



THIN FILM COAXIAL

Bandpass Filter

ZABF-K10R125G+

50Ω 9.35 to 10.9 GHz 2.92mm Female

KEY FEATURES

- Low Passband Insertion Loss 2 dB Typ.
- High Rejection 53 dB Typ.
- Small Size

APPLICATIONS

- X-band Radar
- Test and Measurement

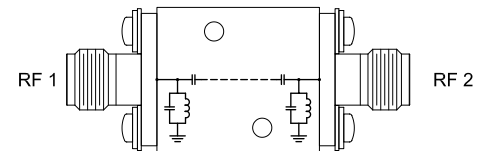


Generic photo used for illustration purposes only

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 SPECIFICATIONS¹ AT +25°C

Parameter		F#	Frequency (GHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency ²	—	—	—	10.125	—	GHz
	Insertion Loss	F1-F2	9.35 - 10.9	—	2	2.5	dB
	Return Loss	F1-F2	9.35 - 10.9	—	10	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 6	40	50	—	dB
		F3-F4	6 - 7.5	20	30	—	
Stopband, Upper	Rejection	F5-F6	13 - 15	20	30	—	dB
		F6-F7	15 - 18	40	53	—	
		F7-F8	18 - 23	—	30	—	

1. 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.

2. Typical variation $\pm 3\%$

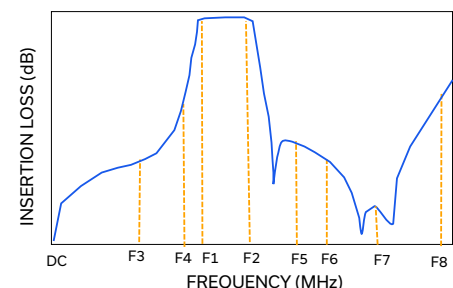
ABSOLUTE MAXIMUM RATINGS³

Parameter	Ratings
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +125°C
Input Power ⁴	8 W at 25 °C

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

4. Power rating applies only to signals with in the passband.

TYPICAL FREQUENCY RESPONSE AT +25°C





THIN FILM COAXIAL

Bandpass Filter

ZABF-K10R125G+

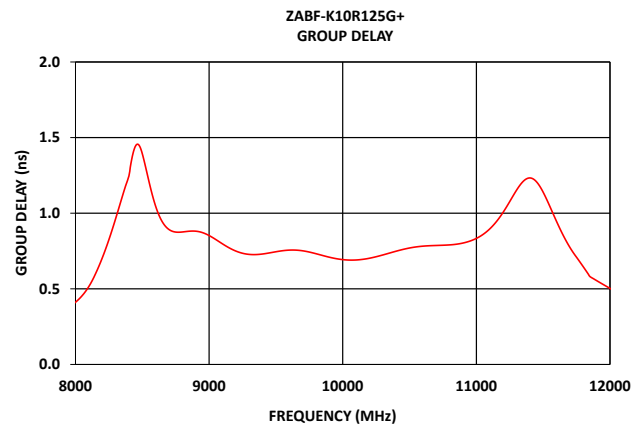
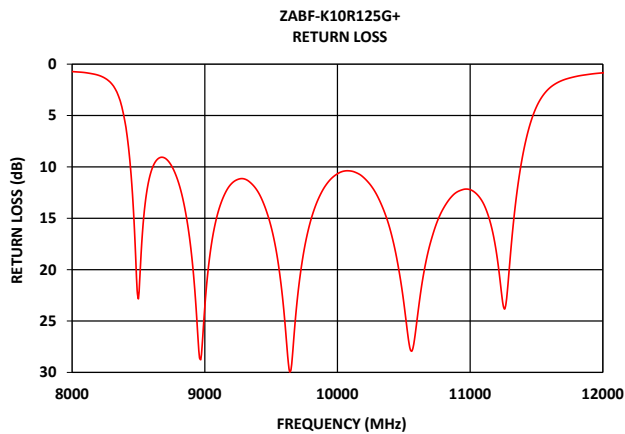
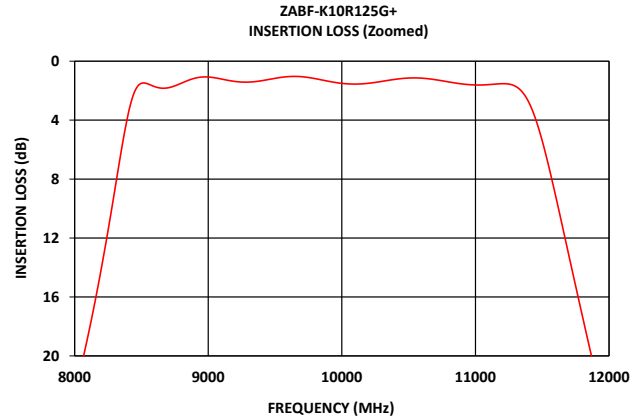
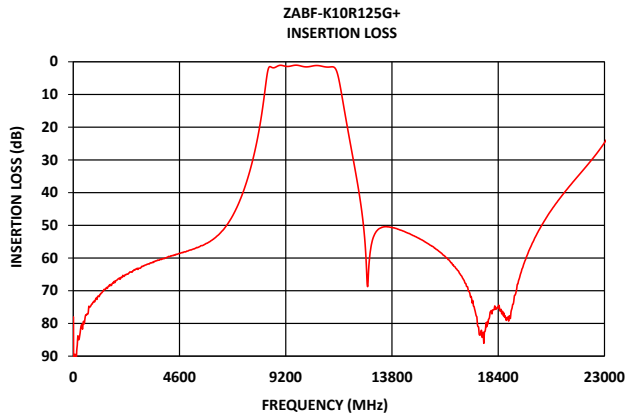
Mini-Circuits

50 Ω

9.35 to 10.9 GHz

2.92mm Female

TYPICAL PERFORMANCE GRAPHS AT +25°C



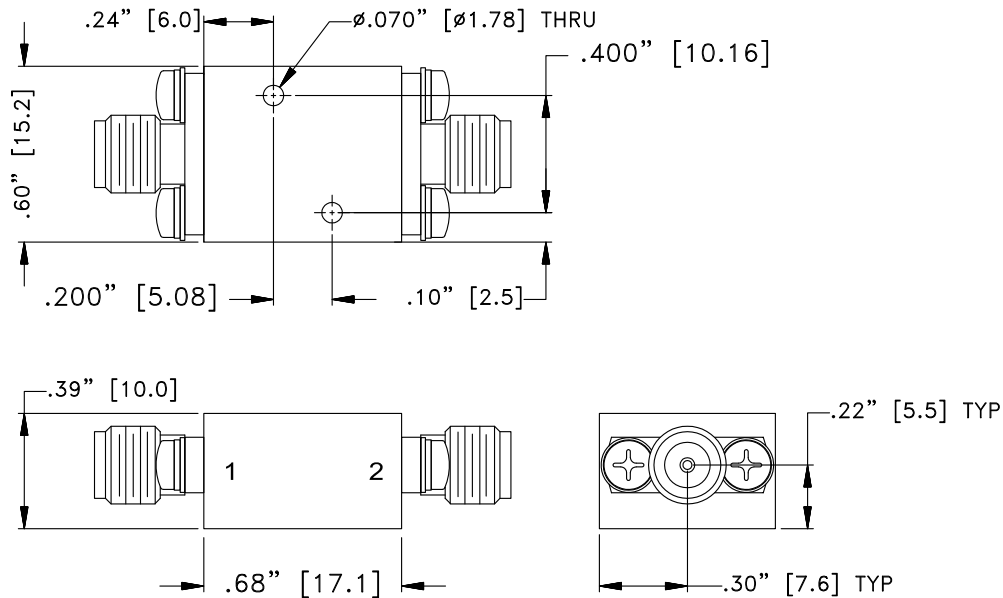


CONNECTOR DESCRIPTION

Function	Connector
RF1 ⁵	2.92mm Female
RF2 ⁵	2.92mm Female

5. 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. $\pm .050$ "; 3 Pl. $\pm .015$ "

PRODUCT MARKING*: ZABF-K10R125G+

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



Mini-Circuits

THIN FILM COAXIAL

Bandpass Filter

ZABF-K10R125G+

50Ω

9.35 to 10.9 GHz

2.92mm Female

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	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

