

# Coaxial High Pass Filter

## NHP-600+

50Ω 600 to 3000 MHz

### Maximum Ratings

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

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

### Features

- rugged shielded case
- other standard and custom NHP models available with wide selection of fco

### Applications

- lab use
- transmitters/receivers
- radio communications



Generic photo used for illustration purposes only  
CASE STYLE: FF57

Connectors	Model
N-Type	NHP-600+

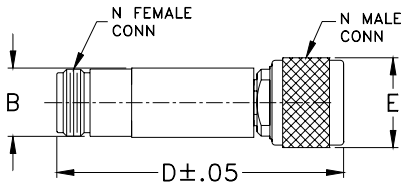
**+RoHS Compliant**

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

### High Pass Filter Electrical Specifications

STOPBAND (MHz)	fco (MHz) Nom.	PASSBAND (MHz)	VSWR (:1)
(loss > 40 dB)	(loss > 20 dB)	(loss < 3 dB)	Stopband Typ. Passband Typ.
DC-350	350-440	600-3000	17 2.0

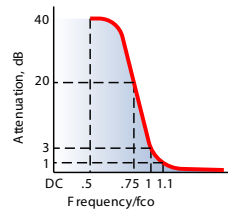
### Outline Drawing



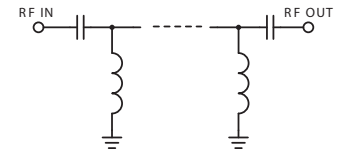
### Outline Dimensions (inch/mm)

B	D	E	wt
.67	2.90	.82	grams
17.02	73.66	20.83	90.0

### typical frequency response

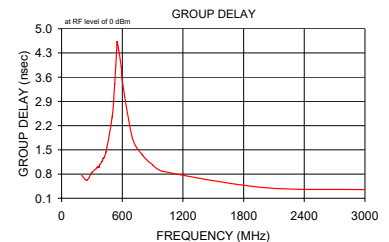
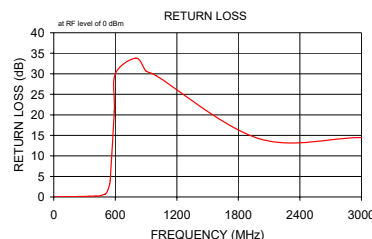
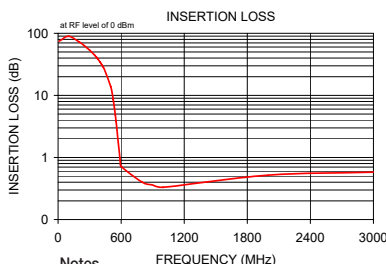


### electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) $\bar{x}$ $\sigma$	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	74.47 4.27	0.04	200.00	0.76
100.00	89.80 7.14	0.05	250.00	0.62
200.00	72.58 0.82	0.07	300.00	0.84
250.00	63.01 0.88	0.12	350.00	0.98
300.00	53.56 0.81	0.12	360.00	1.01
350.00	44.05 0.88	0.18	362.00	1.02
360.00	42.15 0.91	0.18	364.00	0.99
364.00	41.37 0.91	0.18	366.00	1.00
366.00	40.99 0.91	0.19	368.00	1.00
368.00	40.60 0.92	0.19	370.00	0.99
370.00	40.22 0.92	0.19	372.00	1.02
372.00	39.82 0.92	0.18	374.00	1.05
374.00	39.45 0.93	0.19	376.00	1.06
376.00	39.06 0.93	0.19	400.00	1.17
400.00	34.36 0.98	0.20	410.00	1.25
410.00	32.39 1.00	0.22	420.00	1.27
420.00	30.45 1.01	0.19	430.00	1.35
430.00	28.45 1.04	0.21	440.00	1.44
440.00	26.44 1.06	0.23	500.00	2.45
500.00	13.91 1.14	0.68	525.00	3.40
525.00	8.60 1.05	1.46	545.00	4.39
545.00	4.82 0.82	3.18	551.00	4.63
551.00	3.88 0.72	4.10	590.00	3.90
590.00	0.89 0.15	20.77	600.00	3.49
600.00	0.72 0.07	29.98	700.00	1.85
800.00	0.40 0.03	33.79	800.00	1.35
900.00	0.36 0.03	30.63	900.00	1.07
1000.00	0.33 0.01	29.54	1000.00	0.88
2000.00	0.52 0.05	14.20	2000.00	0.41
3000.00	0.58 0.05	14.47	3000.00	0.35



#### 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-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	74.47	0.04	200.0	0.760
100.0	89.80	0.05	250.0	0.620
200.0	72.58	0.07	300.0	0.840
250.0	63.01	0.12	350.0	0.980
300.0	53.56	0.12	360.0	1.010
350.0	44.05	0.18	362.0	1.020
360.0	42.15	0.18	364.0	0.990
362.0	41.76	0.18	366.0	1.000
364.0	41.37	0.18	368.0	1.000
366.0	40.99	0.19	370.0	0.990
368.0	40.60	0.19	372.0	1.020
370.0	40.22	0.19	374.0	1.050
372.0	39.82	0.18	376.0	1.060
374.0	39.45	0.19	400.0	1.170
376.0	39.06	0.19	410.0	1.250
400.0	34.36	0.20	420.0	1.270
410.0	32.39	0.22	430.0	1.350
420.0	30.45	0.19	440.0	1.440
430.0	28.45	0.21	450.0	1.510
440.0	26.44	0.23	460.0	1.630
450.0	24.44	0.33	465.0	1.720
460.0	22.38	0.35	470.0	1.800
465.0	21.34	0.37	475.0	1.890
470.0	20.29	0.39	500.0	2.450
475.0	19.23	0.42	505.0	2.590
500.0	13.91	0.68	510.0	2.760
505.0	12.84	0.78	515.0	2.960
510.0	11.76	0.90	520.0	3.170
515.0	10.70	1.04	525.0	3.400
520.0	9.64	1.23	545.0	4.390
525.0	8.60	1.46	551.0	4.630
545.0	4.82	3.18	557.0	4.760
557.0	3.07	5.28	564.0	4.780
564.0	2.30	7.09	570.0	4.680
570.0	1.79	9.07	577.0	4.460
577.0	1.35	12.04	583.0	4.210
590.0	0.89	20.77	590.0	3.900
600.0	0.72	29.98	600.0	3.490
650.0	0.56	15.56	650.0	2.290
700.0	0.46	18.08	700.0	1.850
750.0	0.41	25.35	750.0	1.570
800.0	0.40	33.79	800.0	1.350
850.0	0.39	30.47	850.0	1.190
900.0	0.36	30.63	900.0	1.070
950.0	0.35	32.35	950.0	0.970
1000.0	0.33	29.54	1000.0	0.880
1500.0	0.51	13.91	1500.0	0.520
2000.0	0.52	14.20	2000.0	0.410
2500.0	0.50	15.23	2500.0	0.370
3000.0	0.58	14.47	3000.0	0.350

REV. X1  
NHP-600+  
070628  
Page 1 of 1



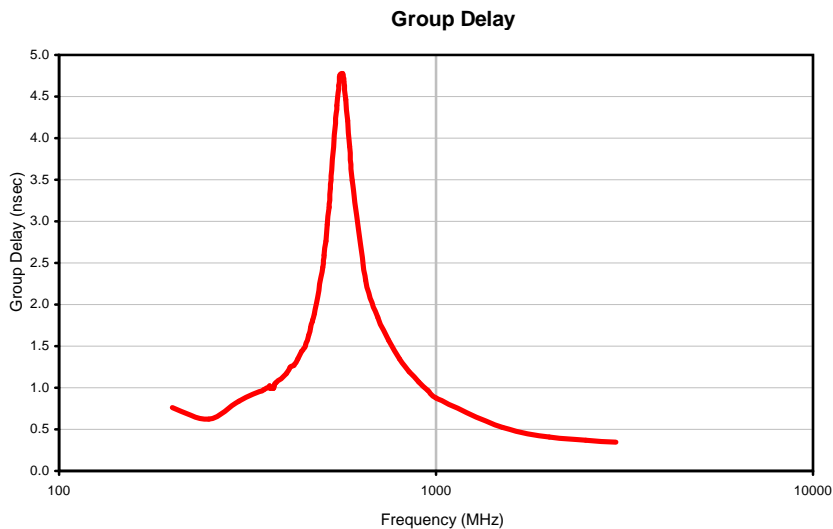
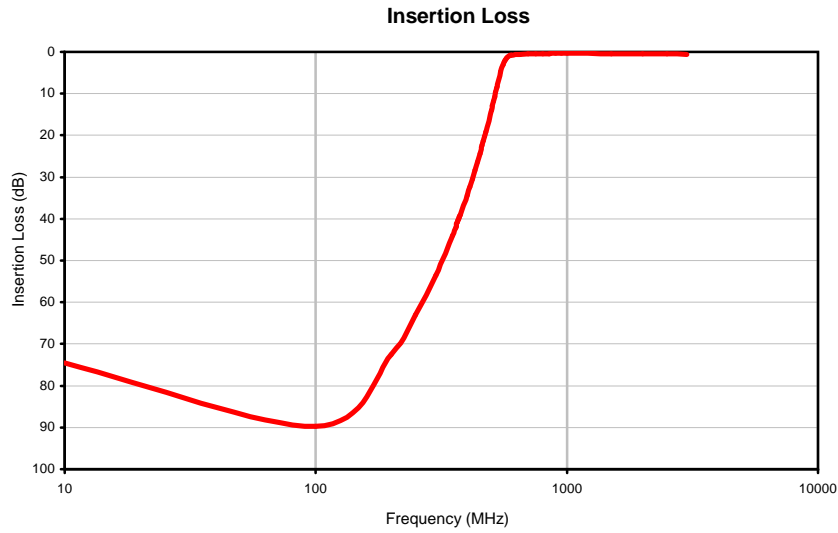
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## Typical Performance Curves



REV. X1  
NHP-600+  
070628  
Page 1 of 1



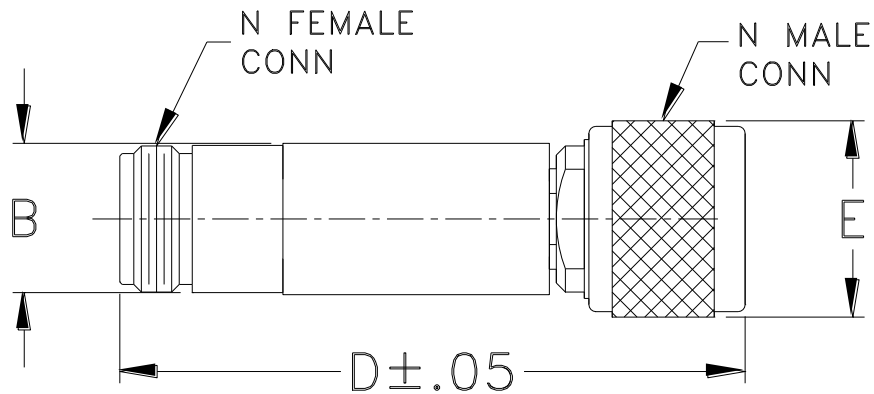
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### Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF57	--	.70 (17.78)	--	2.90 (73.66)	.82 (20.83)	90.0

**Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015**

#### Note:

1. Case material: Stainless steel.



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