

# Bandpass Filter

## HT-RBP-220W+



50Ω 190 to 250 MHz

### Features

- VSWR, 1.4:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

### Applications

- harmonic rejection
- transmitters / receivers
- military radio

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 35dB)		Passband		Stopband
F <sub>c</sub>	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
220	190-250	80	310	50	330-2000	1.4	1.8	18

### Maximum Ratings

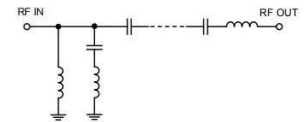
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

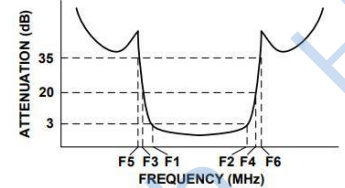
RF Power Input\* 0.5 W at 25°C

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

### Functional Schematic



### Typical Frequency Response



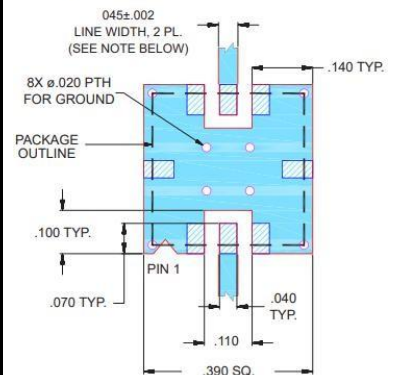
### Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	90.42	1506.73
50	40.56	2348.96
80	31.28	543.36
156.5	15.58	14.09
163	7.51	4.65
169.45	3.07	2.50
190	1.29	1.53
210	1.02	1.29
220	1.08	1.37
230	1.19	1.48
250	1.55	1.54
265	2.83	2.24
275	6.33	5.31
290	14.87	12.19
310	27.00	31.00
330	41.62	43.84
1000	46.35	188.62
2000	42.15	88.61

### Pad Connections

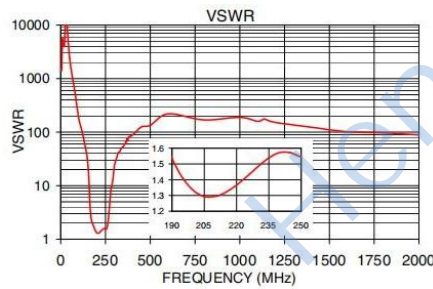
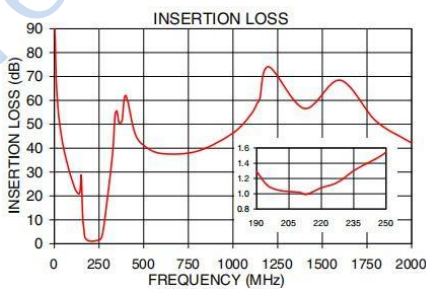
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

### Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)

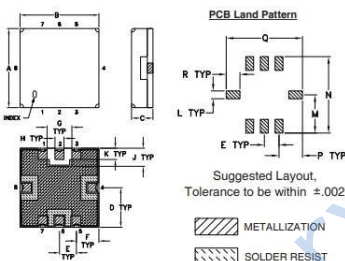


NOTES:  
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025 ± .002; COPPER: 1/2 OZ. EACH SIDE.  
FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



### Outline Drawing



### Outline Dimensions: Unit (mm)

A	8.89	B	8.89	C	2.54
D	4.45	E	1.91	F	2.54
G	2.79	H	1.02	J	2.03
K	1.27	L	1.02	M	4.95
N	9.91	P	3.05	Q	9.91
R	1.78	wt	0.25		