

# Bandpass Filter

## SXBP-150+

**50Ω 140 to 160 MHz**

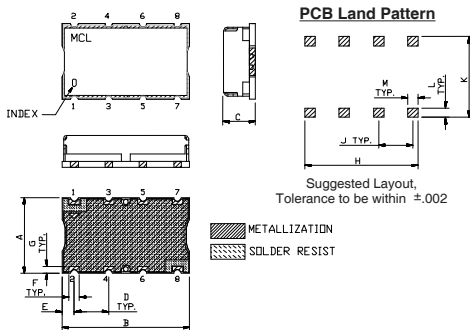
### Maximum Ratings

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

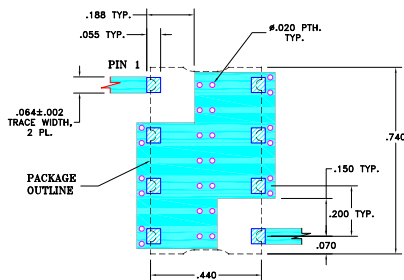


### Outline Dimensions (inch/mm)

	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
	.040	.660	.200	.470	.055	.060
	1.02	16.76	5.08	11.94	1.40	1.52
						grams
						3.0

Note: Please refer to case style drawing for details

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



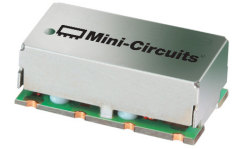
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025±.002". COPPER: 1/2 OZ. EACH SIDE.  
FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER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

### Features

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

### Applications

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



Generic photo used for illustration purposes only

CASE STYLE: HF1139

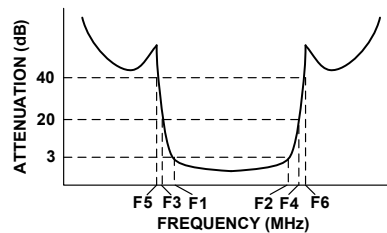
### +RoHS Compliant

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

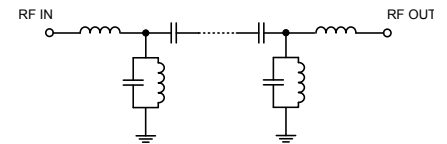
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

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.
150	140 - 160	120	190	100	250 - 2400	1.3	1.8	20

### Typical Frequency Response

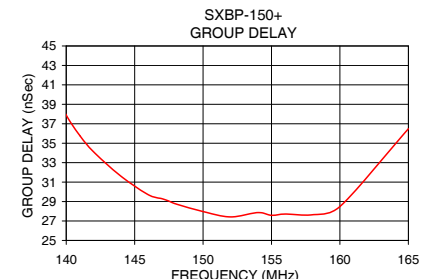
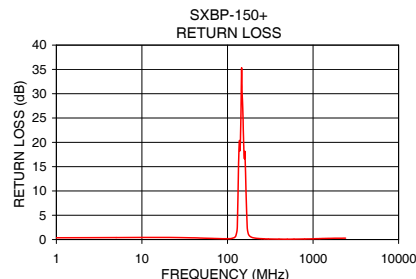
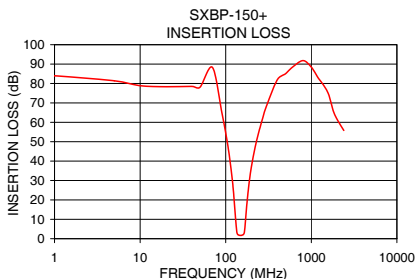


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
1.0	83.96	1.58	0.37	135.0	47.94
50.0	78.09	1.11	0.31	138.0	43.87
100.0	54.50	0.68	0.17	139.0	40.79
120.0	29.52	0.89	0.40	140.0	37.89
130.0	11.22	1.23	2.35	141.0	35.78
135.0	3.38	0.59	16.16	142.0	34.12
140.0	1.99	0.06	18.26	144.0	31.61
150.0	1.69	0.01	28.35	146.0	29.70
160.0	2.05	0.04	17.98	147.5	29.05
165.0	3.19	0.36	9.45	148.0	28.76
170.0	8.77	0.99	2.53	150.0	27.97
175.0	15.71	0.87	1.21	152.0	27.42
184.0	25.51	0.60	0.64	154.0	27.86
190.0	30.53	0.49	0.49	155.0	27.58
250.0	56.82	0.34	0.18	156.0	27.72
1000.0	88.44	3.18	0.15	158.0	27.64
2000.0	61.58	0.28	0.28	160.0	28.49
2400.0	55.81	0.21	0.29	165.0	36.48



### Notes

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