

Surface Mount Bandpass Filter



50Ω 495 to 510 MHz

Features

- Linear Phase, up to ± 2 deg Typ @ $F_c \pm 15$ MHz
- High Rejection
- Shielded case
- Aqueous washable

Applications

- Test Setup
- Harmonic Rejection
- Transmitters / Receivers

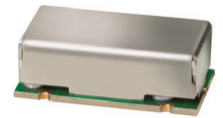
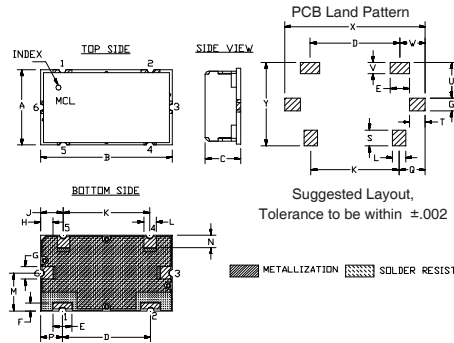
Maximum Ratings

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



ECO BPF-B503+

Bandpass Filter Electrical Specifications ($T_{AMB} = 25^\circ\text{C}$)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 5dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.) $F_c \pm 15$ MHz	VSWR (:1)		
		Loss > 20dB	Loss > 40dB				Passband	Stopband	
F_c	F1 - F2	F3	F4	F5	F6		Typ.	Max.	Typ.
503	495 - 510	440	565	400	610 - 2600	± 5	1.5	2.0	30

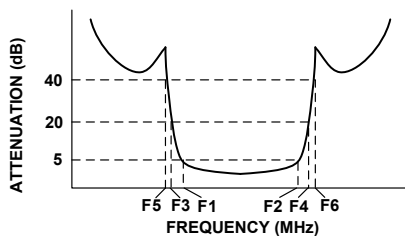
Outline Dimensions (inch mm)

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	

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

Typical Frequency Response



Functional Schematic

