

Bandpass Filter

BPF-B503+

50Ω 495 to 510 MHz

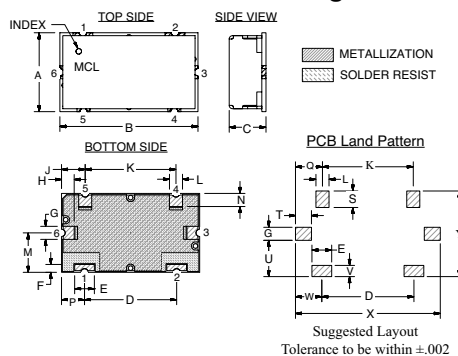
Maximum Ratings

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

Pin Connections

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

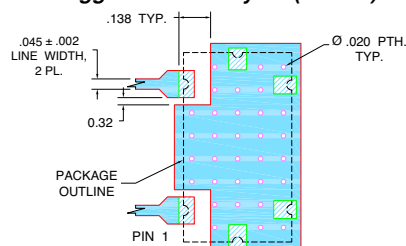
Outline Drawing



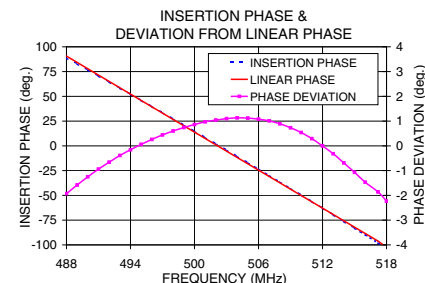
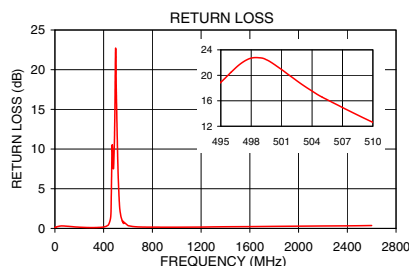
Outline Dimensions (inch/mm)

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	.217	.067	.157	.866	.512			grams	
1.99	3.49	4.11	2.49	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.
- Legend: Blue box: DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER); Green box: DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

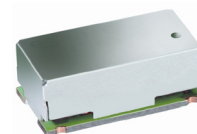


Features

- Linear Phase, up to ± 2 deg Typ @ Fc ± 15 MHz
- High Rejection
- Shielded case
- Aqueous washable

Applications

- Test Setup
- Harmonic Rejection
- Transmitters / Receivers



CASE STYLE: HZ1198

PRICE: \$17.95 ea. QTY (1-9)

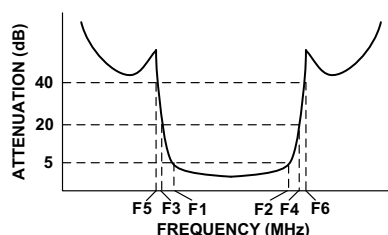
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

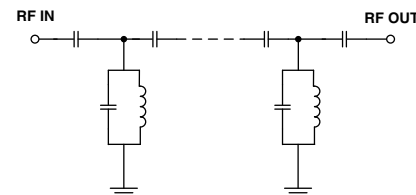
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 5dB) Fc	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.) Fc ± 15 MHz	VSWR (:1)		
		Loss > 20dB		Loss > 40dB			Passband		Stopband
		F3	F4	F5	F6		Typ.	Max.	Typ.
503	495 - 510	440	565	400	610 - 2600	± 5	1.5	2.0	30

Typical Frequency Response



Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Deviation from Linear Phase (deg.)
	$\bar{x}$	σ			
0.5	83.02	0.71	0.11	488.0	-1.93
400.0	53.02	0.41	0.18	489.0	-1.58
440.0	31.89	0.57	0.47	490.0	-1.25
455.0	19.85	0.75	1.14	492.0	-0.66
465.0	10.30	0.61	6.26	494.0	-0.16
470.0	5.76	0.40	10.55	496.0	0.26
495.0	2.92	0.04	18.91	498.0	0.60
499.0	2.84	0.04	22.72	500.0	0.86
503.0	2.92	0.07	18.57	501.0	0.97
505.0	3.09	0.12	16.57	502.0	1.04
510.0	3.52	0.23	12.61	504.0	1.13
520.0	6.12	0.66	6.27	506.0	1.08
530.0	11.91	0.89	2.92	507.0	1.01
550.0	25.33	0.67	1.09	509.0	0.73
565.0	32.43	0.57	0.62	510.0	0.54
610.0	50.26	0.40	0.32	512.0	0.00
1600.0	75.43	0.49	0.23	514.0	-0.69
2600.0	52.44	0.19	0.36	518.0	-2.23

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