

Coaxial

High Pass Filter

50Ω 160 to 1200 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-175+ NHP-175



Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors	Model
N-Type	NHP-175(+)

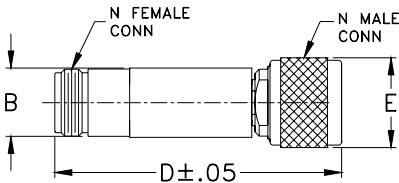
+RoHS Compliant

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-70	70-105	140	160-1200	17	1.5

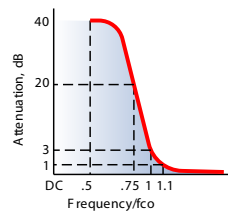
Outline Drawing



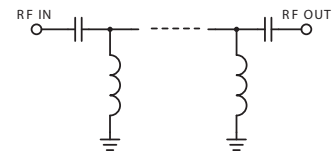
Outline Dimensions (inch/mm)

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

typical frequency response

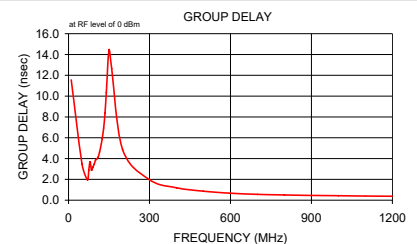
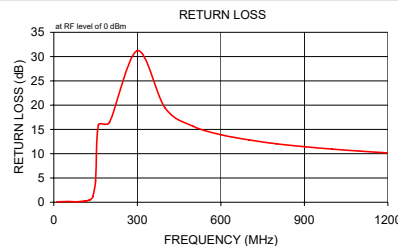
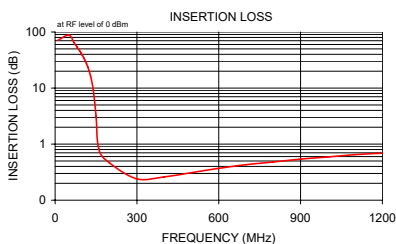


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) $\bar{x}$	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	71.26	4.82	0.08	10.00	11.56
50.00	88.13	7.75	0.15	50.00	3.48
70.00	64.08	0.60	0.11	70.00	1.95
75.00	59.06	0.35	0.09	75.00	2.87
80.00	54.47	0.39	0.09	80.00	3.70
85.00	50.30	0.30	0.11	85.00	2.88
90.00	46.22	0.36	0.12	90.00	3.16
95.00	42.26	0.37	0.15	95.00	3.46
100.00	38.41	0.38	0.16	100.00	3.85
105.00	34.67	0.41	0.20	105.00	3.98
110.00	30.99	0.41	0.23	110.00	4.15
115.00	27.32	0.43	0.27	115.00	4.63
120.00	23.70	0.45	0.33	120.00	5.22
125.00	20.06	0.46	0.39	125.00	5.93
130.00	16.41	0.48	0.50	130.00	6.93
135.00	12.76	0.49	0.71	135.00	8.35
140.00	9.17	0.47	1.17	140.00	10.35
150.00	3.19	0.29	4.33	150.00	14.46
160.00	0.82	0.05	15.90	160.00	12.65
200.00	0.46	0.04	16.46	200.00	4.88
300.00	0.24	0.01	31.22	300.00	1.97
400.00	0.26	0.01	19.40	400.00	1.19
500.00	0.31	0.01	15.65	500.00	0.86
600.00	0.37	0.01	13.91	600.00	0.67
700.00	0.43	0.01	12.85	700.00	0.56
800.00	0.48	0.01	12.04	800.00	0.50
900.00	0.54	0.01	11.44	900.00	0.46
1000.00	0.59	0.01	10.95	1000.00	0.43
1100.00	0.65	0.01	10.53	1100.00	0.40
1200.00	0.69	0.02	10.16	1200.00	0.38



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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 REV. C
 M151107
 NHP-175
 200515

Coaxial High Pass Filter

NHP-175

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	71.26	0.08	10.0	11.560
50.0	88.13	0.15	50.0	3.480
70.0	64.08	0.11	70.0	1.950
80.0	54.47	0.09	80.0	3.700
85.0	50.30	0.11	85.0	2.880
90.0	46.22	0.12	90.0	3.160
100.0	38.41	0.16	100.0	3.850
105.0	34.67	0.20	105.0	3.980
110.0	30.99	0.23	110.0	4.150
115.0	27.32	0.27	115.0	4.630
120.0	23.70	0.33	120.0	5.220
125.0	20.06	0.39	125.0	5.930
130.0	16.41	0.50	130.0	6.930
135.0	12.76	0.71	135.0	8.350
140.0	9.17	1.17	140.0	10.350
145.0	5.85	2.17	145.0	12.710
150.0	3.19	4.33	150.0	14.460
155.0	1.55	8.48	155.0	14.380
160.0	0.82	15.90	160.0	12.650
175.0	0.60	15.71	175.0	7.580
200.0	0.46	16.46	200.0	4.880
250.0	0.27	31.80	250.0	2.870
300.0	0.24	31.22	300.0	1.970
350.0	0.24	23.54	350.0	1.490
400.0	0.26	19.40	400.0	1.190
450.0	0.29	17.08	450.0	0.990
500.0	0.31	15.65	500.0	0.860
550.0	0.35	14.64	550.0	0.760
600.0	0.37	13.91	600.0	0.670
650.0	0.41	13.32	650.0	0.610
700.0	0.43	12.85	700.0	0.560
750.0	0.46	12.39	750.0	0.530
800.0	0.48	12.04	800.0	0.500
850.0	0.51	11.72	850.0	0.470
900.0	0.54	11.44	900.0	0.460
950.0	0.57	11.19	950.0	0.430
1000.0	0.59	10.95	1000.0	0.430
1050.0	0.61	10.73	1050.0	0.410
1100.0	0.65	10.53	1100.0	0.400
1150.0	0.67	10.35	1150.0	0.400
1200.0	0.69	10.16	1200.0	0.380
1250.0	0.72	10.03	1250.0	0.370
1300.0	0.75	9.89	1300.0	0.370
1350.0	0.76	9.74	1350.0	0.360
1400.0	0.78	9.64	1400.0	0.360
1450.0	0.80	9.52	1450.0	0.350
1500.0	0.82	9.45	1500.0	0.340
1550.0	0.85	9.36	1550.0	0.340
1600.0	0.86	9.31	1600.0	0.340
1650.0	0.86	9.24	1650.0	0.340
1700.0	0.88	9.21	1700.0	0.330
1750.0	0.89	9.17	1750.0	0.330
2000.0	0.91	9.26	2000.0	0.320
2500.0	0.86	10.25	2500.0	0.320
3000.0	0.72	12.71	3000.0	0.320

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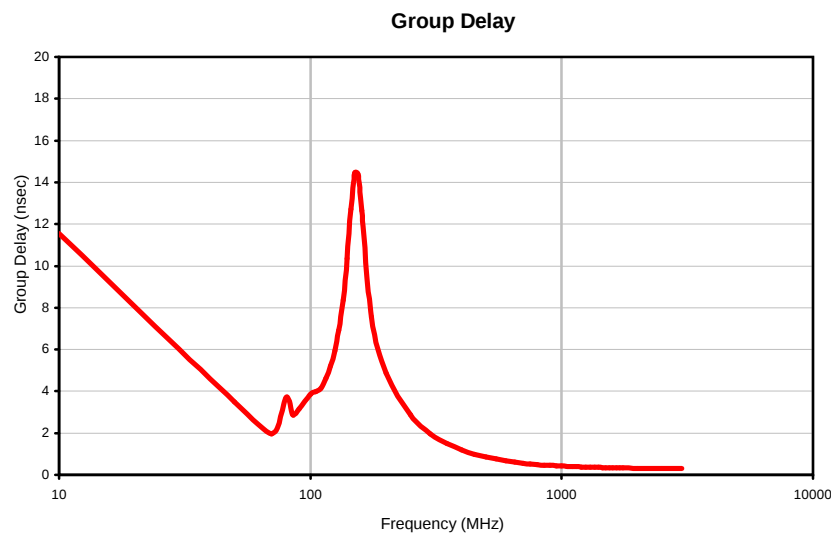
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Typical Performance Curves



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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