

# Bandpass Filter

## BPF-A490+

50Ω 400 to 600 MHz

### Maximum Ratings

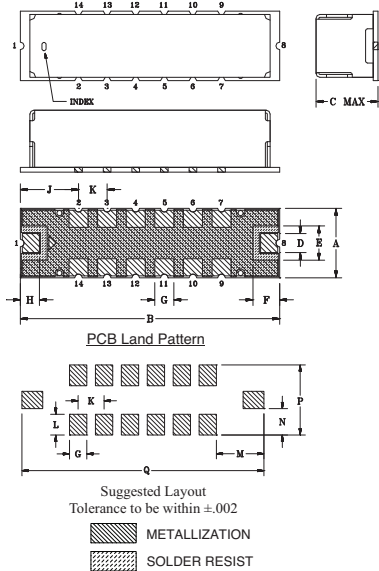
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

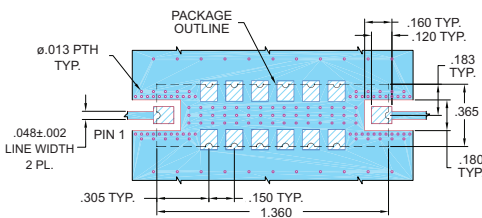
### Outline Drawing



### 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, 1.5:1 typ @ passband
- High rejection
- Shielded case
- Aqueous washable

### Applications

- Industrial microwave and RF
- Harmonic rejection
- Transmitters/receivers



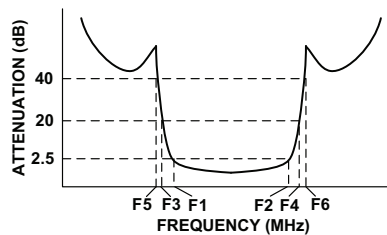
CASE STYLE: HQ1157  
PRICE: \$29.95 ea. QTY (1-9)

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

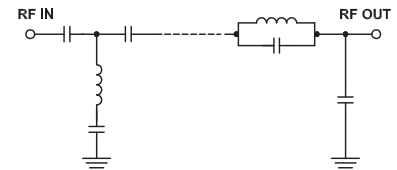
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 2.5dB)	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.
490	400 - 600	280	680	250	710 - 2000	1.5	2.0	20

### Typical Frequency Response

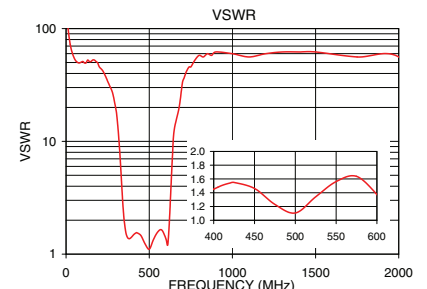
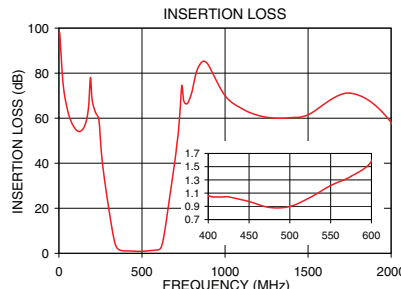


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.5	97.60	157.93
250	50.45	34.07
280	29.80	26.74
305	17.53	16.89
325	8.65	7.14
335	5.20	3.98
350	2.39	1.94
400	1.06	1.45
450	0.97	1.46
490	0.89	1.14
550	1.21	1.56
600	1.58	1.37
620	3.55	1.80
630	6.82	3.69
650	16.16	12.52
680	31.67	20.03
710	48.29	36.58
2000	58.12	56.04



**Mini-Circuits**  
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For detailed performance specs & shopping online see web site

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