

Coaxial Bandpass Filter

VBFZ-3590+

50Ω 3000 to 4300 MHz

Maximum Ratings

Operating Temperature	-55°C to 100°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, 25dB up to 14GHz
- Low insertion loss
- Excellent power handling, 7W
- Temperature stable LTCC internal structure
- Rugged stainless steel unibody
- Protected by US Patent 6,943,646

Applications

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



CASE STYLE: FF1145

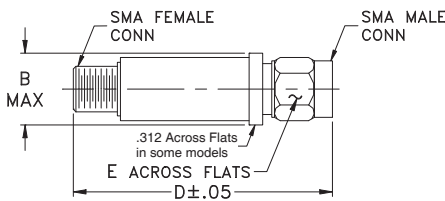
Connectors Model

SMA VBFZ-3590-S+

+RoHS Compliant

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

Outline Drawing



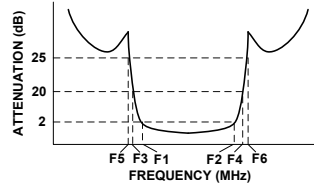
Outline Dimensions (inch mm)

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

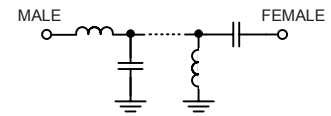
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz) Fc	PASSBAND (MHz) (Loss < 2dB) F1 - F2	STOPBANDS (MHz)				VSWR (:1)		
		(Loss > 20dB)		(Loss 25dB Typ)		Passband		Stopband
		F3	F4	F5	F6	Typ.	Max.	Typ.
3590	3000 - 4300	2250	5950	2200	5950 - 14000	1.3	2.1	20

Typical Frequency Response



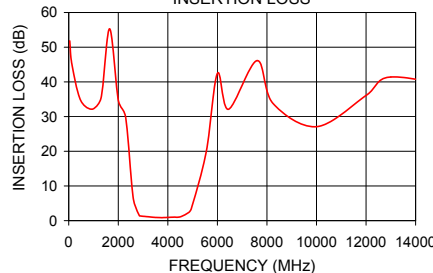
Functional Schematic



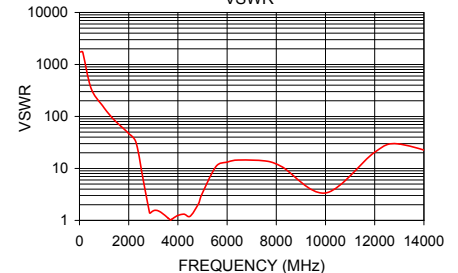
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	51.58	1737.18
1500	42.11	91.43
2200	43.33	36.97
2250	37.02	34.75
2350	24.16	26.33
2550	9.29	8.81
2650	4.57	3.72
2750	2.19	1.82
3000	1.26	1.53
3590	0.89	1.12
4300	1.03	1.30
4750	1.71	1.62
4900	2.90	2.54
5100	6.15	5.06
5300	11.21	8.60
5500	17.93	10.82
5700	24.54	10.56
5950	38.85	12.99
10000	27.08	3.36
14000	31.63	8.51

VBFZ-3590+
INSERTION LOSS



VBFZ-3590+
VSWR



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-Circuit's 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

