

# Bandpass Filter

50Ω 190 to 250 MHz

## RBP-220W+



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



### Maximum Ratings

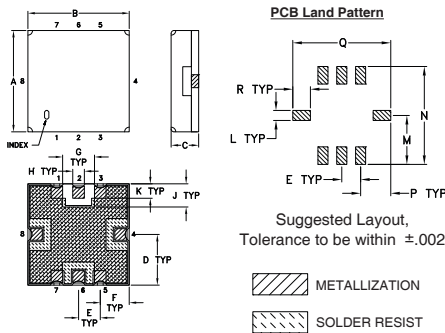
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

### Outline Drawing

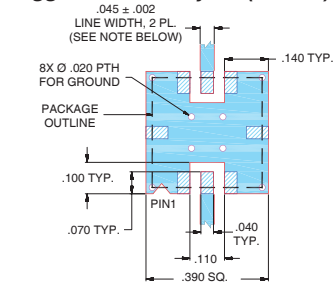


### Outline Dimensions (inch/mm)

	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	1.93	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)



NOTES:

- 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.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
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### Features

- linear phase, up to ±3deg typ. @ Fc ±30MHz
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

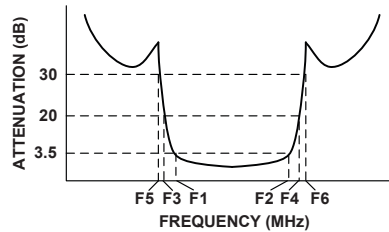
### Applications

- harmonic rejection
- transmitters / receivers
- WCDMA
- GSM

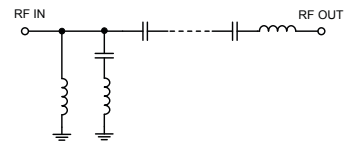
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.) Fc ± 30MHz	VSWR (:1)		
		Loss > 20dB		Loss > 30dB			Passband		Stopband
Fc	F1 - F2	F3	F4	F5	F6		Typ.	Max.	Typ.
220	190 - 250	80	310	50	330-2000	±6	1.4	1.8	18

### Typical Frequency Response

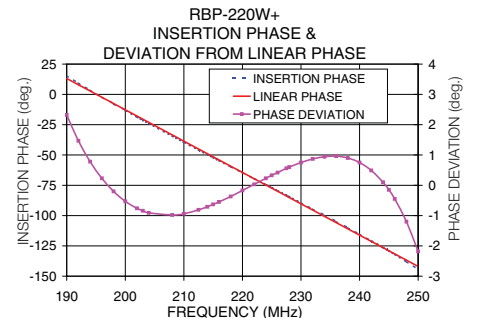
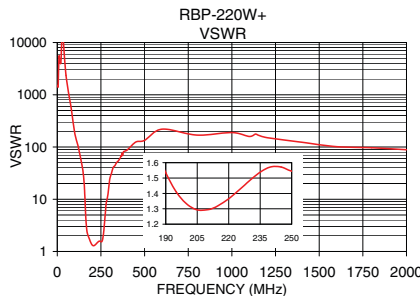
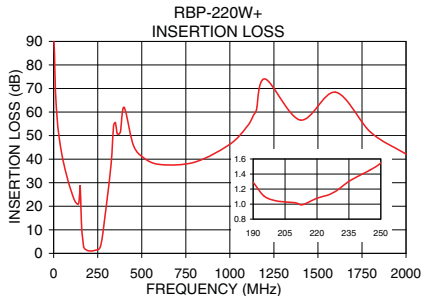


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg)
1.0	90.42	1506.73	190.0	2.32
50.0	40.56	2348.96	194.0	0.78
80.0	31.28	543.36	198.0	-0.20
156.5	15.58	14.09	202.0	-0.76
163.0	7.51	4.65	204.0	-0.91
169.5	3.07	2.50	210.0	-0.94
190.0	1.29	1.53	214.0	-0.71
210.0	1.02	1.29	218.0	-0.37
220.0	1.08	1.37	220.0	-0.17
230.0	1.19	1.48	222.0	0.03
250.0	1.55	1.54	224.0	0.23
265.0	2.83	2.24	228.0	0.60
275.0	6.33	5.31	230.0	0.75
290.0	14.87	12.19	234.0	0.94
310.0	27.00	31.00	238.0	0.90
330.0	41.62	43.84	242.0	0.49
1000.0	46.35	188.62	246.0	-0.45
2000.0	42.15	88.61	250.0	-2.18



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-Circuit's applicable established test performance criteria and measurement instructions.
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