

# Bandpass Filter

## RBP-440+

50Ω 410 to 470 MHz

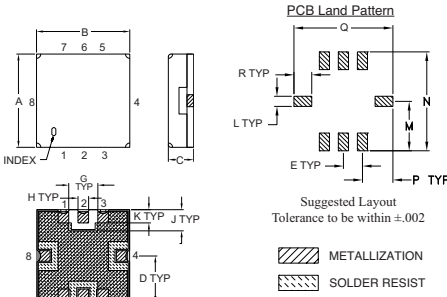
### Maximum Ratings

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

### Pin Connections

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

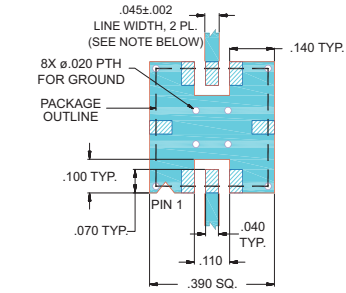
### Outline Drawing



### 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			

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



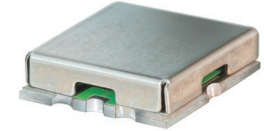
NOTES: 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED. 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

### Features

- Linear Phase, up to ± 3 deg. Typ @ Fc ± 30 MHz
- Good VSWR, 1.3:1 Typ @ Passband
- Small Size (0.35" X 0.35")
- Shielded case
- Aqueous washable

### Applications

- Personal & Home communication
- Harmonic Rejection
- Transmitters/Receivers



CASE STYLE: GP731  
 PRICE: \$15.95 ea. QTY (1-9)

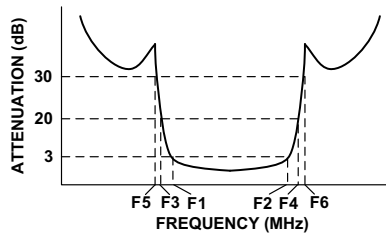
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

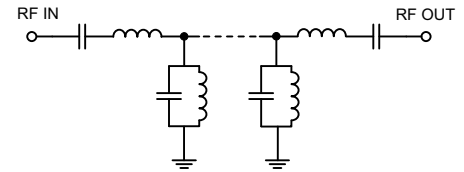
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

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

### Typical Frequency Response

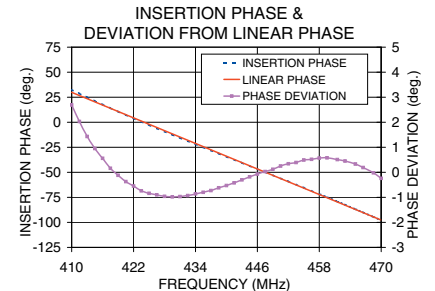
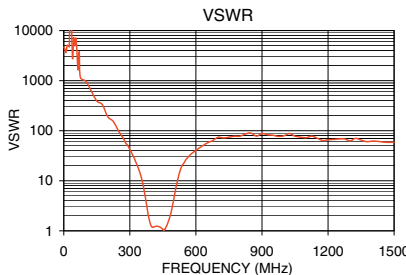


### Functional Schematic



### 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	1.44	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



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

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IF/RF MICROWAVE COMPONENTS

REV. OR  
 M121478  
 EDR-9420AUF1  
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 URJ/RAV  
 090219  
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