

# High Pass Filter

## VHF-2700A+

50Ω 2900 to 8700 MHz

### Maximum 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.

### Features

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

### Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers
- Lab use



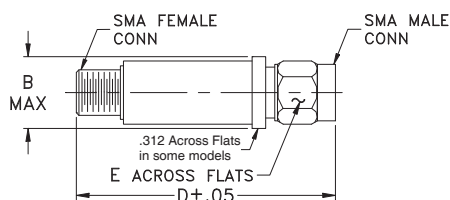
CASE STYLE: FF704

Connectors	Model
SMA	VHF-2700A+

### +RoHS Compliant

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

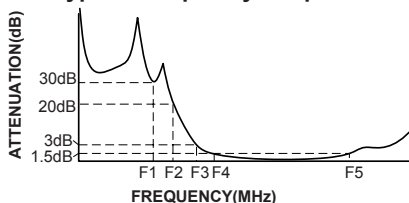
### Outline Drawing



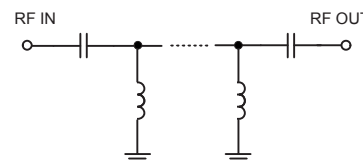
### High Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

STOPBAND (MHz)		fco, MHz	PASSBAND (MHz)		VSWR		NO. OF SECTIONS
(Loss>30dB)	(Loss>20dB)	Nom.	(Loss<1.5dB)	(Loss<2dB)	Typ.	Frequency (MHz)	
Typ. DC-F1	Min. DC-F2	Typ. F3	Max. F4-F5	Max.	Stopband	1.5:1	
DC-2270	DC-2150	2700	3070-8500	2900-8700	20:1	3400-9000	5

### Typical Frequency Response



### Electrical schematic



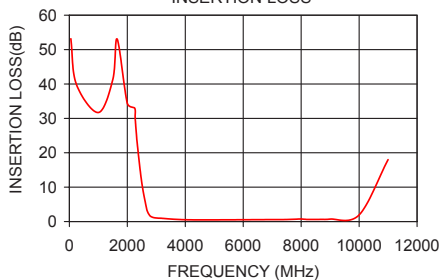
### Outline Dimensions (inch/mm)

B	D	E	wt.
.410	1.43	.312	grams
10.41	36.32	7.92	10

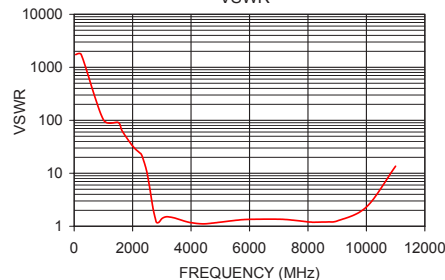
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	53.16	1737.18
240	39.93	1737.18
1000	31.71	102.19
1650	53.03	62.05
2150	40.11	27.59
2270	30.26	23.81
2700	2.84	2.17
3000	1.04	1.39
3070	1.01	1.47
3400	0.80	1.45
6000	0.53	1.35
8500	0.62	1.20
8700	0.63	1.21
9000	0.71	1.26
10000	1.94	2.31
11000	18.01	13.60

VHF-2700A+ INSERTION LOSS



VHF-2700A+ 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](http://www.minicircuits.com/MCLStore/terms.jsp)



# Coaxial High Pass Filter

# VHF-2700A+

## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
50.0	53.16	0.01
240.0	39.93	0.01
1000.0	31.71	0.17
1500.0	41.34	0.19
1650.0	53.03	0.28
2000.0	34.35	0.53
2250.0	33.01	0.72
2270.0	30.26	0.73
2300.0	26.78	0.77
2350.0	21.97	0.90
2500.0	11.16	1.77
2670.0	3.55	6.76
2700.0	2.84	8.64
2730.0	2.29	10.94
2780.0	1.69	16.07
2820.0	1.42	21.64
3000.0	1.04	15.79
3100.0	0.99	14.14
3130.0	0.97	13.95
3150.0	0.96	13.88
3180.0	0.95	13.82
3200.0	0.93	13.80
3400.0	0.80	14.74
3600.0	0.67	16.80
3800.0	0.59	19.34
4000.0	0.54	22.31
4400.0	0.48	25.94
4800.0	0.48	22.48
5500.0	0.51	17.89
6000.0	0.53	16.44
7000.0	0.58	16.43
7500.0	0.59	17.65
8000.0	0.75	20.48
8050.0	0.71	20.72
8100.0	0.67	20.80
8150.0	0.65	21.04
8200.0	0.62	21.04
9000.0	0.71	18.64
10000.0	1.94	8.06
11000.0	18.01	1.28

REV. X1  
VHF-2700A+  
061025  
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# Coaxial High Pass Filter

# VHF-2700A+

## Typical Performance Curves



REV. X1  
VHF-2700A+  
061025  
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# Case Style

# FF

## FF704

### Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF704	--	.410 (10.41)	--	1.43 (36.32)	.312 (7.92)	10.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .04; 3Pl. ± .030

#### Notes:

1. Case material: Stainless steel.
2. Case finish: Gold plated.
3. Round Flange may have .312 Across Flats in some models.

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I