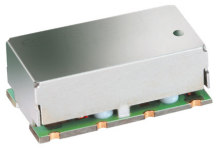
Surface Mount

Bandpass Filter

SXBP-425+

50Ω 410 to 440 MHz



CASE STYLE: HF1139

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

Pin Connections

INPUT	1
OUTPUT	8
GROUND	2, 3, 4, 5, 6, 7

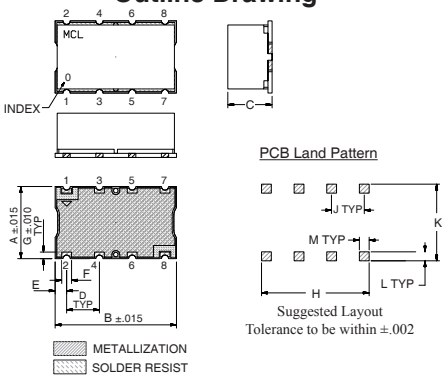
Features

- Linear Phase, up to ±6 deg typical @ Fc ± 15 MHz
- Good VSWR, 1.3:1 typical in Passband
- High rejection
- Shielded case
- Aqueous washable

Applications

- Industrial Microwave and RF
- Receivers / Transmitters
- Harmonic rejection

Outline Drawing

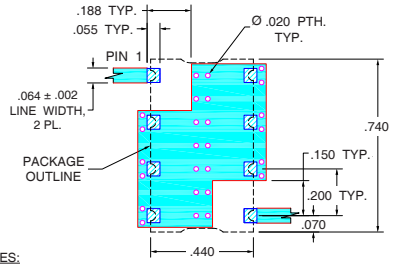


Outline Dimensions (inch / mm)

A	B	C	D	E	F
.440	.740	.270	.200	0.70	0.60
11.18	18.80	6.86	5.08	1.78	1.52

G	H	J	K	L	M	wt.
.040	.660	.200	.470	.055	.060	grams
1.02	16.76	5.08	11.94	1.40	1.52	3

Demo Board MCL P/N: TB-368
Suggested PCB Layout (PL-230)



NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS. .025"± .002" COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

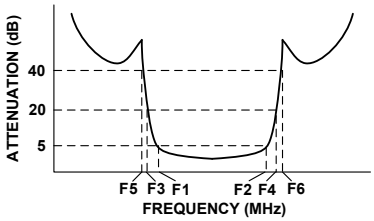
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

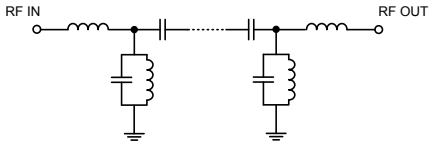
Bandpass Filter Electrical Specifications (T_{AMB}= 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 5dB)	STOPBANDS (MHz) Loss > 20dB		Loss > 40dB		MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1) Passband		Stopband
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 15MHz	Typ.	Max.	Typ.
425	410-440	385	470	360	510-2500	±11	1.3	1.85	20

Typical Frequency Response

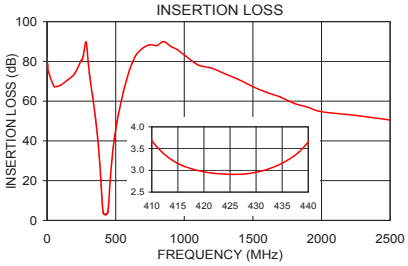


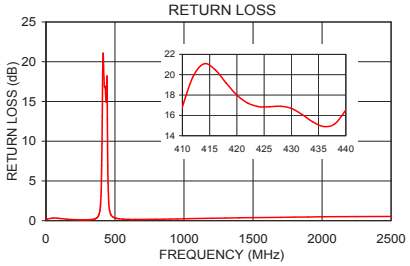
Functional Schematic

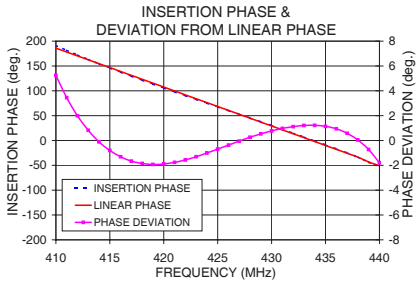


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Deviation from Linear Phase (deg.)
0.5	81.76	3.40	0.17	410	5.24
100.0	68.09	3.05	0.28	412	1.99
360.0	47.06	0.36	0.27	414	-0.11
385.0	27.82	0.65	0.82	416	-1.31
395.0	16.90	1.00	1.90	418	-1.85
402.0	8.63	1.16	4.96	420	-1.89
406.0	5.40	0.97	9.68	422	-1.57
410.0	3.68	0.11	16.84	424	-1.01
425.0	2.91	0.07	16.83	425	-0.69
440.0	3.65	0.13	16.55	427	-0.05
445.0	5.32	0.42	12.75	429	0.53
450.0	9.56	0.74	4.75	430	0.77
460.0	19.96	0.67	1.39	432	1.11
470.0	28.48	0.54	0.78	434	1.22
510.0	49.71	0.45	0.29	436	0.94
1000.0	83.27	5.77	0.24	438	0.04
2000.0	54.71	2.24	0.49	439	-0.73
2500.0	50.52	1.55	0.54	440	-1.79







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-Circuit's 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/MCLStore/terms.jsp

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