



**THE DATASHEET OF
RBP-253+**



Bandpass Filter

RBP-253+

50Ω 186 to 340 MHz



Generic photo used for illustration purposes only
CASE STYLE: GP731

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost!		
Reel Size	Devices/Reel	
7"	10, 20, 50, 100, 200	
13"	500, 1000	

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

Pin Connections

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

Features

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

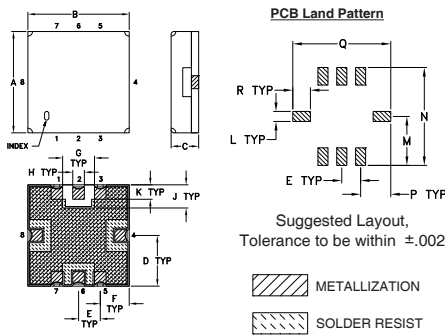
Applications

- harmonic rejection
- transmitters / receivers
- navigation

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 35dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
253	186 - 340	140	440	120	500 - 3000	1.7	2.1	18

Outline Drawing

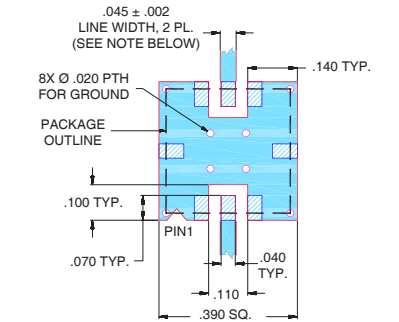


Outline Dimensions (inch/mm)

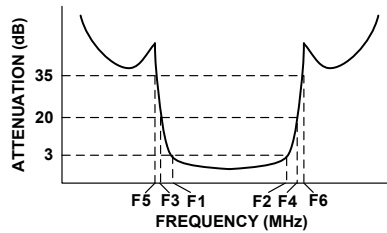
A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.110	.040	.080
8.89	8.89	2.54	4.45	1.91	2.54	2.79	1.02	2.03
K	L	M	N	P	Q	R	wt	
.050	.040	.195	.390	.120	.390	.070	grams	
1.27	1.02	4.95	9.91	3.05	9.91	1.78	0.25	

Note: Please refer to case style drawing for details

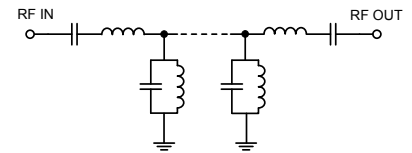
Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



Typical Frequency Response

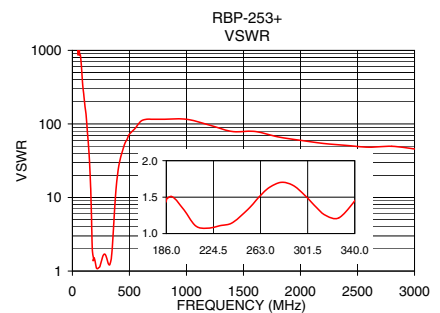
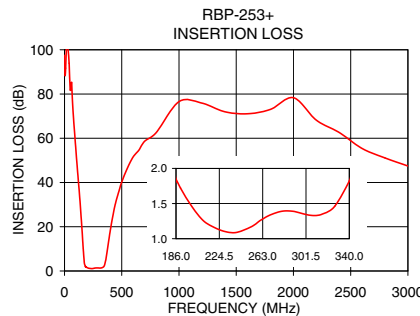


Functional Schematic



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



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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