COAXIAL

High Pass Filter

VHF-3500+

50Ω 3900 to 9500 MHz

THE BIG DEAL

- Rugged unibody construction, small size
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- Low cost

Generic photo used for illustration purposes only

Model No.	VHF-3500+
Case Style	FF704
Connectors	SMA

APPLICATIONS

- Sub-harmonic rejection
- Transmitters/Receivers
- Lab use

+RoHS Compliant

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

PRODUCT OVERVIEW

VHF-3500+ is a 50Ω high pass filter built in rugged unibody construction. Covering a passband of 3900 to 9500 MHz, this model offers good matching within the passband and good rejection in the stopband. It can handle a high power of 7W with a wide operating temperature range from -55°C to 100°C.

KEY FEATURES

Feature	Advantages
7W power handling	Supports a wide range of system power requirements.
Low insertion loss	Low insertion loss results in better SNR in receiver front end and better power delivery to antenna in transmitters.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test and measurement applications.

REV. C
ECO-013017
VHF-3500+
URJ
220428

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ELECTRICAL SPECIFICATIONS AT 25°C

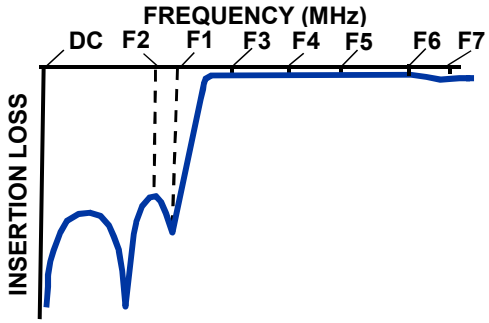
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Freq. cut-off	Insertion Loss	Nom.	3500	—	3	—	dB
Stop Band	Insertion Loss	DC-F1	DC - 2900	—	30	—	dB
		DC-F2	DC - 2800	20	—	—	dB
Passband	Insertion Loss	F5-F6	4000 - 8500	—	—	1.5	dB
		F4-F7	3900 - 9500	—	—	2	dB
	Return Loss	F3-F7	3650 - 9500	—	14	—	dB
No. of Sections	5						

MAXIMUM RATINGS

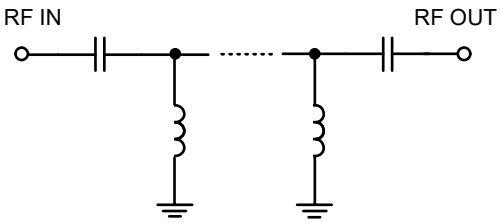
Parameter	Ratings
Operating temperature	-55°C to +100°C
Storage temperature	-55°C to +100°C
RF Power Input*	7W max. at 25°C

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

TYPICAL FREQUENCY RESPONSE



FUNCTIONAL SCHEMATIC



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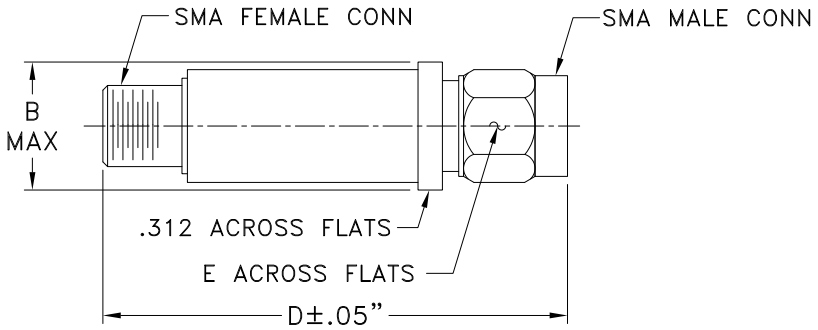
COAXIAL CONNECTIONS

PORT 1	SMA-Male
PORT 2	SMA-Female

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inches / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note. Please refer to case style drawing for details

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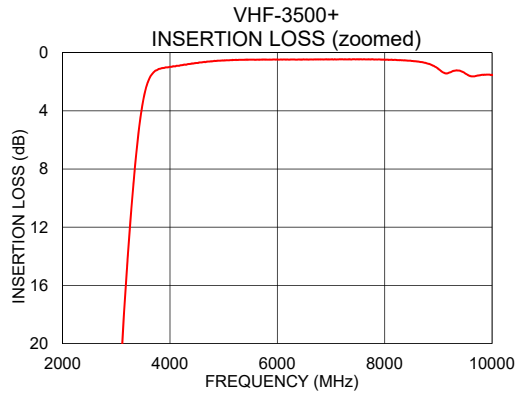
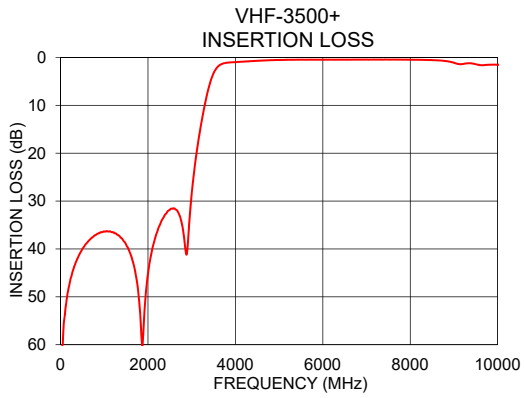
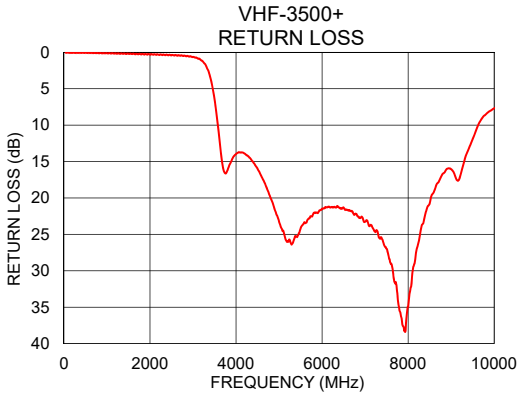
TYPICAL PERFORMANCE DATA AT 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
50	59.86	0.07
400	41.76	0.09
1500	39.10	0.19
2800	35.93	0.46
2900	40.20	0.57
3050	24.27	0.74
3300	9.84	1.83
3500	3.30	6.43
3650	1.55	13.89
3900	1.04	14.81
4000	0.97	13.96
8500	0.57	20.79
9000	1.11	16.06
9200	1.37	17.24
9500	1.43	11.92







NOTES

A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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