

# Bandpass Filter

## BPF-A76+

**50Ω 74 to 77 MHz**

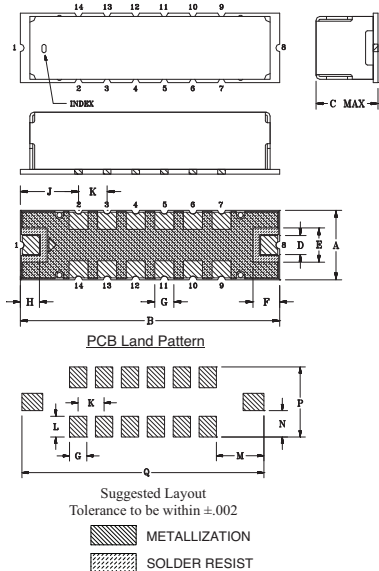
### Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| 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  | 1                            |
| RF OUT | 8                            |
| GROUND | 2,3,4,5,6,7,9,10,11,12,13,14 |

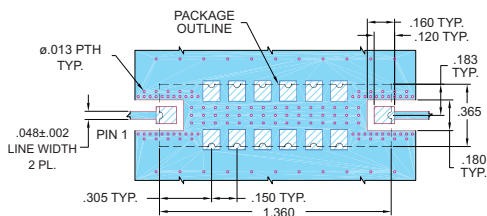
### Outline Drawing



### Outline Dimensions (inch/mm)

| A    | B     | C    | D    | E    | F     | G     | H     |
|------|-------|------|------|------|-------|-------|-------|
| .365 | 1.360 | .35  | .100 | .180 | .140  | .100  | .100  |
| 9.27 | 34.54 | 8.89 | 2.54 | 4.57 | 3.58  | 2.54  | 2.54  |
| J    | K     | L    | M    | N    | P     | Q     | wt.   |
| .305 | .150  | .120 | .275 | .152 | .405  | 1.400 | grams |
| 7.75 | 3.81  | 3.05 | 6.99 | 3.87 | 10.29 | 35.65 | 4.0   |

### Demo Board MCL P/N: TB-363+ Suggested PCB Layout (PL-227)



#### NOTES:

- 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

- Good VSWR, 1.3:1 typ @ passband
- High rejection
- Shielded case
- Aqueous washable

### Applications

- Military communications
- Harmonic rejection
- Transmitters/receivers



CASE STYLE: HQ1157  
PRICE: \$29.95 ea. QTY (1-9)

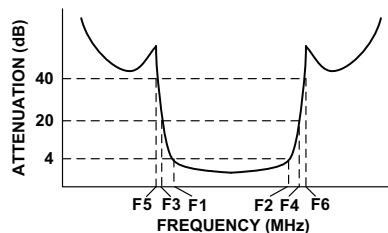
### +RoHS Compliant

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

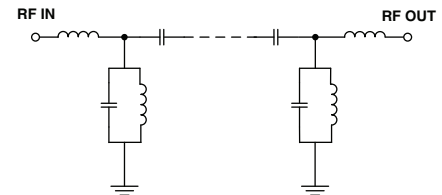
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 4dB)     | STOPBANDS (MHz) |                |                |                | VSWR (:1) |      |          |
|--------------------|---------------------------------|-----------------|----------------|----------------|----------------|-----------|------|----------|
|                    |                                 | Loss > 20dB     |                | Loss > 40dB    |                | Passband  |      | Stopband |
| F <sub>c</sub>     | F <sub>1</sub> - F <sub>2</sub> | F <sub>3</sub>  | F <sub>4</sub> | F <sub>5</sub> | F <sub>6</sub> | Typ.      | Max. | Typ.     |
| 75.5               | 74 - 77                         | 65              | 86             | 60             | 94 - 1000      | 1.3       | 1.8  | 20       |

### Typical Frequency Response

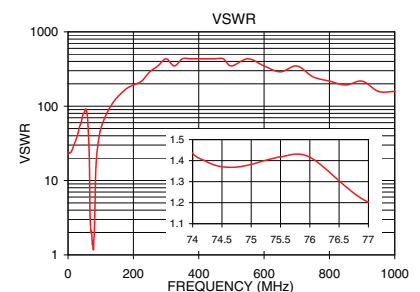
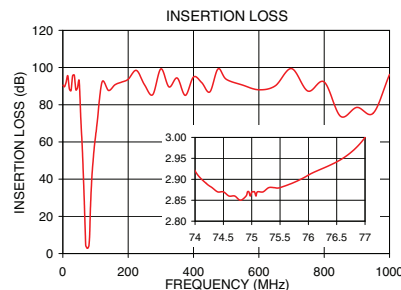


### Functional Schematic



### Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 0.5             | 90.50               | 24.14     |
| 60.0            | 55.22               | 66.82     |
| 65.0            | 31.16               | 20.22     |
| 68.0            | 15.22               | 2.93      |
| 69.0            | 9.91                | 2.34      |
| 70.0            | 4.60                | 1.97      |
| 74.0            | 2.92                | 1.43      |
| 75.0            | 2.87                | 1.38      |
| 75.5            | 2.88                | 1.42      |
| 76.0            | 2.91                | 1.42      |
| 77.0            | 3.00                | 1.20      |
| 80.0            | 4.20                | 1.78      |
| 82.0            | 9.85                | 3.69      |
| 84.0            | 21.80               | 10.75     |
| 86.0            | 30.91               | 16.89     |
| 94.0            | 52.87               | 36.20     |
| 500.0           | 93.71               | 347.44    |
| 1000.0          | 96.30               | 157.93    |



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