

Bandpass Filter

HT-RBP-204+



50Ω 175 to 237 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_{AMB}= 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 35dB)		Passband		Stopband
F _c	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
204	175-237	135	300	115	350-2000	1.4	2.1	18

Maximum Ratings

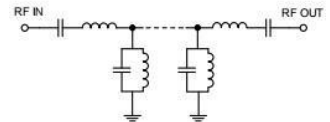
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

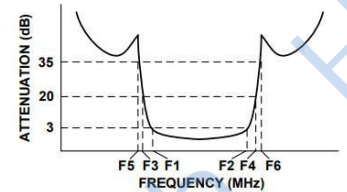
RF Power Input* 0.5 W at 25°C

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

Functional Schematic



Typical Frequency Response



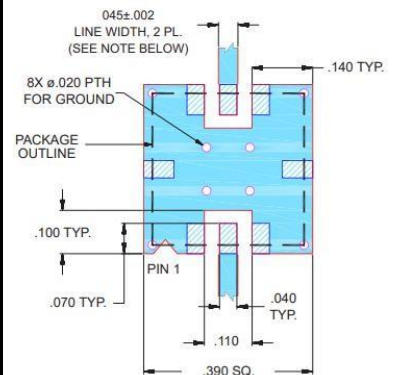
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.5	90.94	1737.18
50	88.29	1737.18
115	46.96	102.19
135	29.78	36.20
150	14.59	10.31
157	7.46	3.84
162	4.21	1.85
175	2.32	1.18
204	2.11	1.51
237	2.40	1.12
255	5.86	2.95
264	11.45	9.31
280	21.72	18.70
300	31.40	33.42
350	46.24	69.49
700	72.03	144.77
1500	79.02	66.82
2000	73.23	54.29

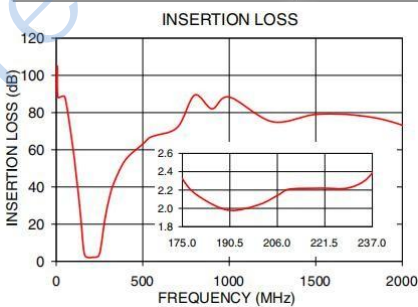
Pad Connections

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

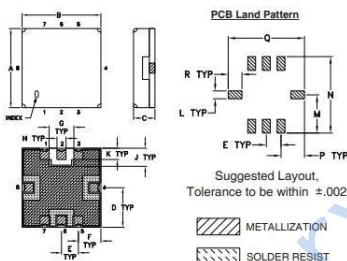
Demo Board MCL P/N: TB-332
Suggested PCB Layout (PL-176)



- 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		