

## HT-SXBP-507+



50Ω 460 to 560 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.
507	460-560	300	615	220	635-2250	1.6	2.0	20

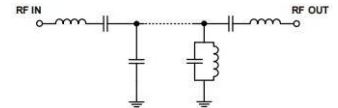
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	x	σ			
1.0	93.82	5.84	0.00	460.0	5.78
220.0	48.63	0.24	0.07	465.0	5.80
300.0	31.19	0.27	0.20	470.0	5.80
345.0	18.59	0.38	0.64	475.0	5.78
372.0	9.38	0.47	2.44	480.0	5.79
390.0	4.39	0.30	9.47	485.0	5.83
400.0	2.24	0.13	15.57	495.0	5.90
460.0	1.41	0.06	12.80	500.0	5.91
485.0	1.40	0.03	14.67	505.0	6.02
507.0	1.57	0.05	13.05	510.0	6.05
545.0	1.75	0.03	21.96	515.0	6.23
560.0	2.24	0.04	13.37	520.0	6.37
580.0	4.33	0.77	22.73	530.0	6.84
590.0	10.81	1.85	5.86	535.0	7.21
600.0	19.67	1.84	2.25	540.0	7.66
615.0	32.88	1.92	1.17	550.0	8.52
635.0	53.72	1.69	0.72	555.0	8.93
2250.0	56.17	0.13	0.32	560.0	9.34

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.

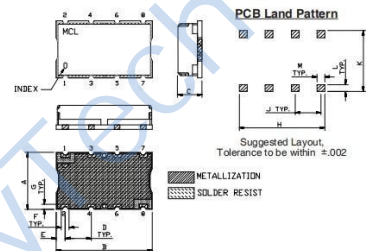
### Functional Schematic



### Pad Connections

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

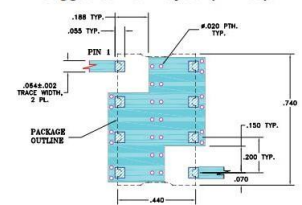
### Outline Drawing



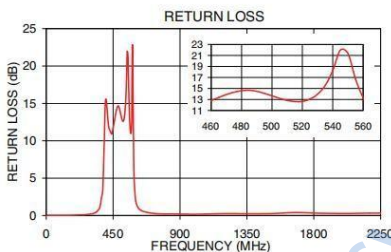
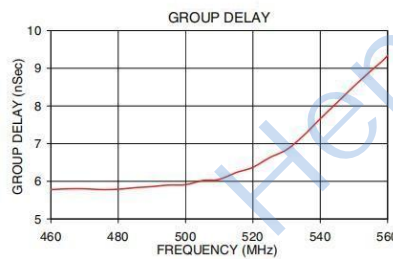
### Outline Dimensions: Unit (mm)

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



### Typical Frequency Response

