

# Bandpass Filter

## RBP-650+

50Ω 624 to 680 MHz

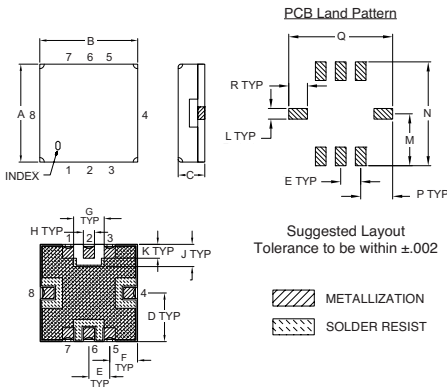
### Maximum Ratings

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

### Pin Connections

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

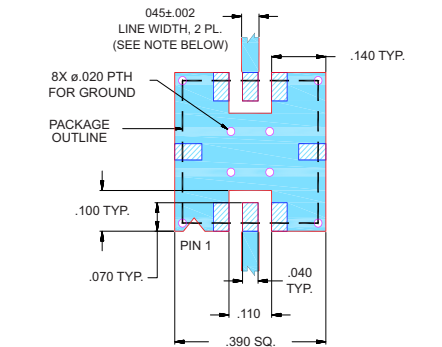
### Outline Drawing



### 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.	GRAM
.050	.040	.195	.390	.120	.390	.070		
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:  
 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.  
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

- Good VSWR, 1.5:1 Typ @ Passband
- Small Size (0.35" X 0.35")
- Shielded case
- Aqueous washable

### Applications

- Navigation
- Harmonic Rejection
- Transmitters/Receivers



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

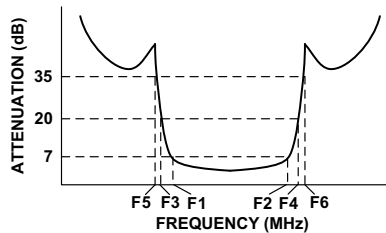
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

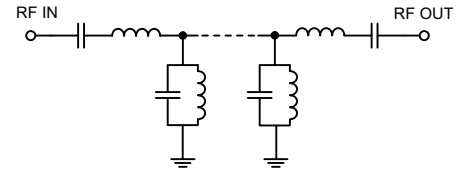
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 7dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 35dB		Passband		Stopband
Fc	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
652	624 - 680	560	760	520	810 - 1000	1.5	2.8	18

### Typical Frequency Response

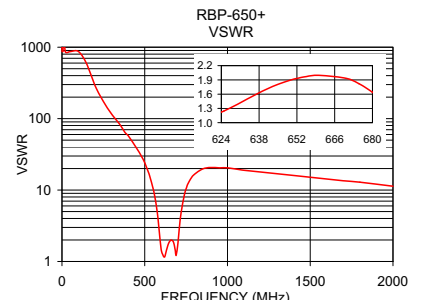
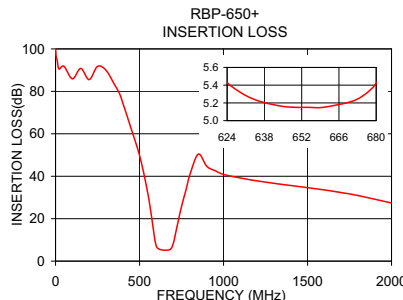


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.3	101.35	868.59
200.0	85.53	289.53
520.0	43.25	18.30
560.0	26.93	8.31
580.0	16.09	4.01
590.0	10.54	2.32
624.0	5.43	1.22
630.0	5.30	1.39
652.0	5.15	1.93
670.0	5.21	1.94
680.0	5.42	1.64
700.0	8.11	1.75
720.0	15.21	4.87
754.0	27.00	11.10
760.0	28.84	12.09
810.0	44.24	17.75
1000.0	40.85	20.45
2000.0	27.38	11.31



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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