

Bandpass Filter

50Ω 212 to 228 MHz

RBP-220+



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

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

Maximum Ratings

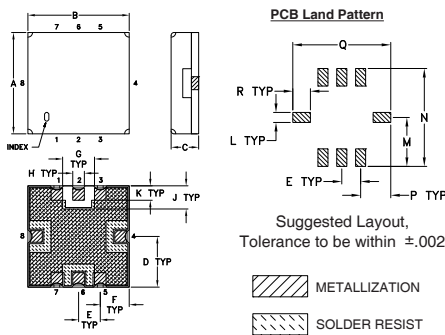
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

Outline Drawing

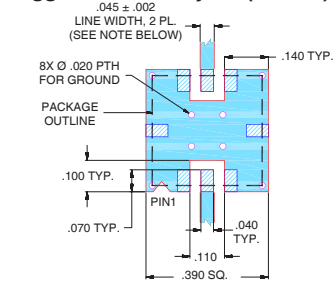


Outline Dimensions (inch/mm)

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		

Note: Please refer to case style drawing for details

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



- 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.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- linear phase, up to ±8deg typ. @ Fc ±30MHz
- good VSWR, 1.2:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

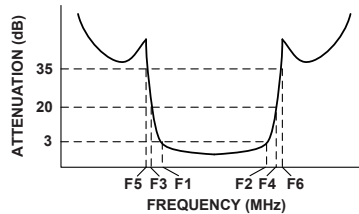
Applications

- harmonic rejection
- transmitters / receivers

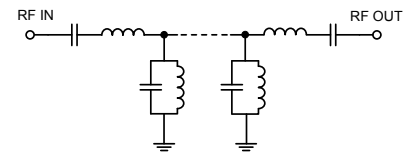
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1)	
		Loss > 20dB	Loss > 35dB				Passband	Stopband
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 30MHz	Max.	Typ.
220	212 - 228	150	290	100	320-1000	±15	1.7	18

Typical Frequency Response

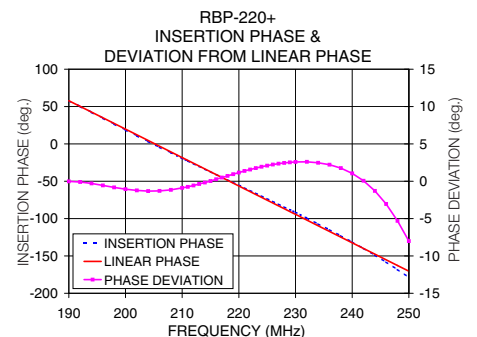
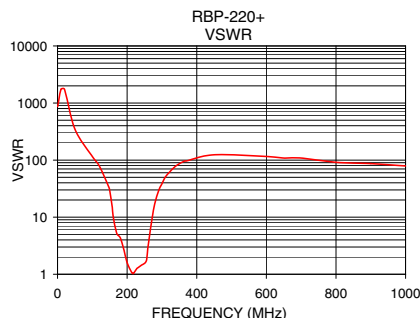
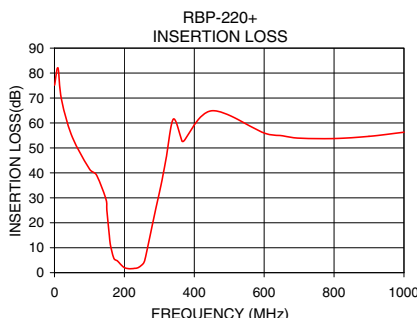


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg)
0.3	75.19	868.59	190.0	-0.02
100.0	41.58	115.81	194.0	-0.29
150.0	24.84	28.96	200.0	-1.06
160.0	11.13	10.25	202.0	-1.23
170.0	5.75	5.25	204.0	-1.32
190.0	3.23	2.78	206.0	-1.29
212.0	1.59	1.11	208.0	-1.15
217.0	1.58	1.03	210.0	-0.89
220.0	1.59	1.07	214.0	-0.17
228.0	1.71	1.27	218.0	0.71
250.0	2.80	1.49	222.0	1.57
260.0	5.96	3.02	226.0	2.23
276.0	16.47	13.81	228.0	2.45
290.0	25.69	28.49	230.0	2.58
320.0	46.31	59.91	234.0	2.47
600.0	55.98	115.81	240.0	1.05
700.0	53.93	108.58	246.0	-3.05
1000.0	56.30	78.97	250.0	-8.01



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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