

Coaxial

High Pass Filter

NHP-150+

50Ω 133 to 1000 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-150+

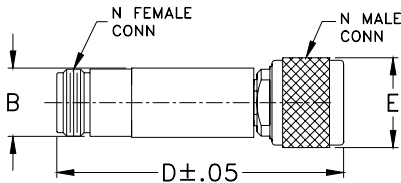
+RoHS Compliant

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 3 dB)	(loss < 1 dB)	Stopband Typ. Passband Typ.
DC-70	70-95	120	133-1000
			17 1.8

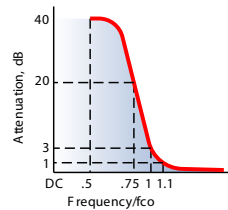
Outline Drawing



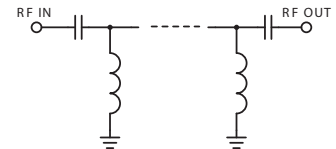
Outline Dimensions (inch mm)

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

typical frequency response

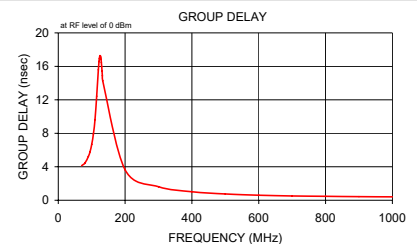
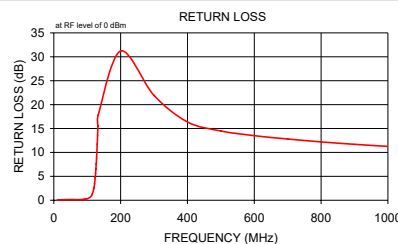
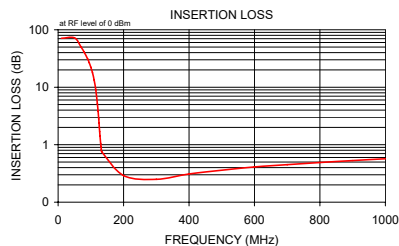


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) $\bar{x}$	σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	71.12	2.99	0.09	70.00	4.13
50.00	72.50	1.13	0.15	80.00	4.46
70.00	50.20	0.59	0.13	90.00	5.24
80.00	40.39	0.58	0.15	95.00	5.80
90.00	31.22	0.67	0.22	100.00	6.67
95.00	26.73	0.74	0.27	105.00	7.91
100.00	22.30	0.81	0.33	110.00	9.63
105.00	17.87	0.89	0.47	115.00	12.43
110.00	13.42	0.97	0.71	120.00	15.59
115.00	9.04	1.02	1.23	122.00	16.58
120.00	5.14	0.91	2.53	123.00	16.93
122.00	3.87	0.80	3.46	124.00	17.17
124.00	2.81	0.65	4.77	125.00	17.28
125.00	2.37	0.57	5.58	126.00	17.26
126.00	2.00	0.49	6.52	127.00	17.11
127.00	1.69	0.41	7.60	128.00	16.84
128.00	1.43	0.33	8.81	129.00	16.45
130.00	1.05	0.21	11.74	130.00	15.98
131.00	0.93	0.15	13.50	131.00	15.45
132.00	0.82	0.11	15.52	132.00	14.88
133.00	0.76	0.07	17.84	133.00	14.29
200.00	0.29	0.02	31.20	200.00	3.64
300.00	0.25	0.02	21.92	300.00	1.62
400.00	0.31	0.02	16.38	400.00	1.02
500.00	0.36	0.01	14.49	500.00	0.75
600.00	0.41	0.01	13.50	600.00	0.60
700.00	0.45	0.01	12.80	700.00	0.51
800.00	0.49	0.01	12.20	800.00	0.47
900.00	0.53	0.00	11.70	900.00	0.43
1000.00	0.57	0.00	11.26	1000.00	0.41



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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NHP-150+
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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	71.12	0.09	70.0	4.130
50.0	72.50	0.15	75.0	4.020
70.0	50.20	0.13	80.0	4.460
75.0	45.17	0.14	85.0	4.810
80.0	40.39	0.15	90.0	5.240
85.0	35.75	0.18	95.0	5.800
90.0	31.22	0.22	100.0	6.670
95.0	26.73	0.27	101.0	6.900
100.0	22.30	0.33	102.0	7.140
101.0	21.42	0.37	103.0	7.390
102.0	20.53	0.39	104.0	7.650
103.0	19.63	0.41	105.0	7.910
104.0	18.75	0.44	110.0	9.630
105.0	17.87	0.47	111.0	10.090
110.0	13.42	0.71	112.0	10.600
111.0	12.52	0.77	113.0	11.170
112.0	11.64	0.86	114.0	11.770
113.0	10.77	0.96	115.0	12.430
114.0	9.91	1.10	120.0	15.590
115.0	9.04	1.23	121.0	16.130
120.0	5.14	2.53	122.0	16.580
121.0	4.48	2.95	123.0	16.930
122.0	3.87	3.46	124.0	17.170
123.0	3.30	4.07	125.0	17.280
124.0	2.81	4.77	126.0	17.260
125.0	2.37	5.58	127.0	17.110
126.0	2.00	6.52	128.0	16.840
127.0	1.69	7.60	129.0	16.450
128.0	1.43	8.81	130.0	15.980
129.0	1.22	10.18	131.0	15.450
130.0	1.05	11.74	132.0	14.880
131.0	0.93	13.50	133.0	14.290
132.0	0.82	15.52	150.0	7.770
133.0	0.76	17.84	200.0	3.640
150.0	0.58	16.01	250.0	2.270
200.0	0.29	31.20	300.0	1.620
250.0	0.24	30.41	350.0	1.250
300.0	0.25	21.92	400.0	1.020
350.0	0.28	18.41	450.0	0.850
400.0	0.31	16.38	500.0	0.750
450.0	0.35	15.24	550.0	0.680
500.0	0.36	14.49	600.0	0.600
550.0	0.39	13.94	650.0	0.550
600.0	0.41	13.50	700.0	0.510
650.0	0.44	13.13	750.0	0.490
700.0	0.45	12.80	800.0	0.470
800.0	0.49	12.20	850.0	0.440
900.0	0.53	11.70	900.0	0.430
950.0	0.55	11.48	950.0	0.410
1000.0	0.57	11.26	1000.0	0.410
1500.0	0.78	9.75	1500.0	0.340
2000.0	0.89	9.30	2000.0	0.320
2500.0	0.88	9.75	2500.0	0.320
3000.0	1.14	11.88	3000.0	0.300

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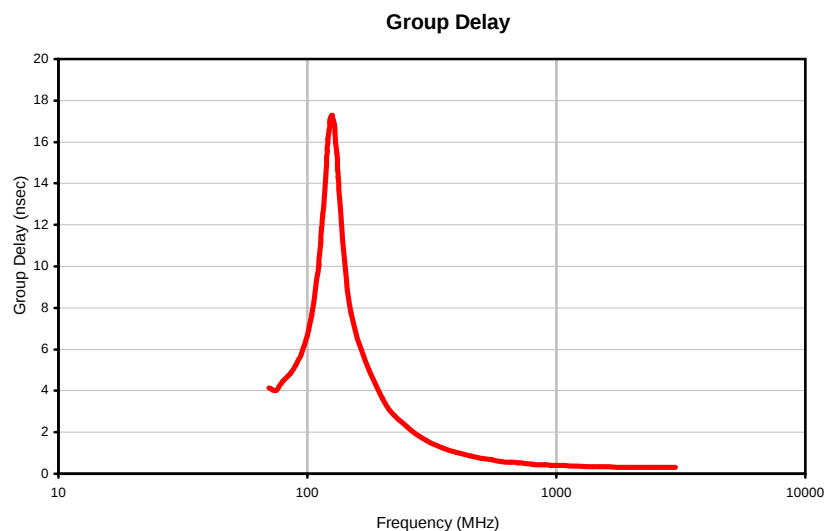
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Typical Performance Curves



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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.

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