THIN FILM COAXIAL

Bandpass Filter

ZABF-6R5G-S+

50Ω 6100 to 6900 MHz SMA Male/Female

KEY FEATURES

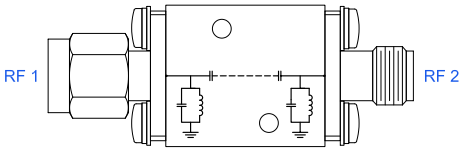
- Low Passband Insertion Loss, 2 dB Typ.
- High Rejection, 52 dB Typ.
- Small Size

Generic photo used for illustration purposes only

APPLICATIONS

- Wireless Telecommunication
- C-Band

FUNCTIONAL DIAGRAM



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.

ELECTRICAL SPECIFICATIONS[1] AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
	Center Frequency[2]	—	—	—	6500	—	MHz
Passband	Insertion Loss	F1-F2	6100 - 6900	—	2.0	3.5	dB
	Return Loss	F1-F2	6100 - 6900	—	10	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 4600	40	48	—	dB
		F3-F4	4600 - 5100	20	30	—	
Stopband, Upper	Rejection	F5-F6	7900 - 8800	40	50	—	dB
		F6-F7	8800 - 10500	45	52	—	
		F7-F8	10500 - 13000	—	47	—	

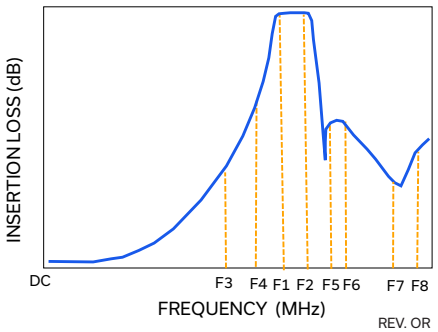
1. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.
2. Typical variation ± 3%

ABSOLUTE MAXIMUM RATINGS[3]

Parameter	Ratings
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +125°C
Input Power[4]	1W 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



REV. OR
ECO-027956
EDU5136
ZABF-6R5G-S+
URJ
251212

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TYPICAL PERFORMANCE GRAPHS AT +25°C

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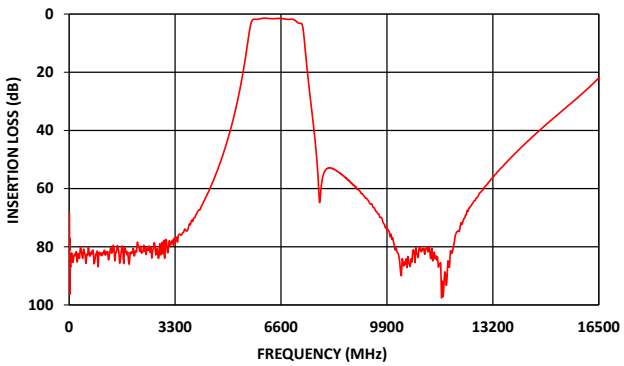
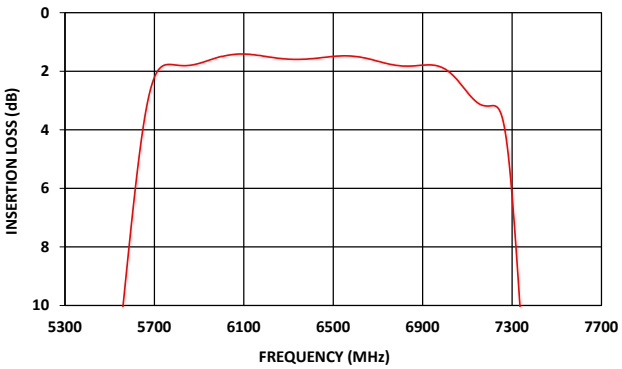
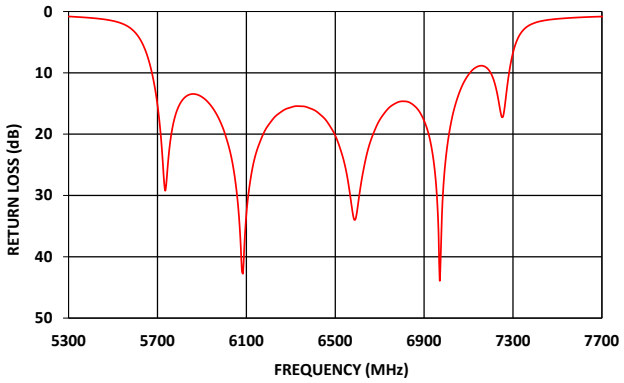
INSERTION LOSS



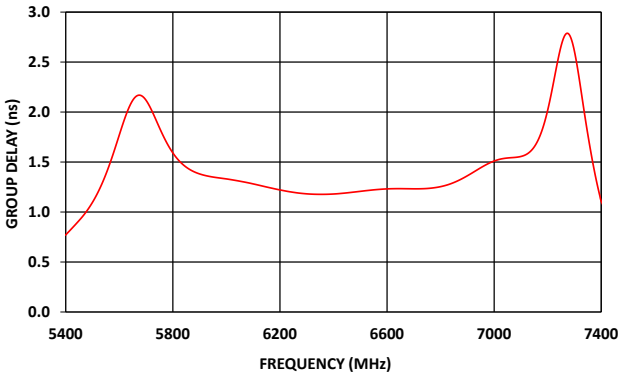
ZABF-6R5G-S+
INSERTION LOSS (Zoomed)



ZABF-6R5G-S+
RETURN LOSS



ZABF-6R5G-S+
GROUP DELAY



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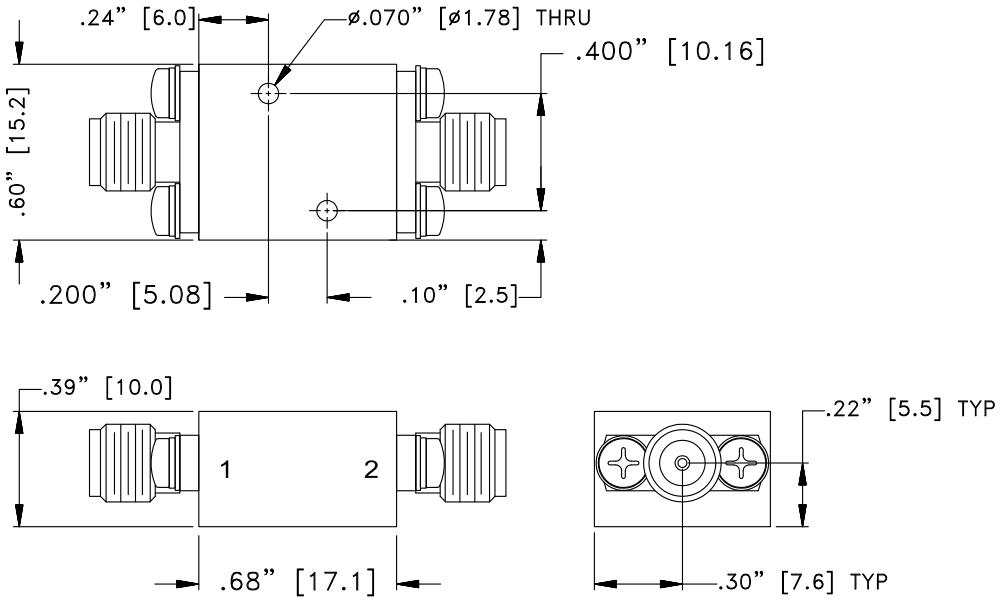
CONNECTOR DESCRIPTION

Function	Connector
RF1[5]	SMA Male
RF2[5]	SMA 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.±.050"; 3 Pl.±.015"

PRODUCT MARKING*: ZABF-6R5G-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	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