

# Surface Mount Bandpass Filter

## SXBP-157+

50Ω 150 to 164 MHz

### Maximum Ratings

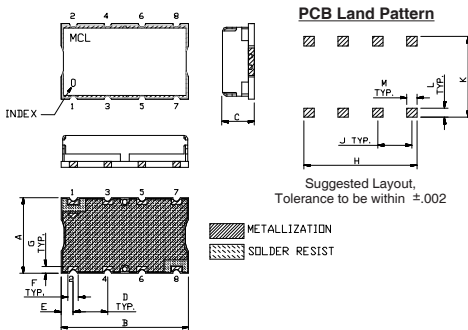
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

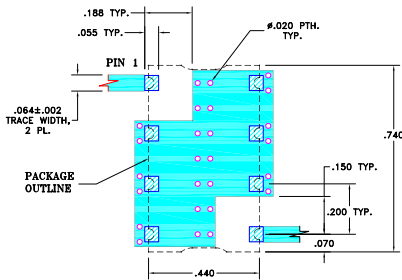


### Outline Dimensions (inch/mm)

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.					
.040	.660	.200	.470	.055	.060	grams					
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)



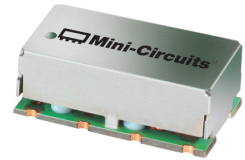
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE.  
FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES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

### Features

- excellent rejection
- good VSWR, 1.2:1 typ @ passband
- aqueous washable

### Applications

- receivers / transmitters
- professional mobile radio / public access mobile radio (PMR/ PAMR)
- CDMA base station



Generic photo used for illustration purposes only  
CASE STYLE: HF1139

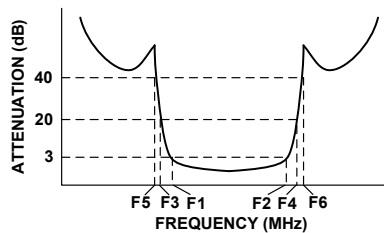
### +RoHS Compliant

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

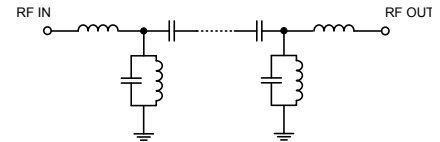
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F <sub>c</sub>	F <sub>1</sub> - F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	Typ.	Max.	Typ.
157	150 - 164	131	187	115	215 - 2000	1.2	1.7	20

### Typical Frequency Response

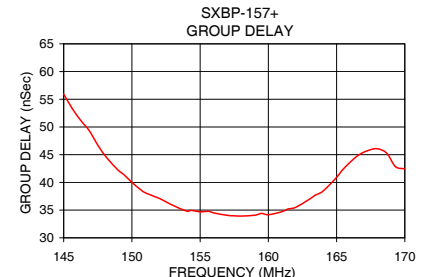
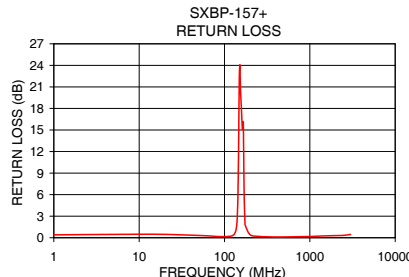
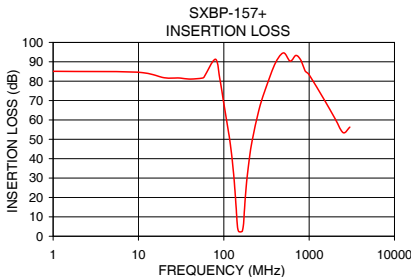


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
1.0	85.08	2.10	0.41	147.5	47.32
115.0	52.32	0.36	0.19	149.0	43.31
131.0	30.98	0.35	0.54	150.0	40.88
139.0	15.86	0.38	1.77	151.0	39.12
143.0	7.41	0.39	4.92	152.5	36.95
146.0	3.62	0.21	11.89	154.0	35.47
150.0	2.44	0.03	24.24	155.0	34.82
157.0	2.22	0.03	18.56	156.0	34.59
164.0	2.53	0.04	15.44	157.0	34.33
169.0	4.80	0.31	7.92	159.0	33.98
172.0	9.17	0.42	3.23	160.0	33.89
178.0	18.91	0.32	1.19	161.4	34.36
187.0	29.82	0.22	0.64	163.0	35.53
215.0	49.38	0.19	0.31	163.4	36.37
750.0	93.83	3.88	0.13	164.0	36.97
1000.0	83.28	1.86	0.18	165.4	40.43
1500.0	70.47	0.42	0.26	166.7	43.96
2000.0	60.88	0.91	0.30	168.0	46.31



### 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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