

Bandpass Filter

BPF-B48+

50Ω 47 to 49 MHz

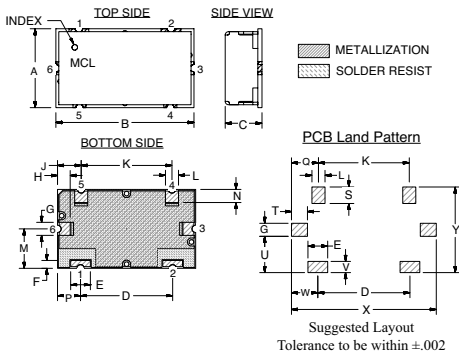
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.15W Max.

Pin Connections

INPUT	1
OUTPUT	2
GROUND	3, 4, 5, 6

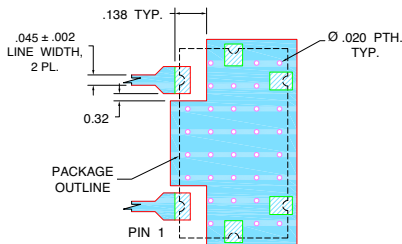
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M
.472	.826	.220	.551	.118	.047	.078	.076	.142	.543	.078	.236
11.99	20.98	5.59	14.00	3.00	1.19	1.98	1.92	3.59	13.79	1.98	5.99
N	P	Q	S	T	U	V	W	X	Y		wt
.079	.138	.162	.098	.096	.217	.067	.157	.866	.512		grams
1.99	3.49	4.11	2.49	2.44	5.51	1.70	3.99	22.00	13.00		6

Demo Board MCL P/N: TB-400+ Suggested PCB Layout (PL-247)



- 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

- High Rejection
- Good VSWR, 1.2:1 Typ @ Passband
- Shielded case
- Aqueous washable

Applications

- Military
- Lab
- Harmonic Rejection
- Transmitters / Receivers



CASE STYLE: HZ1198
PRICE: \$29.95 ea. QTY (1-9)

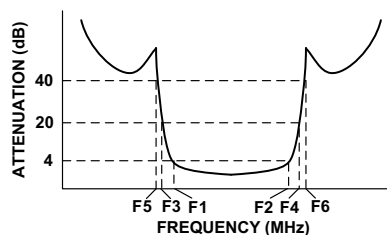
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

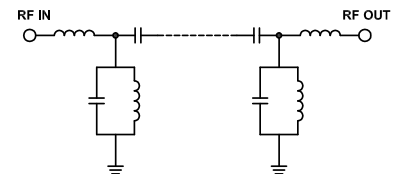
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	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.
48	47 - 49	41	56	37	64 - 2400	1.2	1.5	20

Typical Frequency Response

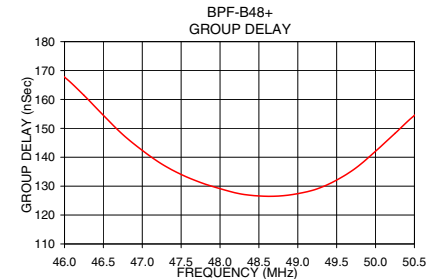
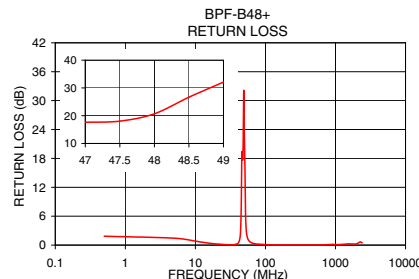
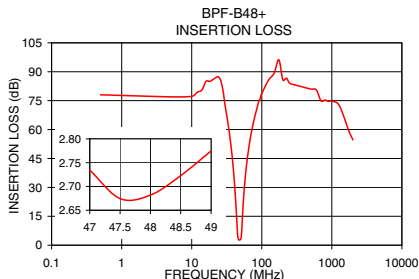


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
0.5	78.03	4.46	1.85	46.00	167.71
37.0	49.10	0.39	0.12	46.25	161.42
41.0	30.99	0.52	0.47	46.50	154.52
44.0	12.42	0.63	2.64	47.00	142.38
45.0	6.45	0.44	6.93	47.25	137.66
46.0	3.43	0.15	19.20	47.50	134.06
47.0	2.73	0.03	17.62	47.75	131.25
47.5	2.67	0.02	18.05	48.00	129.14
48.0	2.68	0.02	20.70	48.25	127.37
48.5	2.72	0.03	26.66	48.50	126.62
49.0	2.77	0.03	32.10	48.75	126.57
51.0	4.54	0.37	15.56	49.00	127.40
52.0	9.10	0.73	6.47	49.25	129.07
53.0	14.81	0.76	3.42	49.50	132.10
56.0	28.44	0.55	1.32	49.75	136.34
64.0	48.44	0.36	0.45	50.00	142.10
500.0	80.99	2.23	0.03	50.25	148.26
2400.0	47.70	0.53	0.47	50.50	154.45



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

REV. OR
M119635
EDR-9508U
BPF-B48+
URJ/RAV
080919
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