

Coaxial High Pass Filter

50Ω 1000 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

NHP-1000+



Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors Model
N-Type NHP-1000+

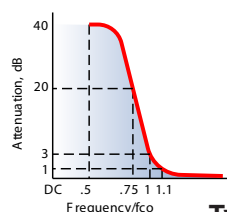
+RoHS Compliant

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

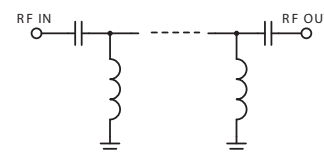
High Pass Filter Electrical Specifications

STOPBAND (MHz)		fco (MHz) Nom.	PASSBAND (MHz)	VSWR (:1)	
(loss > 40 dB)	(loss > 20 dB)	(loss 3 dB)	(loss < 1 dB)	Stopband Typ.	Passband Typ.
DC-550	550-720	900	1000-3000	17	1.9

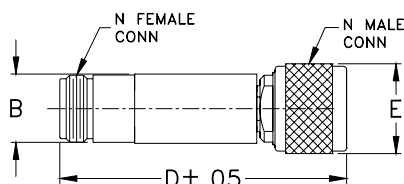
typical frequency response



electrical schematic



Outline Drawing

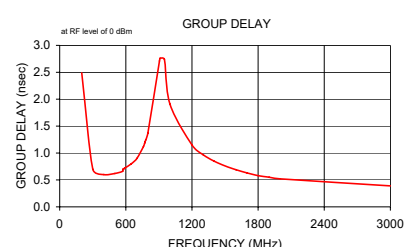
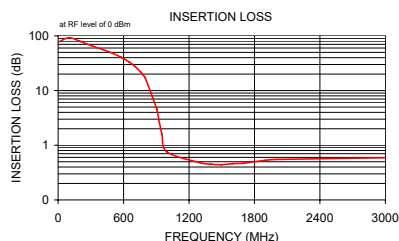


Outline Dimensions (inch)

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

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ			
10.00	78.36	9.58	0.04	200.00	2.49
100.00	92.78	5.61	0.04	300.00	0.70
200.00	79.46	0.24	0.06	400.00	0.60
300.00	66.75	0.59	0.08	500.00	0.62
400.00	57.09	0.36	0.10	570.00	0.66
500.00	47.95	0.34	0.13	575.00	0.70
570.00	41.39	0.36	0.18	580.00	0.71
575.00	40.90	0.36	0.18	585.00	0.71
580.00	40.42	0.36	0.18	590.00	0.72
590.00	39.42	0.35	0.18	650.00	0.80
650.00	33.45	0.38	0.24	700.00	0.90
700.00	28.16	0.40	0.26	760.00	1.12
760.00	21.52	0.44	0.32	770.00	1.18
770.00	20.37	0.44	0.35	775.00	1.21
775.00	19.78	0.45	0.37	780.00	1.24
780.00	19.20	0.45	0.39	800.00	1.37
800.00	16.84	0.47	0.48	905.00	2.71
905.00	4.61	0.38	3.48	910.00	2.76
910.00	4.15	0.35	3.92	950.00	2.74
950.00	1.62	0.14	9.92	1000.00	1.91
1000.00	0.75	0.01	30.95	1200.00	1.15
1300.00	0.48	0.01	22.80	1300.00	0.97
1400.00	0.45	0.01	23.28	1400.00	0.85
1500.00	0.44	0.01	22.21	1500.00	0.76
1600.00	0.46	0.02	20.17	1600.00	0.69
1700.00	0.47	0.02	18.16	1700.00	0.63
1800.00	0.50	0.02	16.58	1800.00	0.58
1900.00	0.53	0.02	15.46	1900.00	0.55
2000.00	0.55	0.03	14.74	2000.00	0.52
3000.00	0.59	0.03	14.76	3000.00	0.39



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.

C. 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



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Coaxial High Pass Filter

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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	78.36	0.04	200.0	2.490
100.0	92.78	0.04	300.0	0.700
200.0	79.46	0.06	400.0	0.600
300.0	66.75	0.08	500.0	0.620
400.0	57.09	0.10	570.0	0.660
500.0	47.95	0.13	575.0	0.700
570.0	41.39	0.18	580.0	0.710
575.0	40.90	0.18	585.0	0.710
580.0	40.42	0.18	590.0	0.720
585.0	39.92	0.18	650.0	0.800
590.0	39.42	0.18	700.0	0.900
650.0	33.45	0.24	760.0	1.120
700.0	28.16	0.26	765.0	1.150
760.0	21.52	0.32	770.0	1.180
770.0	20.37	0.35	775.0	1.210
780.0	19.20	0.39	780.0	1.240
800.0	16.84	0.48	800.0	1.370
844.0	11.50	0.92	844.0	1.800
850.0	10.77	1.03	850.0	1.880
860.0	9.56	1.25	860.0	2.030
910.0	4.15	3.92	910.0	2.760
920.0	3.32	4.99	920.0	2.840
930.0	2.63	6.32	930.0	2.860
940.0	2.06	7.94	940.0	2.820
950.0	1.62	9.92	950.0	2.740
960.0	1.30	12.33	960.0	2.630
970.0	1.07	15.30	970.0	2.510
980.0	0.91	19.14	980.0	2.370
1000.0	0.75	30.95	1000.0	1.910
1050.0	0.68	18.49	1050.0	1.680
1100.0	0.66	16.92	1100.0	1.430
1150.0	0.60	17.93	1150.0	1.270
1200.0	0.55	19.75	1200.0	1.150
1250.0	0.51	21.66	1250.0	1.050
1300.0	0.48	22.80	1300.0	0.970
1350.0	0.46	23.43	1350.0	0.910
1400.0	0.45	23.28	1400.0	0.850
1450.0	0.44	22.98	1450.0	0.800
1500.0	0.44	22.21	1500.0	0.760
1550.0	0.45	21.26	1550.0	0.720
1600.0	0.46	20.17	1600.0	0.690
1650.0	0.46	19.12	1650.0	0.660
1700.0	0.47	18.16	1700.0	0.630
1750.0	0.49	17.31	1750.0	0.610
1800.0	0.50	16.58	1800.0	0.580
1850.0	0.52	15.96	1850.0	0.570
1900.0	0.53	15.46	1900.0	0.550
1950.0	0.55	15.04	1950.0	0.530
2000.0	0.55	14.74	2000.0	0.520
2050.0	0.56	14.49	2050.0	0.500
2100.0	0.56	14.30	2100.0	0.490
2150.0	0.57	14.21	2150.0	0.480
2200.0	0.57	14.08	2200.0	0.470
3000.0	0.59	14.76	3000.0	0.390

REV. X1
NHP-1000+
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Page 1 of 1



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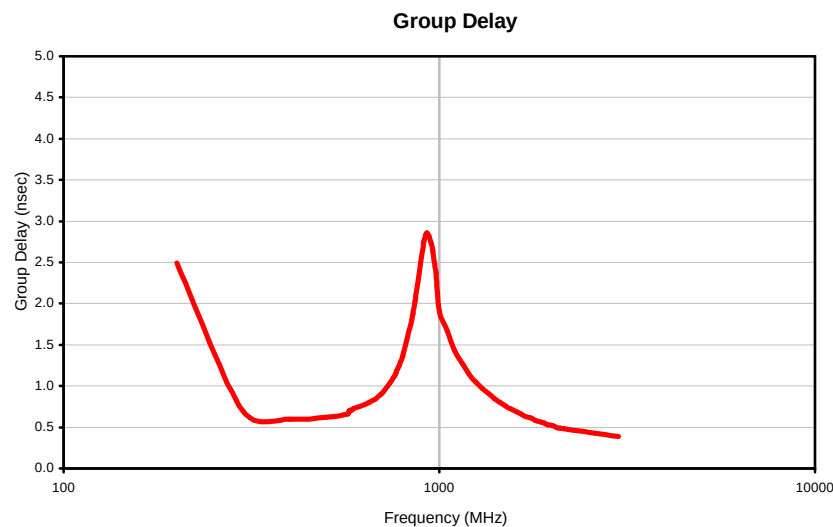
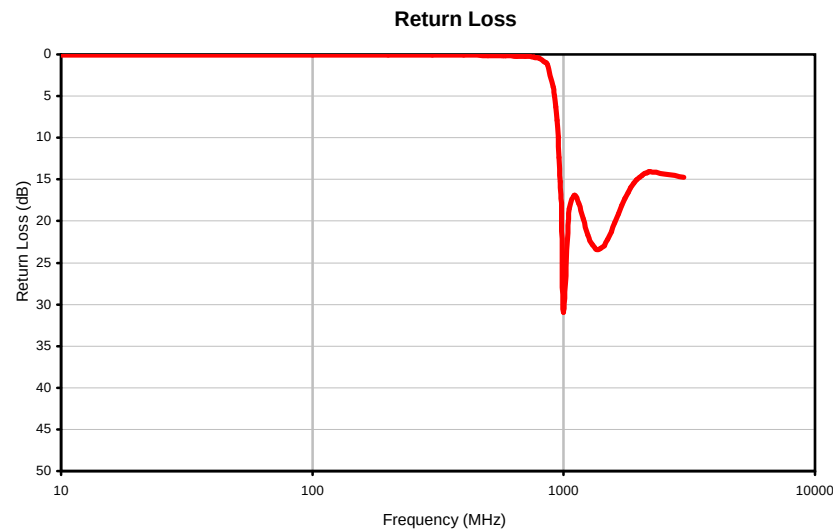
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NHP-1000+

Typical Performance Curves



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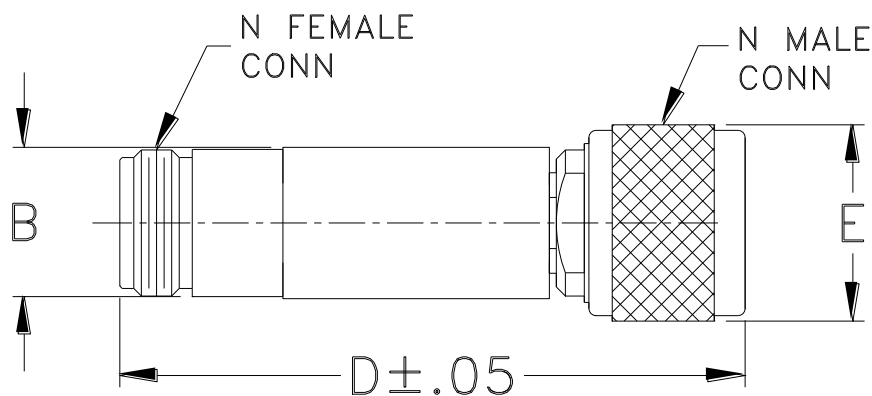


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REV. X1
NHP-1000+
070628
Page 1 of 1

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.

Specification	Test/Inspection Condition	Reference/Spec
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