

# Surface Mount Bandpass Filter

## BPF-C75+

50Ω 60 to 90 MHz

### Maximum Ratings

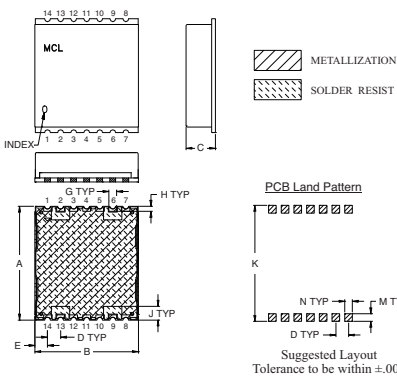
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

### Pin Connections

INPUT	2
OUTPUT	9
NOT CONNECTED	6, 13
GROUND	1, 3, 4, 5, 7, 8, 10, 11, 12, 14

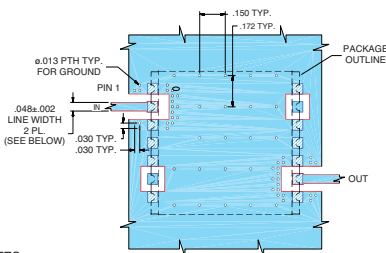
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	G	H	J	K	M	N	wt.
.870	.800	.25	.100	.097	.060	.040	.105	.910	.060	.060	grams
22.10	20.32	6.35	2.54	2.46	1.52	1.02	2.67	23.11	1.52	1.52	2.85

### Demo Board MCL P/N: TB-500+ Suggested PCB Layout (PL-294)



#### NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B, DIELECTRIC THICKNESS: .030±.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.
- Legend:  
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

- High rejection
- Good VSWR, 1.2:1 typ @ passband
- Shielded case
- Aqueous washable

### Applications

- Industrial microwave and RF
- Receivers / transmitters
- Harmonic rejection



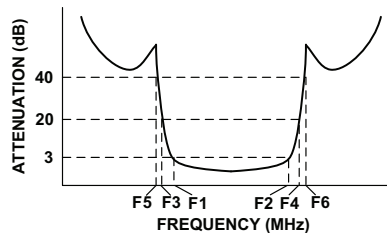
CASE STYLE: HU1186  
PRICE: \$26.95 ea. QTY (1-9)

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

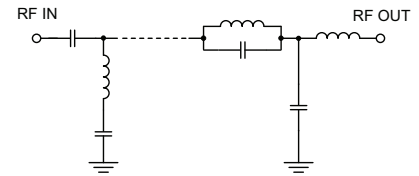
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	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	60 - 90	46	102	42	108 - 1800	1.2	1.6	18

### Typical Frequency Response

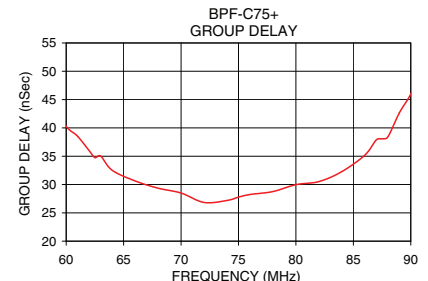
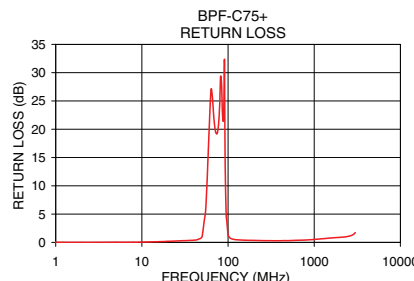
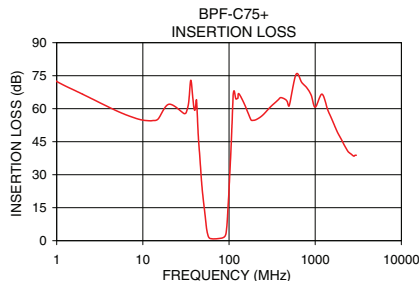


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	79.67	1.09	0.01	60.0	40.28
42.0	63.82	3.90	0.41	62.0	35.98
46.0	37.45	5.83	0.59	64.0	32.52
53.0	11.02	3.22	3.86	66.0	30.64
55.0	5.30	2.56	5.74	68.0	29.36
57.0	2.41	1.17	10.55	70.0	28.50
60.0	1.06	0.16	19.07	72.0	26.84
66.0	0.83	0.05	25.39	74.0	27.19
75.0	0.95	0.04	19.29	75.0	27.77
80.0	1.10	0.05	24.31	76.0	28.24
90.0	2.09	0.09	26.65	78.0	28.76
93.0	4.17	0.46	12.07	80.0	29.98
95.0	8.13	0.86	5.05	82.0	30.52
97.0	14.22	0.93	3.53	84.0	32.29
102.0	30.02	1.06	1.07	86.0	35.19
108.0	51.30	1.66	0.67	87.0	37.89
500.0	61.34	5.48	0.31	88.0	38.39
1800.0	49.59	0.61	0.85	90.0	45.97



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