

# Bandpass Filter

## RBP-440+

50Ω 410 to 470 MHz

### Maximum Ratings

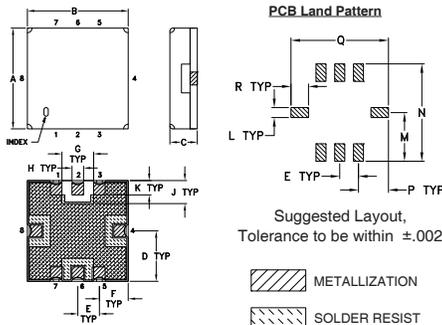
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W at 25°C

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

### Pin Connections

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

### Outline Drawing

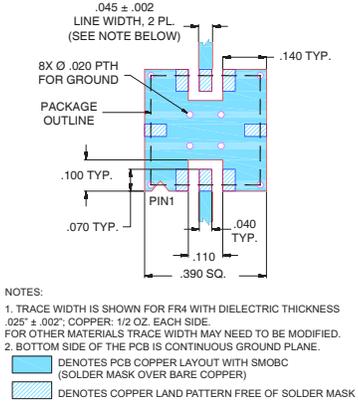


### Outline Dimensions (inch/mm)

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)



### Features

- linear phase, up to ±3deg typ. @ Fc ±30MHz
- good VSWR, 1.3:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

### Applications

- harmonic rejection
- transmitters / receivers
- personal & home communication



Generic photo used for illustration purposes only  
CASE STYLE: GP731

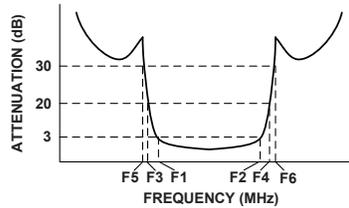
**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



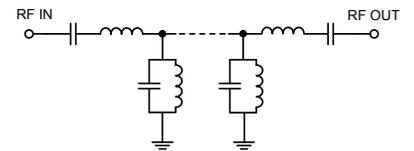
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1)	
		Loss > 20dB	Loss > 30dB	F3	F4		Passband	Stopband
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 30MHz	Typ.	Max.
440	410 - 470	320	650	200	850 - 1500	±6	1.3	2.0

### Typical Frequency Response

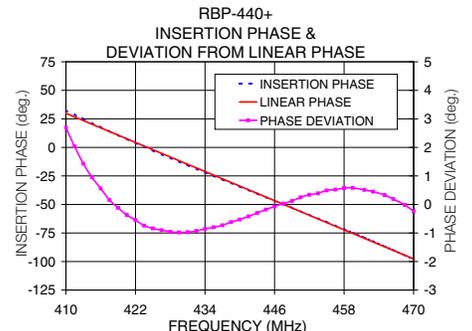
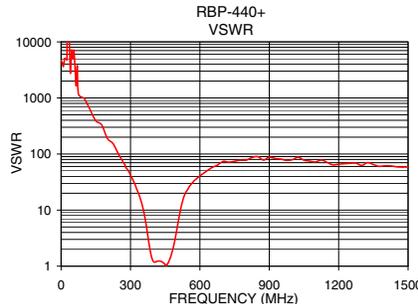
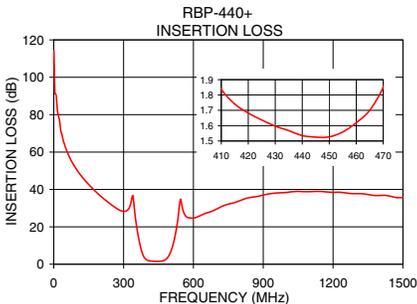


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg)
0.5	101.96	4669.18	410.0	2.69
50.0	62.44	4976.10	413.0	1.43
150.0	42.32	390.29	416.0	0.56
320.0	30.36	28.41	420.5	-0.37
355.0	18.05	10.40	425.0	-0.84
370.0	8.73	4.79	428.0	-0.96
380.0	4.74	2.55	434.0	-0.86
395.0	2.23	1.30	437.0	-0.73
410.0	1.67	1.20	438.5	-0.62
440.0	1.43	1.17	440.0	-0.53
470.0	1.79	1.34	441.5	-0.42
490.0	3.67	2.66	443.0	-0.30
500.0	5.97	4.37	446.0	-0.07
510.0	9.60	7.47	452.0	0.34
530.0	21.82	16.89	455.0	0.49
650.0	26.91	56.67	463.0	0.45
850.0	35.76	89.73	466.5	0.19
1500.0	36.15	58.75	470.0	-0.24



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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