HenryTech

Bandpass Filter

HT-RBP-253+

50Ω 186 to 340 MHz

Features
- good VSWR, 1.7:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications
- harmonic rejection
- transmitters / receivers
- navigation

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.

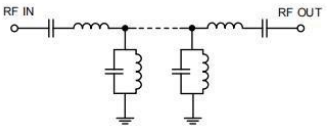
Bandpass Filter Electrical Specifications (T_{AMB}= 25℃)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz) (Loss>20dB)		(Loss>35dB)		VSWR Passband		VSWR Stopband
Fc	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
253	186-340	140	440	120	500-3000	1.7	2.1	18

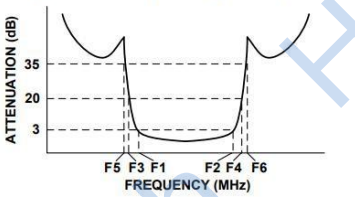
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.3	97.50	1737.18
50	81.95	868.59
120	41.47	133.63
140	28.14	54.29
163	10.51	9.53
170	5.40	3.68
186	1.82	1.47
253	1.17	1.34
263	1.28	1.52
300	1.35	1.51
340	1.82	1.45
345	2.16	1.69
362	5.38	4.23
380	11.59	11.61
440	29.39	43.44
500	40.20	72.39
2000	78.34	59.91
3000	47.45	45.72

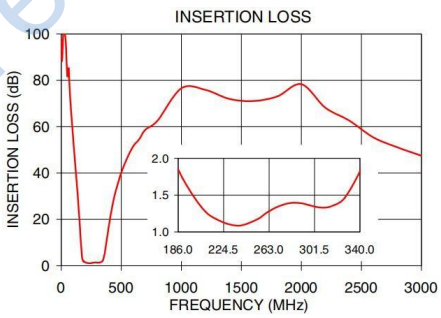
Functional Schematic

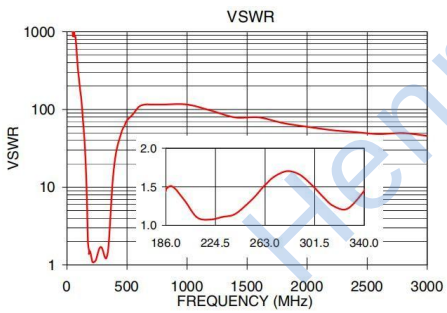


Typical Frequency Response

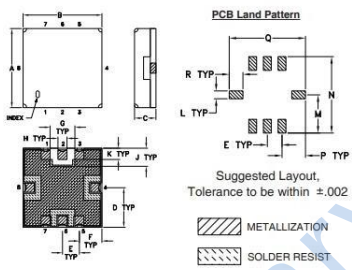


Pad Connections	
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8



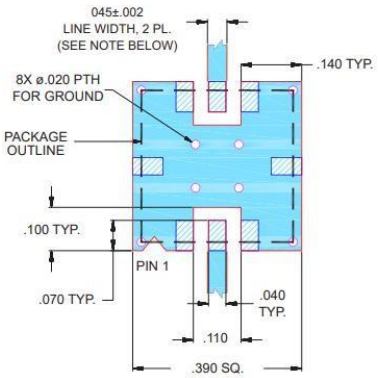


Outline Drawing



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		

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

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