

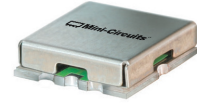
# Surface Mount High Pass Filter

## RHP-700+

50Ω 700 to 3000 MHz

### The Big Deal

- Low insertion loss
- High rejection
- Good return loss



Generic photo used for illustration purposes only  
CASE STYLE: GP1212

### Product Overview

RHP-700+ is a 50Ω high pass filter fabricated using SMT technology. This high pass filter covers from 700-3000 MHz. This filter is built with high Q capacitors and air-coil inductors for superior performance. This filter is developed for square kilometer array telescope systems for radio astronomy. It has repeatable performance across lots and consistent performance across temperature.

### Key Features

Feature	Advantages
Low insertion loss	Can be used in high performance applications such as radio astronomy.
Good rejection	This enables the filter to attenuate spurious signals and reject harmonics for broad frequency band.
Small size, 0.35" x 0.35" x 0.15"	The small surface mount package enables the RHP-700+ to be used in compact designs.

#### 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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### Features

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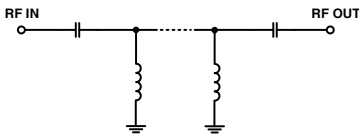
### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Stop Band	Rejection Loss	DC-F1	DC-500	20	30	-	dB
	VSWR	DC-F1	DC-500	-	20	-	:1
Pass Band	Insertion Loss	F2-F3	700-3000	-	0.6	2.0	dB
	VSWR	F2-F3	700-3000	-	1.5	1.8	:1

### Applications

- Radio telescope applications
- Aeronautical / aviation
- Wireless communications service
- Maritime

### Functional Schematic



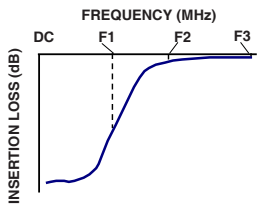
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W max.

Permanent damage may occur if any of these limits are exceeded.

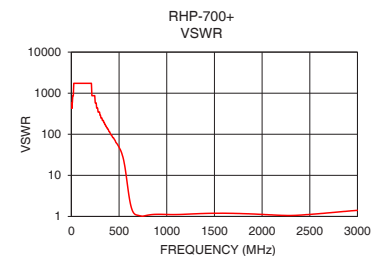
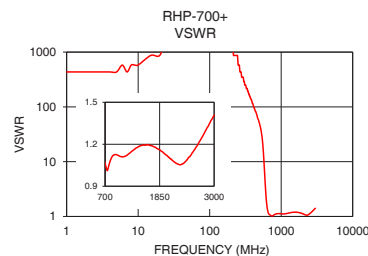
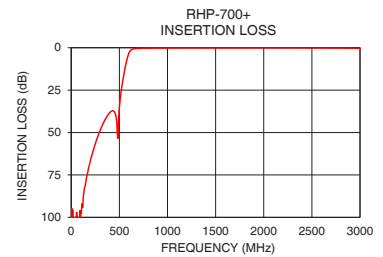
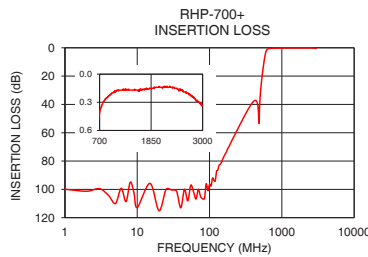
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	99.92	434.30
280	51.65	347.44
500	35.33	48.26
540	17.82	28.03
575	7.77	9.74
600	3.11	3.65
618	1.49	2.08
638	0.79	1.42
700	0.42	1.06
1000	0.20	1.12
1320	0.17	1.16
1670	0.16	1.19
1870	0.15	1.16
1990	0.14	1.12
2200	0.13	1.06
2380	0.15	1.07
2540	0.17	1.14
2760	0.23	1.26
2900	0.29	1.35
3000	0.33	1.41

### Typical Frequency Response



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