

Bandpass Filter

BPF-B503+

50Ω 495 to 510 MHz

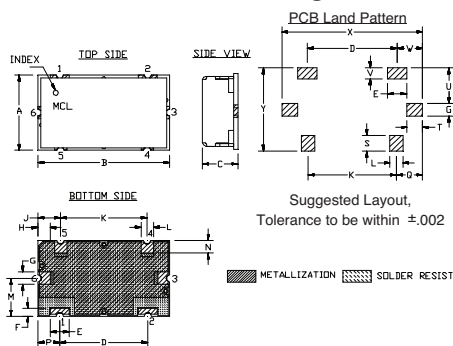
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

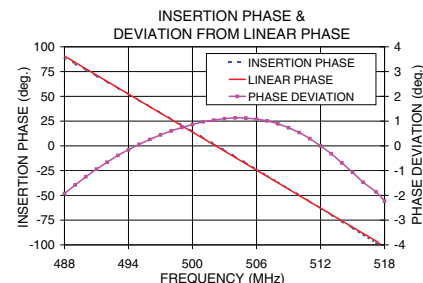
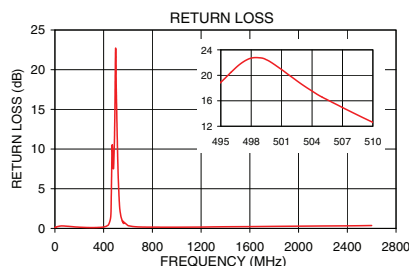
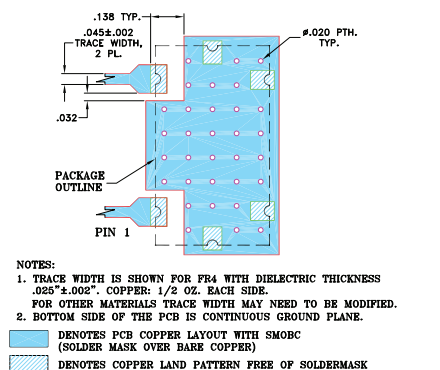
Outline Drawing



Outline Dimensions (inch/mm)

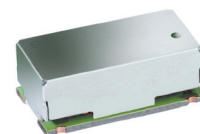
A	B	C	D	E	F	G	H	J	K	L	M
.472"	.826"	.220"	.551"	.118"	.047"	.078"	.076"	.142"	.543"	.078"	.236"
11.99	20.98	5.59	14.00	3.00	1.19	1.98	1.92	3.61	13.79	1.98	5.99
N	P	Q	S	T	U	V	W	X	Y	wt	
.079"	.138"	.162"	.098"	.096"	.217"	.067"	.157"	.866"	.512"	grams	
2.01	3.51	4.11	2.49	2.44	5.51	1.70	3.99	22.00	13.00	6.0	

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



Features

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



CASE STYLE: HZ1198
PRICE: \$17.95 ea. QTY (1-9)

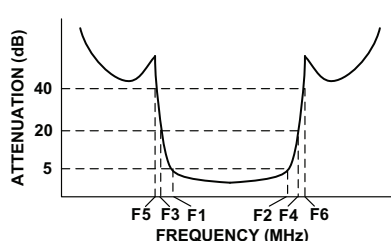
Applications

- Test Setup
- Harmonic Rejection
- Transmitters / Receivers

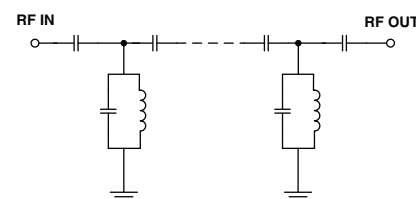
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz) Fc	PASSBAND (MHz) (Loss < 5dB) F1 - F2	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

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

For detailed performance specs & shopping online see web site

REV. OR
M118418
EDR-9175AUF1
BPF-B503+
URJ/RAV
121011
Page 1 of 1