



THIN FILM COAXIAL

# Bandpass Filter

ZABF-K7125+

Mini-Circuits

50Ω

6750 to 7500 MHz

2.92mm Female

## KEY FEATURES

- Low Passband Insertion Loss 2.1 dB Typ.
- High Rejection 53 dB Typ.
- Small Size



Generic photo used for illustration purposes only

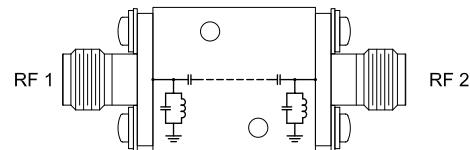
## APPLICATIONS

- Wireless Communication Systems
- Military and Defense
- Test and Measurement

## PRODUCT OVERVIEW

Mini-Circuits' Connectorized Thin-Film filters offer low insertion loss and high rejection realized via Thin-Film on Alumina substrate, using a sputtering process that can guarantee an enhanced Q and repeatable performance. Low pass, high pass, and bandpass connectorized thin-film designs can be realized with this technology up to 40 GHz in a small form factor helping customers achieve their SWaP objectives. Using our high quality thin-film manufacturing process we can guarantee repeatability on large batches of filters.

## FUNCTIONAL DIAGRAM



## ELECTRICAL SPECIFICATIONS AT<sup>1</sup> +25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency <sup>2</sup>	—	—	7125	—	MHz
	Insertion Loss	F1-F2	6750 - 7500	2.1	3	dB
	Return Loss	F1-F2	6750 - 7500	12	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 5250	53	—	dB
		F3-F4	5250 - 5800	37	—	
Stopband, Upper	Rejection	F5-F6	8500 - 9000	45	—	dB
		F6-F7	9000 - 13000	46	—	
		F7-F8	13000 - 14000	40	—	

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

2. Typical variation ± 3%

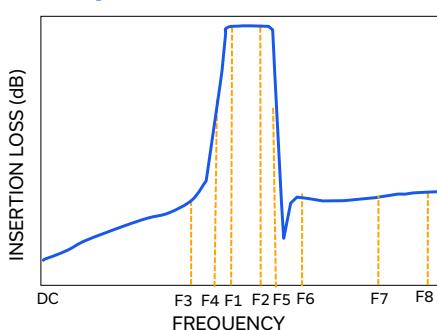
## ABSOLUTE MAXIMUM RATINGS<sup>3</sup>

Parameter	Ratings
Operating Temperature	-55 °C to +125 °C
Storage Temperature	-55 °C to +125 °C
Input Power <sup>4</sup>	1W Max. at 25 °C

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

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

## TYPICAL FREQUENCY RESPONSE AT+25°C



REV. OR  
ECO-023582  
ZABF-K7125+  
EDU4485  
URJ  
241120

**Mini-Circuits**

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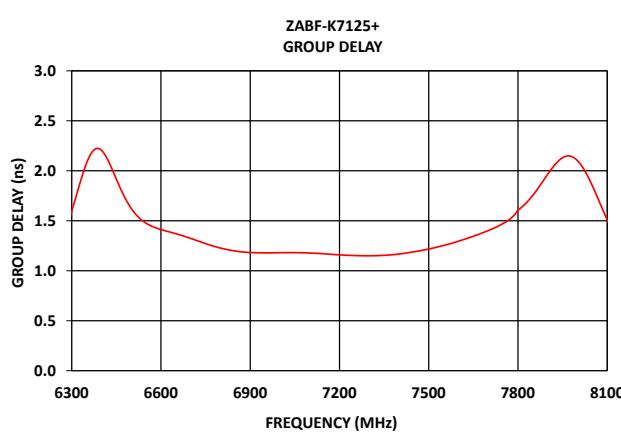
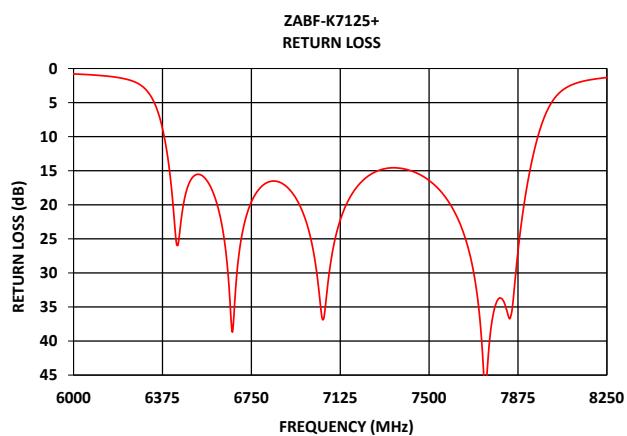
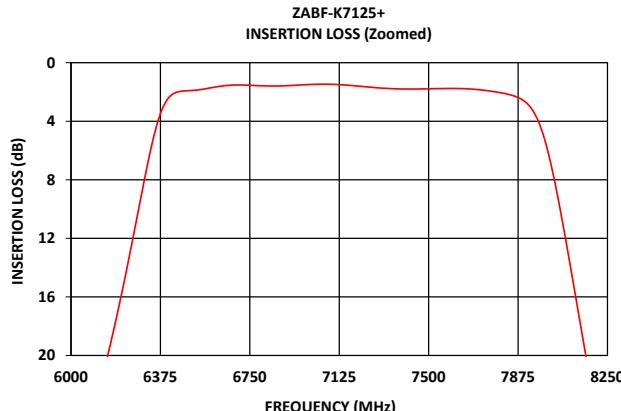
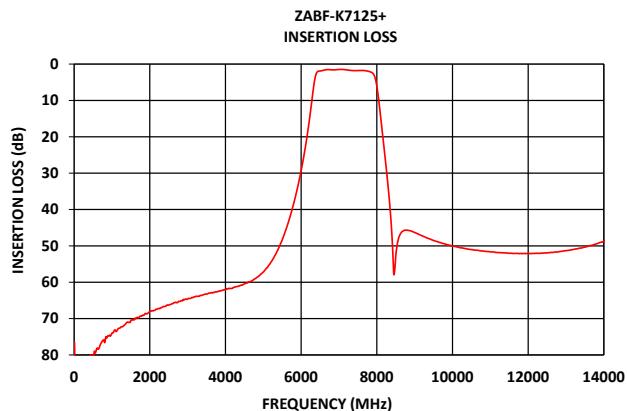
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## TYPICAL PERFORMANCE GRAPHS AT +25°C





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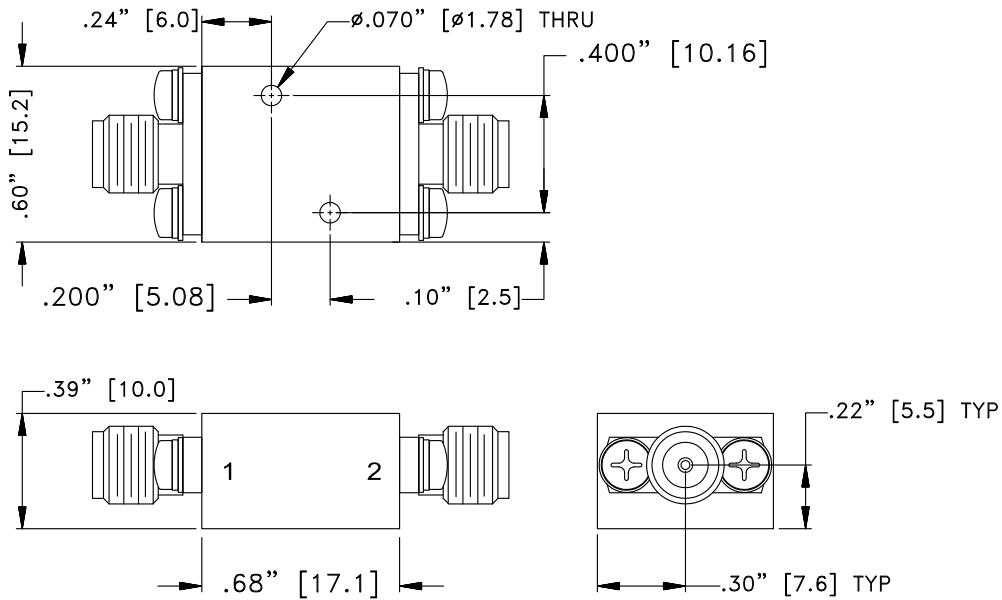
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## CONNECTOR DESCRIPTION

Function	Marking on Unit	Connector
RF1 <sup>1</sup>	1	2.92mm Female
RF2 <sup>1</sup>	2	2.92mm Female

## CASE STYLE DRAWING



Unit weight: 24grams

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

## PRODUCT MARKING\*: ZABF-K7125+

\*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	<a href="#">Data</a> <a href="#">Graphs</a> <a href="#">S-Parameter (S2P Files) Data Set (.zip file)</a>
Case Style	UK3042
RoHS Status	Compliant
Environmental Ratings	ENV144

**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](http://www.minicircuits.com/terms/viewterm.html)

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