

# Coaxial Bandpass Filter

50Ω 3500 to 4500 MHz

## VBFZ-4000+



### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W at 25°C

\*Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

### Features

- Good Rejection, 30dB typ. up to 16GHz
- Low insertion loss
- Excellent power handling, 7W
- Temperature stable LTCC internal structure
- Rugged stainless steel unibody
- Protected by US Patent 6,943,646

### Application

- Harmonic rejection
- Transmitters/receivers
- Lab use
- Test instrumentation

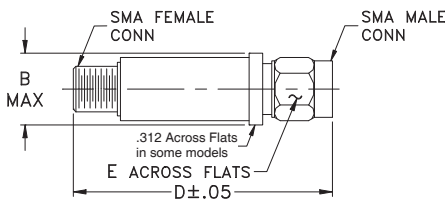
CASE STYLE: FF1145

Connectors	Model
SMA	VBFZ-4000-S+

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Outline Drawing



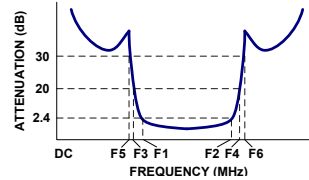
### Outline Dimensions (inch/mm)

B	D	E	wt.
.410	1.91	.312	grams
10.41	48.51	7.92	11.8

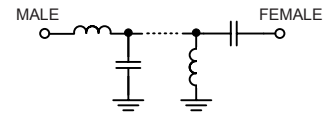
### Band Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

MODEL NO.	CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 2.4dB)	STOPBANDS (MHz)				VSWR (:1)	
			(Loss > 20dB)		(Loss 30dB) Typ.		Passband	Stopband
		F1 - F2	F3	F4	F5	F6	Max.	Typ.
VBFZ-4000+	4000	3500 - 4500	2550	5700	2570	5720 - 16000	2.0	20

### Typical Frequency Response

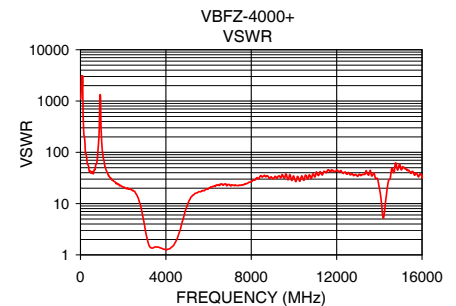
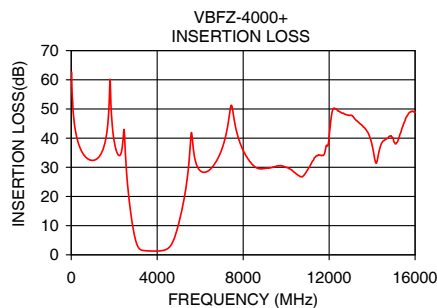


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
60	53.24	3052.52
500	35.26	39.09
1500	36.59	28.28
2550	31.05	16.96
2570	28.83	16.36
2700	18.48	12.92
2840	10.82	8.25
3000	4.89	3.77
3100	2.85	2.27
3500	1.39	1.43
4000	1.29	1.26
4500	2.19	1.95
4900	8.04	7.00
5100	13.77	11.58
5400	26.32	15.93
5570	40.77	17.08
5700	35.29	17.92
5720	34.31	17.82
10000	30.02	34.04
16000	48.83	32.98



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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