



Mini-Circuits

LUMPED LC SURFACE MOUNT

Bandpass Filter

SXBP-75+

50Ω 62 to 88 MHz

KEY FEATURES

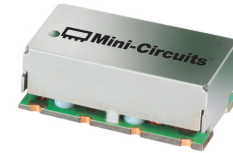
- Low insertion loss, 1.6dB typ.
- Good Return loss, 15dB typ.
- Passband Flatness 0.5dB typ.
- Miniature shielded package.

APPLICATIONS

- Harmonic Rejection.
- Test Equipment.
- Transmitters / Receivers.

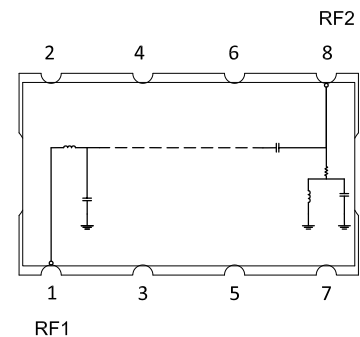
PRODUCT OVERVIEW

The SXBP-75+ is a 50Ω bandpass filter in a shielded package fabricated using SMT technology. This bandpass filter covers from 62 to 88MHz. This filter has high Q capacitors and inductors to achieve a low insertion loss. It has repeatable performance across production lots and consistent performance across temperature.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS¹ AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	F1-F2	62 - 88	—	1.6	2.5	dB
	Return Loss	F1-F2	62 - 88	10	15	—	dB
Stop Band, Lower	Rejection	DC-F3	DC - 28	40	49	—	dB
		F3-F4	28 - 40	30	37	—	
Stop Band, Upper	Rejection	F5-F6	115 - 160	30	38	—	dB
		F6-F7	160 - 1500	40	52	—	
		F7-F8	1500 - 2000	—	40	—	

1. Tested in Evaluation Board P/N TB-SXBP-75+.

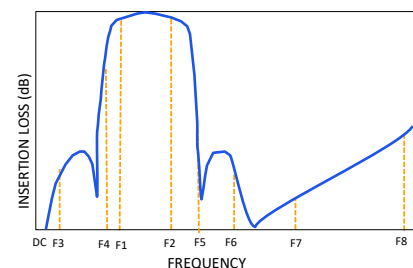
ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C
Input Power ³	0.25 W Max.

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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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

 REV. OR
 ECO-020325
 SXBP-75+
 EDU4686
 URJ
 231219

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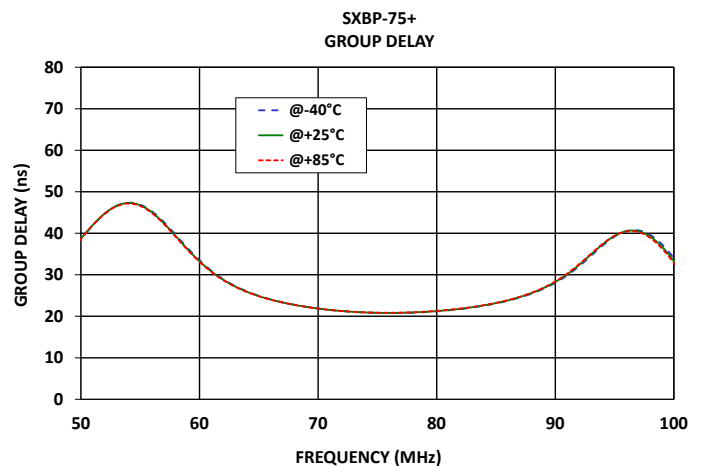
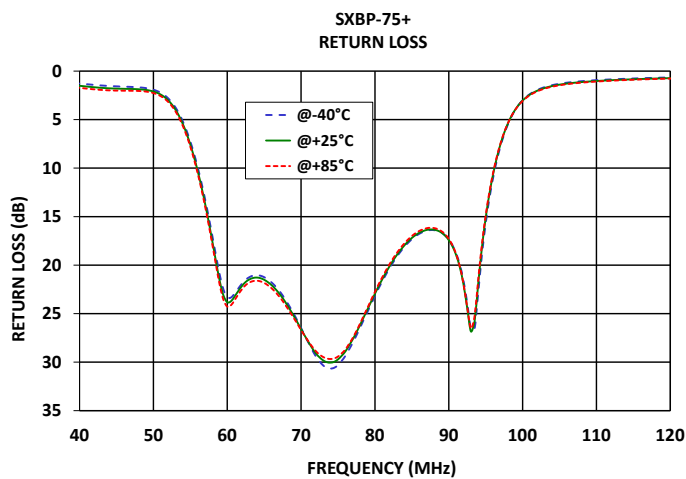
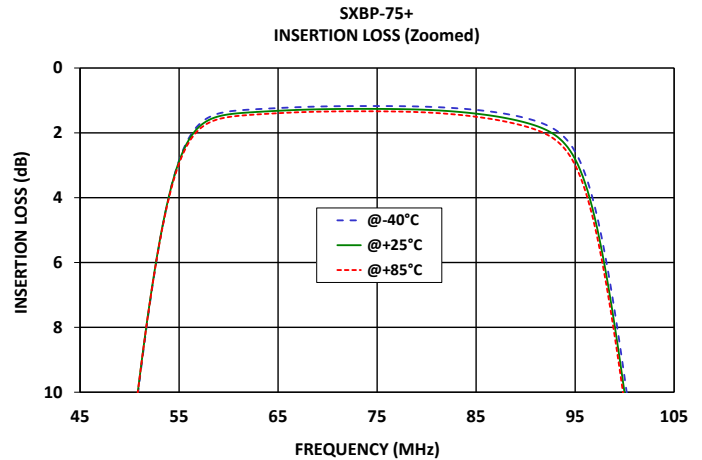
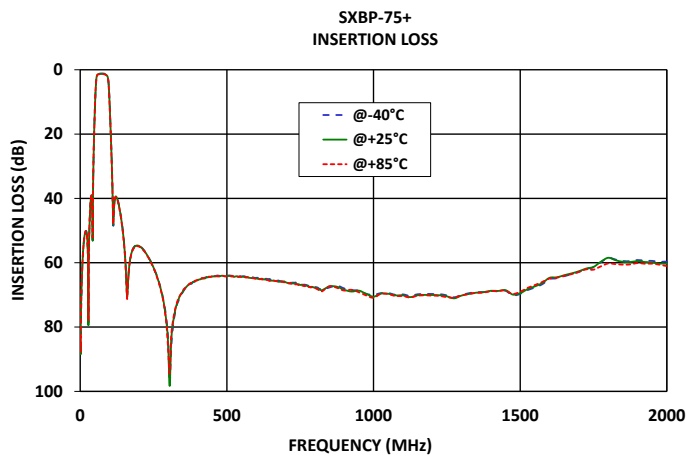
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TYPICAL PERFORMANCE GRAPHS





FUNCTIONAL DIAGRAM

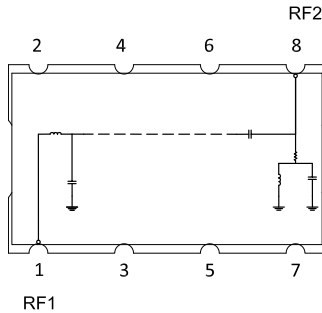


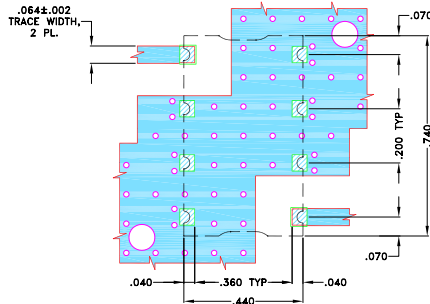
Figure 1. SXBP-75+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1 ⁽²⁾	1	Connects to RF Input Port
RF2 ⁽²⁾	8	Connects to RF Output Port
GROUND	2,3,4,5,6,7	Connects to Ground on PCB, (See drawing PL-449)
NC	—	No connection, not used internally. See drawing PL-449 for connection to PCB

SUGGESTED PCB LAYOUT (PL-449)

SUGGESTED MOUNTING CONFIGURATION FOR
HF1139 CASE STYLE "08FL01" PIN CODE



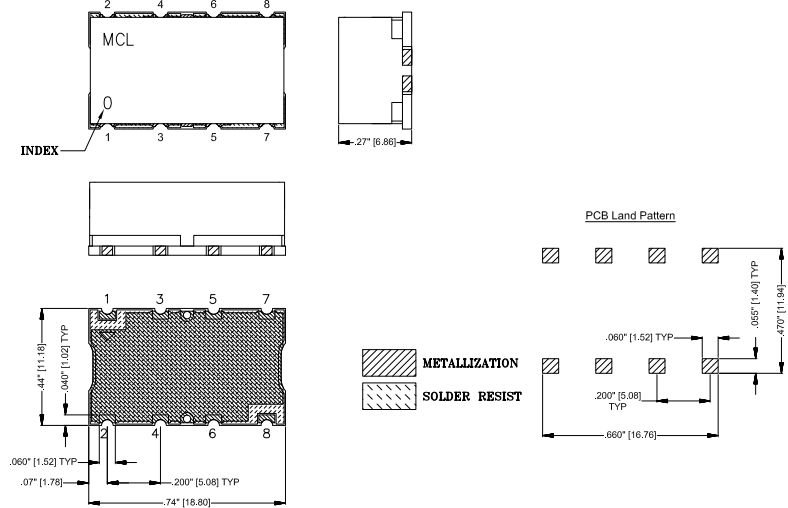
NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS WITH DIELECTRIC THICKNESS $.030 \pm .002$ ". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Figure 2. Suggested PCB Layout PL-449

CASE STYLE DRAWING



Unit weight: 3.0grams

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .015$; 3 Pl. $\pm .01$ "

PRODUCT MARKING*: SXBP-75

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



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ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASH BOARD.

[CLICK HERE](#)

Performance Data and Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file) De-embedded to device pads
Case Style	HF1139 Lead Finish: Gold over Nickel Plate.
RoHS Status	Compliant
Tape and Reel	TR-F5
Suggested Layout for PCB Design	PL-449
Evaluation Board	TB-SXBP-75+
	Gerber File
Environmental Rating	ENV02T1

NOTES

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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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