

Bandpass Filter

BPF-C450+

50Ω 400 to 510 MHz

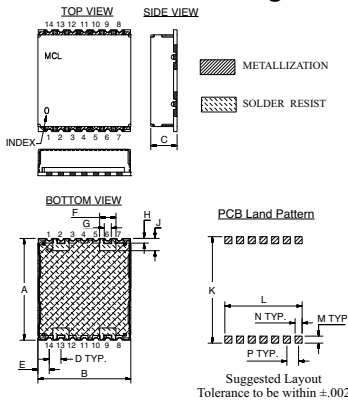
Maximum Ratings

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

Pin Connections

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

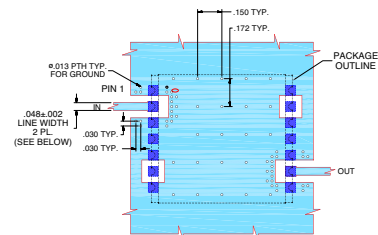
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt. grams
.870	.800	.250	.100	.097	.140	.060	1.02	.105	.910	.660	.060	.060	.100	4.0
22.10	20.32	6.34	2.54	2.46	3.56	1.52	2.67	23.11	5.72	1.52	1.52	2.54		

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.
 - 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 and Avionics
- Receivers / Transmitters
- Harmonic rejection



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

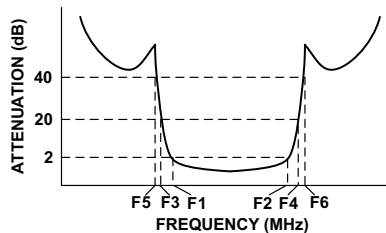
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

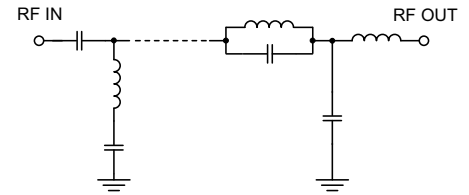
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 2dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
450	400 - 510	310	700	150	760 - 1200	1.3	1.7	18

Typical Frequency Response

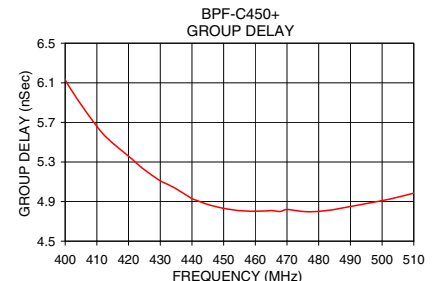
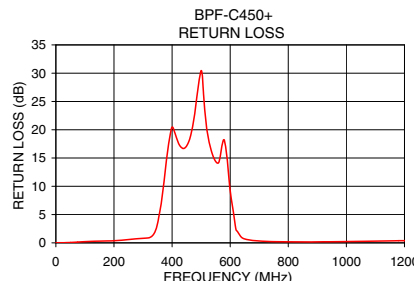
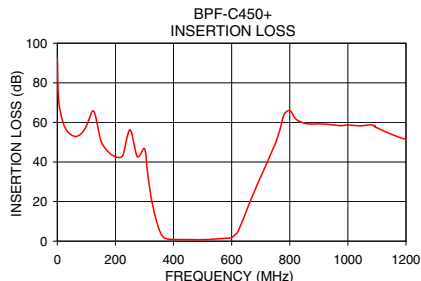


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
0.5	92.65	1.56	0.01	400.0	6.13
150.0	50.75	0.54	0.31	410.0	5.66
310.0	35.49	5.18	0.84	415.0	5.49
340.0	10.85	1.26	1.78	420.0	5.36
355.0	4.37	0.28	4.74	425.0	5.22
365.0	2.16	0.06	7.97	430.0	5.11
400.0	0.86	0.03	20.46	435.0	5.03
430.0	0.81	0.03	16.97	440.0	4.93
450.0	0.81	0.03	17.12	445.0	4.87
470.0	0.80	0.03	20.27	448.0	4.85
510.0	0.80	0.03	25.18	450.0	4.83
580.0	1.48	0.26	18.15	455.0	4.81
610.0	3.03	1.32	5.80	460.0	4.80
625.0	6.05	2.32	2.01	465.0	4.81
640.0	11.26	2.70	0.94	470.0	4.82
700.0	32.58	2.46	0.33	480.0	4.80
760.0	53.15	4.33	0.21	500.0	4.91
1200.0	51.38	2.35	0.39	510.0	4.99



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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RF/IF MICROWAVE COMPONENTS

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