

Bandpass Filter

50Ω 190 to 250 MHz

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.

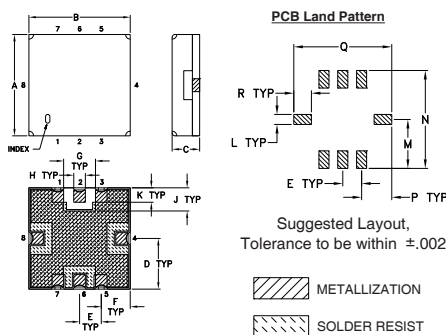
Pin Connections

RF IN 2

RF OUT 6

GROUND 1,3,4,5,7,8

Outline Drawing

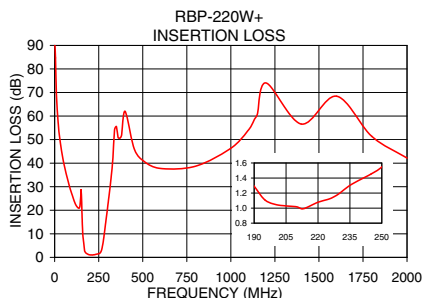
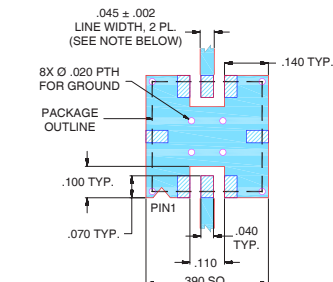


Outline Dimensions (inch/mm)

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	

Demo Board MCL P/N: TB-332

Suggested PCB Layout (PL-176)



Notes

A. 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.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

 C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Features

- linear phase, up to ±3deg typ. @ $F_c \pm 30\text{MHz}$
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers
- WCDMA
- GSM

RBP-220W+


CASE STYLE: GP731

+RoHS Compliant

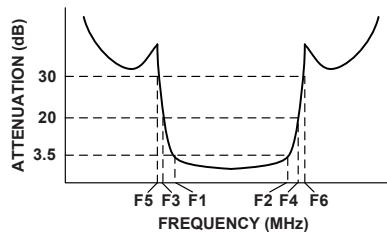
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

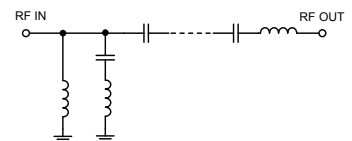
Bandpass Filter Electrical Specifications ($T_{AMB} = 25^\circ\text{C}$)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.) $F_c \pm 30\text{MHz}$	VSWR (:1)	
		Loss > 20dB	Loss > 30dB				Passband	Stopband
F_c	$F_1 - F_2$	F_3	F_4	F_5	F_6		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

