

Coaxial High Pass Filter

50Ω 395 to 3200 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-400+
NHP-400



CASE STYLE: FF57

Connectors	Model
N-Type	NHP-400(+)

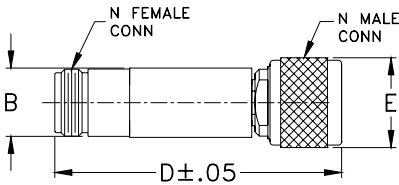
+RoHS Compliant

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

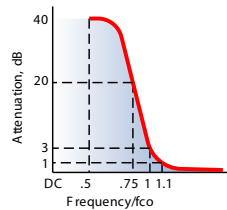
High Pass Filter Electrical Specifications

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-210	210-290	360	395-3200	17	1.7

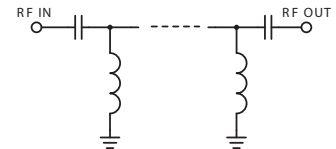
Outline Drawing



typical frequency response



electrical schematic

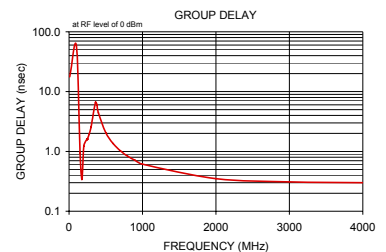
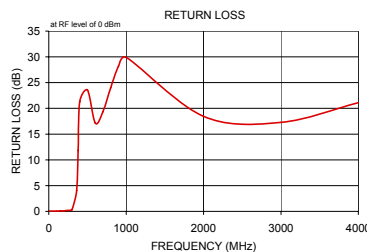
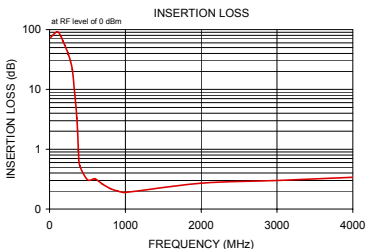


Outline Dimensions (inch)

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) $\bar{x}$	σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	73.49	3.76	0.05	10.00	17.71
100.00	92.04	7.79	0.05	100.00	57.88
150.00	76.80	1.38	0.11	150.00	0.94
175.00	64.86	0.57	0.09	175.00	0.34
200.00	55.25	0.43	0.10	200.00	1.22
240.00	41.38	0.57	0.17	240.00	1.56
241.00	41.06	0.57	0.17	241.00	1.56
242.00	40.72	0.57	0.18	242.00	1.57
243.00	40.39	0.58	0.17	243.00	1.57
244.00	40.06	0.58	0.18	244.00	1.58
245.00	39.73	0.58	0.18	245.00	1.61
246.00	39.40	0.57	0.18	246.00	1.60
247.00	39.07	0.59	0.18	247.00	1.60
250.00	38.09	0.59	0.18	250.00	1.61
275.00	29.94	0.66	0.22	275.00	1.96
300.00	21.83	0.75	0.33	300.00	2.53
301.00	21.50	0.75	0.33	301.00	2.56
302.00	21.18	0.76	0.34	302.00	2.59
360.00	3.31	0.67	4.07	360.00	6.64
380.00	0.95	0.19	11.83	380.00	6.00
400.00	0.53	0.01	21.31	400.00	4.41
500.00	0.31	0.02	23.56	500.00	2.06
600.00	0.32	0.03	17.14	600.00	1.35
700.00	0.26	0.02	19.37	700.00	1.02
800.00	0.22	0.01	24.00	800.00	0.83
900.00	0.20	0.01	28.18	900.00	0.71
1000.00	0.19	0.01	29.90	1000.00	0.61
2000.00	0.27	0.02	18.44	2000.00	0.35
3000.00	0.30	0.03	17.29	3000.00	0.31
4000.00	0.34	0.01	21.10	4000.00	0.30



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



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REV. C
M151107
NHP-400
150917

Coaxial High Pass Filter

NHP-400+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	73.49	0.05	10.0	17.710
100.0	92.04	0.05	100.0	57.880
150.0	76.80	0.11	150.0	0.940
175.0	64.86	0.09	175.0	0.340
200.0	55.25	0.10	200.0	1.220
240.0	41.38	0.17	240.0	1.560
242.0	40.72	0.18	242.0	1.570
244.0	40.06	0.18	244.0	1.580
245.0	39.73	0.18	245.0	1.610
246.0	39.40	0.18	246.0	1.600
250.0	38.09	0.18	250.0	1.610
275.0	29.94	0.22	275.0	1.960
300.0	21.83	0.33	300.0	2.530
302.0	21.18	0.34	302.0	2.590
304.0	20.53	0.36	304.0	2.660
305.0	20.20	0.37	305.0	2.700
306.0	19.87	0.38	306.0	2.740
308.0	19.22	0.40	308.0	2.810
320.0	15.26	0.57	320.0	3.370
330.0	11.94	0.82	330.0	4.050
332.0	11.28	0.90	332.0	4.210
334.0	10.63	0.97	334.0	4.370
336.0	9.98	1.07	336.0	4.550
338.0	9.33	1.18	338.0	4.730
340.0	8.70	1.30	340.0	4.910
350.0	5.72	2.24	350.0	5.900
355.0	4.42	3.02	355.0	6.330
356.0	4.19	3.21	356.0	6.400
358.0	3.73	3.61	358.0	6.540
360.0	3.31	4.07	360.0	6.640
364.0	2.58	5.14	364.0	6.750
366.0	2.26	5.77	366.0	6.760
368.0	1.98	6.45	368.0	6.720
370.0	1.74	7.20	370.0	6.660
372.0	1.53	8.00	372.0	6.570
374.0	1.34	8.87	374.0	6.460
376.0	1.19	9.80	376.0	6.320
378.0	1.06	10.79	378.0	6.160
380.0	0.95	11.83	380.0	6.000
400.0	0.53	21.31	400.0	4.410
450.0	0.39	23.90	450.0	2.740
500.0	0.31	23.56	500.0	2.060
550.0	0.32	18.16	550.0	1.630
600.0	0.32	17.14	600.0	1.350
650.0	0.30	17.94	650.0	1.150
700.0	0.26	19.37	700.0	1.020
750.0	0.24	21.60	750.0	0.910
800.0	0.22	24.00	800.0	0.830
850.0	0.21	26.43	850.0	0.750
900.0	0.20	28.18	900.0	0.710
950.0	0.20	29.43	950.0	0.650
1000.0	0.19	29.90	1000.0	0.610
2000.0	0.27	18.44	2000.0	0.350
3000.0	0.30	17.29	3000.0	0.310
4000.0	0.34	21.10	4000.0	0.300

REV. X1
NHP-400+
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Page 1 of 1



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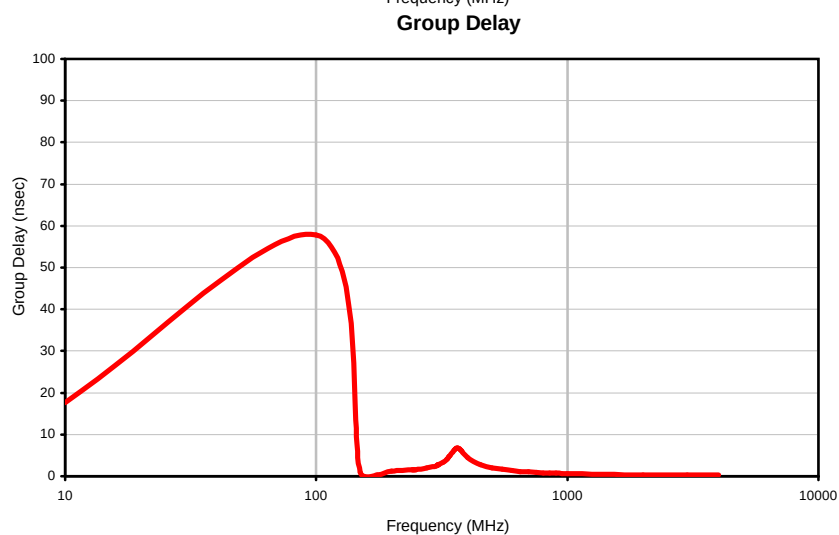
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Coaxial High Pass Filter

NHP-400+

Typical Performance Curves



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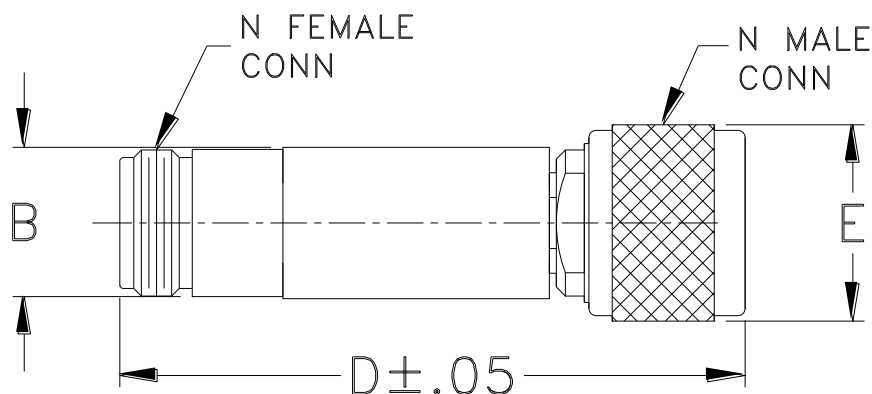


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REV. X1
NHP-400+
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Page 1 of 1

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