

## HT-SXBP-707+



50Ω 650 to 770 MHz

### Features

- high rejection
- flat group delay @ passband
- shielded case
- aqueous washable

### Applications

- mobile TV
- receivers / transmitters
- harmonic rejection

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 40dB)		Passband		Stopband
F <sub>c</sub>	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
707	650-770	450	830	400	840-5000	1.7	2.3	20

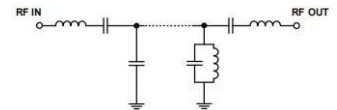
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	x	σ			
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

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.

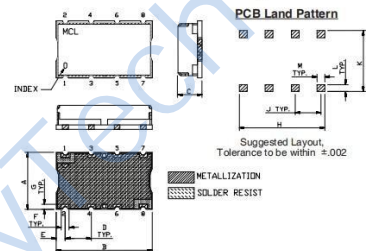
### Functional Schematic



### Pad Connections

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

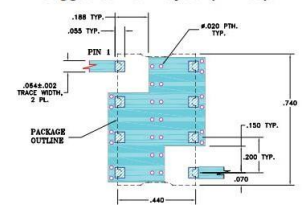
### Outline Drawing



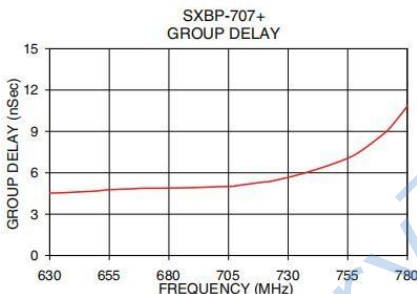
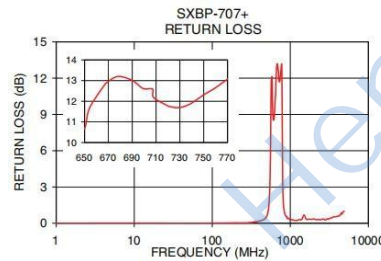
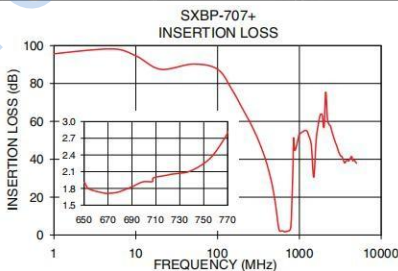
### Outline Dimensions: Unit (mm)

A	11.18	D	5.08	G	1.02
B	18.80	E	1.78	H	16.76
C	6.86	F	1.52	J	5.08
L	1.40	M	1.52	K	11.94
wt					3.0

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



- NOTE:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .005"±.002" COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  2. BOTTOM SIDE OF THE PCB IS CONTIGUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMDSC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



### Typical Frequency Response

