

# Surface Mount Bandpass Filter

## SXBP-707+

50Ω 650 to 770 MHz

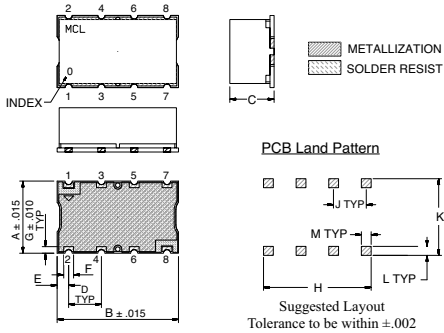
### Maximum Ratings

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

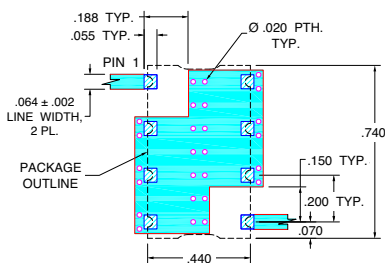
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt. grams
.440	.740	.27	.200	.07	.060	11.18	18.80	6.86	5.08	1.78	1.52	
						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)



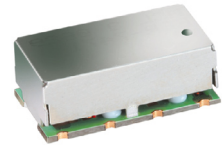
- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER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

### Features

- High Rejection
- Flat Group Delay @ Passband
- Shielded case
- Aqueous washable

### Applications

- Mobile TV
- Receivers / Transmitters
- Harmonic rejection



CASE STYLE: HF1139  
PRICE: \$17.95 ea. QTY (1-9)

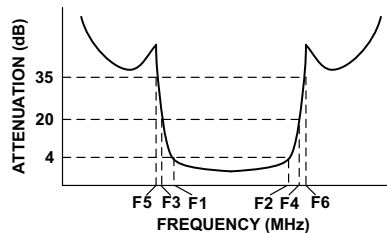
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

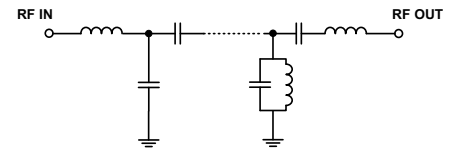
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB	Loss 35dB Typ.	Passband Typ.	Passband Max.	Stopband Typ.		
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>			
707	650 - 770	450	830	400	840 - 5000	1.7	2.3	20

### Typical Frequency Response

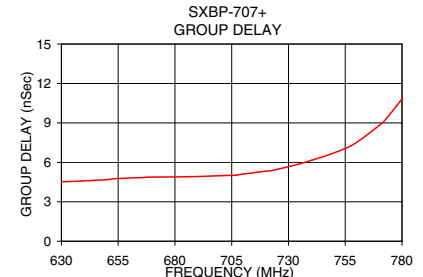
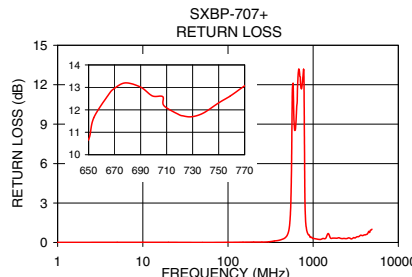
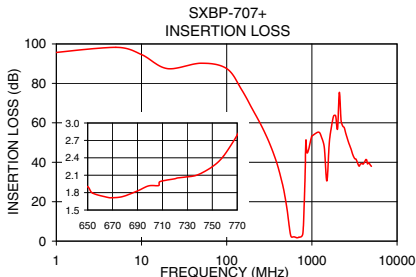


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
5.0	98.28	6.06	0.01	630.0	4.53
400.0	37.67	0.20	0.11	642.0	4.61
450.0	29.25	0.23	0.17	650.0	4.69
510.0	16.37	0.33	0.57	654.0	4.76
534.0	9.91	0.38	1.05	666.0	4.85
546.0	6.56	0.37	1.65	678.0	4.89
558.0	3.78	0.26	2.95	690.0	4.92
650.0	1.90	0.05	10.37	699.0	4.98
678.0	1.73	0.04	12.92	707.0	5.03
707.0	1.92	0.04	12.62	712.0	5.15
750.0	2.25	0.05	11.85	720.0	5.33
770.0	2.79	0.07	12.62	729.0	5.63
791.0	5.83	0.50	10.55	738.0	6.04
803.0	12.11	1.15	4.50	750.0	6.72
830.0	30.85	1.90	1.20	759.0	7.41
840.0	43.64	3.04	0.95	770.0	8.81
1500.0	30.51	0.72	0.31	773.0	9.31
5000.0	37.93	0.75	1.01	779.0	10.61



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