

Surface Mount Bandpass Filter

SXBP-140+

50Ω 130 to 150 MHz

Maximum Ratings

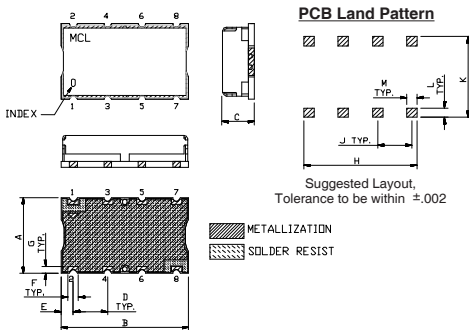
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

Pin Connections

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

Outline Drawing

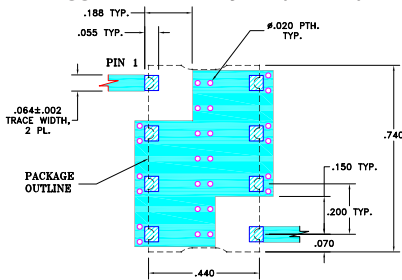


Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.44	.74	.27	.200	.07	.060	
11.18	18.80	6.86	5.08	1.78	1.52	
G	H	J	K	L	M	wt. grams
.040	.660	.200	.470	.055	.060	
1.02	16.76	5.08	11.94	1.40	1.52	3.0

Note: Please refer to case style drawing for details

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



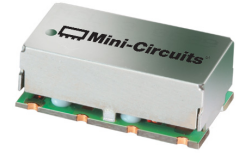
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- high rejection
- good VSWR, 1.1:1 typ @ passband
- aqueous washable

Applications

- receivers/transmitters
- wireless communication systems
- radio link



Generic photo used for illustration purposes only

CASE STYLE: HF1139

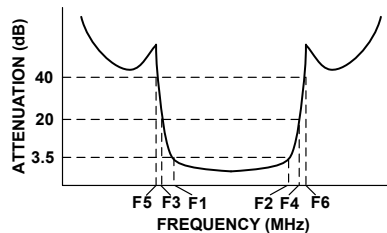
+RoHS Compliant

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

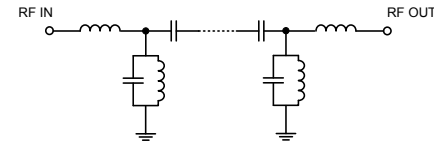
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
140	130 - 150	110	185	100	210 - 2000	1.1	1.5	20

Typical Frequency Response

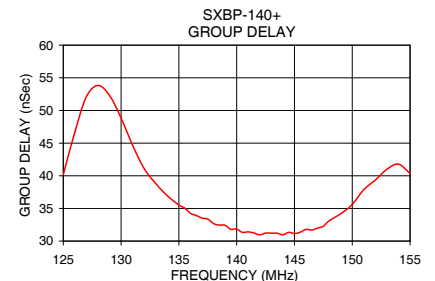
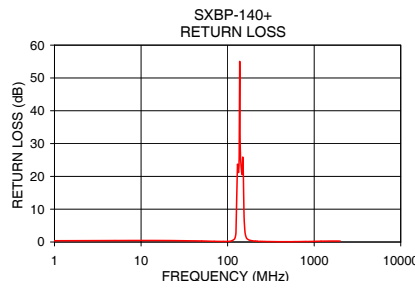
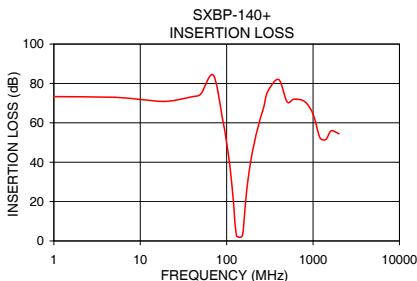


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
1.0	73.30	3.99	0.40	125.0	40.18
50.0	74.59	2.17	0.31	127.0	52.13
100.0	49.79	0.31	0.19	129.0	52.31
110.0	36.54	0.36	0.30	130.0	48.85
120.0	19.41	0.50	0.89	132.0	41.10
125.0	8.65	0.52	3.06	135.0	35.53
130.0	2.65	0.11	23.63	137.0	33.52
140.0	1.89	0.02	28.56	139.0	32.42
150.0	2.24	0.06	25.90	140.0	31.84
155.0	4.86	0.50	7.97	141.0	31.41
158.0	8.93	0.68	3.61	143.0	31.20
165.0	19.05	0.59	1.27	145.0	31.15
170.0	24.86	0.51	0.87	147.0	31.99
185.0	37.36	0.39	0.47	149.0	34.18
210.0	50.09	0.35	0.28	150.0	35.60
500.0	70.65	0.64	0.10	151.0	37.89
1000.0	64.42	0.32	0.20	153.0	41.00
2000.0	54.40	0.37	0.28	155.0	40.36



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.
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