

# Surface Mount Bandpass Filter

## SXBP-169+

50Ω 164 to 174 MHz

### Maximum Ratings

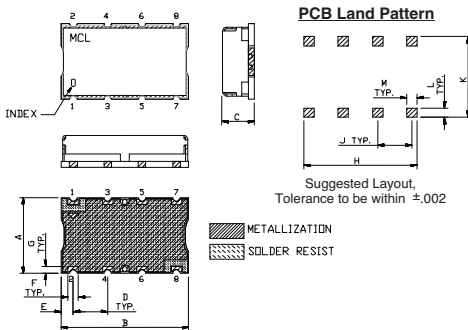
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

### Pin Connections

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

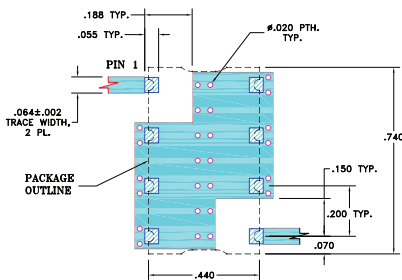
### Outline Drawing



### Outline Dimensions (inch/mm)

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

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



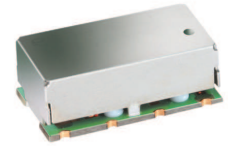
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER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

### Features

- high rejection
- good VSWR, 1.3:1 typ @ passband
- aqueous washable

### Applications

- radio link
- receivers / transmitters
- professional mobile radio / public access mobile radio (PMR/ PAMR)



CASE STYLE: HF1139  
PRICE: \$15.95 ea. QTY (1-9)

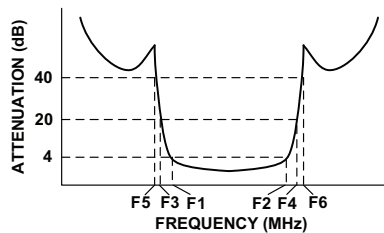
### +RoHS Compliant

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

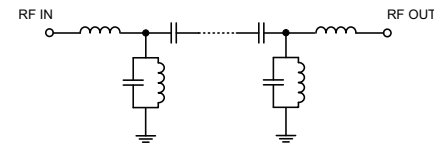
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
Fc	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
169	164 - 174	137	205	122	240 - 2500	1.3	1.9	18

### Typical Frequency Response

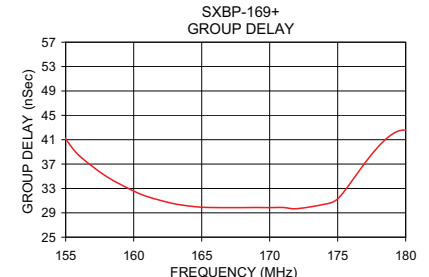
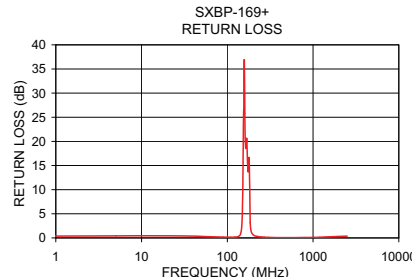
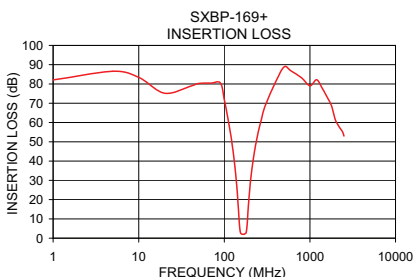


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
1.0	82.10	2.30	0.38	155.0	41.11
110.0	62.23	0.84	0.15	156.0	38.37
122.0	50.32	0.82	0.15	158.0	34.97
126.0	45.85	0.92	0.17	160.0	32.58
137.0	31.35	1.24	0.40	161.0	31.67
140.0	26.73	1.37	0.53	162.0	31.02
150.0	7.41	1.62	5.90	163.0	30.49
152.0	4.56	1.09	12.24	164.0	30.13
164.0	2.04	0.03	18.54	165.0	29.92
169.0	2.00	0.02	20.31	166.0	29.86
174.0	2.28	0.07	14.37	167.0	29.85
185.0	7.34	1.60	3.16	168.0	29.85
190.0	15.14	1.79	1.33	169.0	29.87
205.0	31.92	1.00	0.52	170.0	29.85
240.0	51.59	0.57	0.22	172.0	29.68
1000.0	79.07	3.14	0.10	174.0	30.40
2000.0	60.93	0.84	0.32	175.0	31.30
2500.0	52.98	0.33	0.37	180.0	42.56



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