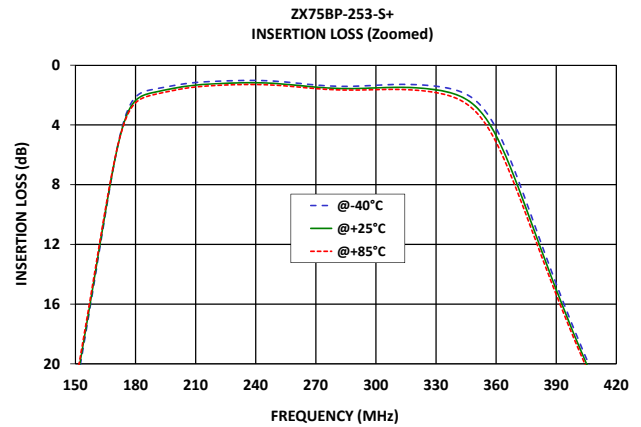
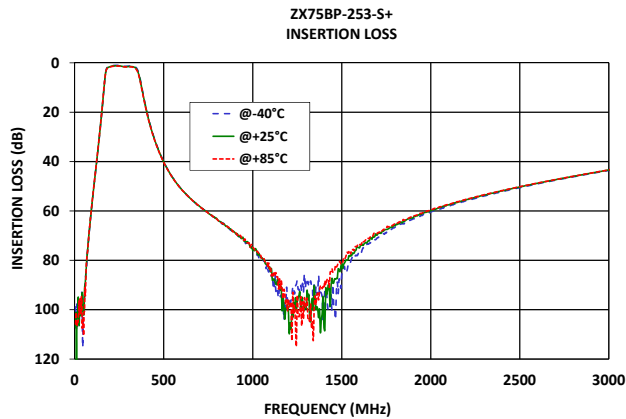
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TYPICAL PERFORMANCE GRAPHS





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Function	Marking on Unit	Connector
RF1 ¹	1	SMA Male
RF2 ¹	2	SMA Female

Technical drawing of the SMA connector assembly, showing front and side views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall height: 1.18 [29.97]
- Distance from top edge to center of SMA Male Connector: 1.00 [25.40]
- Distance from center of SMA Male Connector to center of SMA Female Connector: .75 [19.05]
- Distance from center of SMA Male Connector to center of SMA Female Connector: .362 [9.19]
- Distance from center of SMA Female Connector to right edge: .37 [9.40]
- Distance from center of SMA Female Connector to right edge: .74 [18.80]
- Distance from center of SMA Female Connector to right edge: .37 [9.40]
- Distance from center of SMA Female Connector to right edge: .74 [18.80]
- Distance from center of SMA Female Connector to right edge: .37 [9.40]
- Distance from center of SMA Female Connector to right edge: .74 [18.80]

Side View Dimensions:

- Overall width: .46 [11.68]
- Distance from left edge to center of SMA Male Connector: .21 [5.33]
- Distance from center of SMA Male Connector to center of SMA Female Connector: .362 [9.19]
- Distance from center of SMA Female Connector to right edge: .04 [1.02]

Labels:

- SMA MALE CONN.
- SMA FEMALE CONN.
- 2X .18 [4.57]
- 2 X Ø .11 [2.79] THRU

**Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$
Tolerance on hole size and interaxes dimensions to be $\pm .005$.**

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





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

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Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	KE1467
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



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