

Coaxial High Pass Filter

50Ω 500 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-500+
NHP-500



CASE STYLE: FF57

Connectors Model
N-Type NHP-500(+)

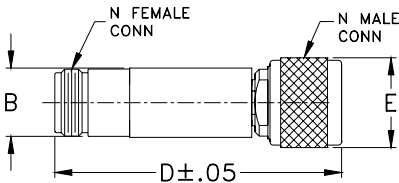
+RoHS Compliant

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 < 1 dB)	Stopband Typ. Passband Typ.
DC-280	280-365	454	17 1.9

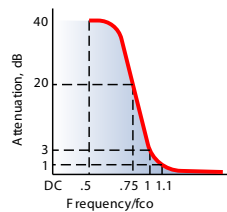
Outline Drawing



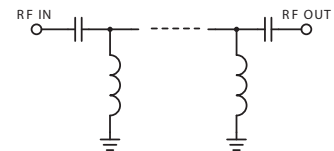
Outline Dimensions (inch/mm)

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

typical frequency response

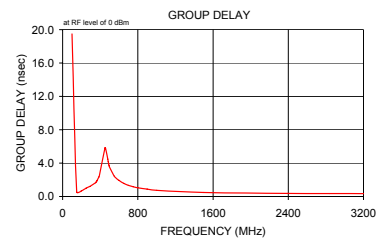
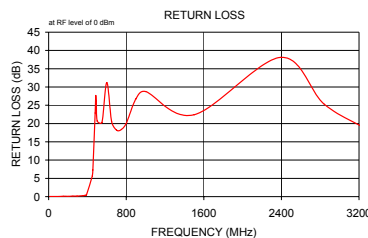
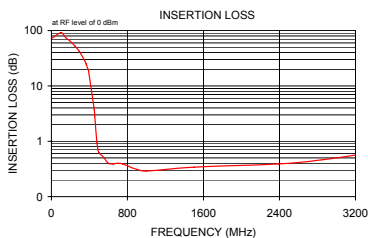


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
$\bar{x}$	σ			
10.00	73.03	4.97	100.00	19.48
100.00	91.45	6.05	150.00	0.55
150.00	74.69	0.45	200.00	0.67
200.00	63.66	0.50	250.00	0.99
250.00	52.21	0.65	290.00	1.21
290.00	42.87	0.80	297.00	1.26
297.00	41.24	0.83	350.00	1.66
350.00	28.65	1.12	355.00	1.72
355.00	27.43	1.15	365.00	1.88
365.00	24.98	1.21	385.00	2.33
385.00	19.93	1.36	390.00	2.49
390.00	18.64	1.40	451.00	5.83
451.00	3.67	1.22	456.00	5.80
456.00	2.88	1.04	480.00	4.48
480.00	0.93	0.26	485.00	4.18
485.00	0.80	0.17	490.00	3.92
490.00	0.71	0.11	495.00	3.68
500.00	0.62	0.04	500.00	3.48
550.00	0.51	0.02	550.00	2.43
600.00	0.40	0.01	600.00	1.92
650.00	0.39	0.00	650.00	1.57
700.00	0.40	0.01	700.00	1.33
750.00	0.39	0.01	750.00	1.17
800.00	0.36	0.01	800.00	1.05
900.00	0.31	0.01	900.00	0.88
1000.00	0.29	0.01	1000.00	0.74
1500.00	0.34	0.00	1500.00	0.48
2390.00	0.39	0.01	2390.00	0.37
2840.00	0.46	0.01	2840.00	0.35
3280.00	0.59	0.01	3280.00	0.33



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



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REV. C
M151107
NHP-500
150917

Coaxial High Pass Filter

NHP-500+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	73.03	0.04	100.0	19.480
100.0	91.45	0.05	150.0	0.550
150.0	74.69	0.11	200.0	0.670
200.0	63.66	0.07	250.0	0.990
250.0	52.21	0.13	290.0	1.210
290.0	42.87	0.14	297.0	1.260
297.0	41.24	0.14	305.0	1.250
305.0	39.36	0.15	350.0	1.660
350.0	28.65	0.25	355.0	1.720
355.0	27.43	0.26	360.0	1.790
360.0	26.21	0.27	365.0	1.880
365.0	24.98	0.29	370.0	1.970
370.0	23.73	0.31	375.0	2.070
375.0	22.47	0.33	380.0	2.190
380.0	21.21	0.35	385.0	2.330
385.0	19.93	0.39	390.0	2.490
390.0	18.64	0.44	412.0	3.400
412.0	12.92	0.81	414.0	3.540
414.0	12.39	0.88	416.0	3.700
416.0	11.86	0.95	418.0	3.830
418.0	11.33	1.04	420.0	3.970
420.0	10.81	1.14	422.0	4.110
422.0	10.28	1.25	424.0	4.260
424.0	9.77	1.37	426.0	4.410
426.0	9.25	1.51	428.0	4.570
428.0	8.74	1.67	430.0	4.720
430.0	8.23	1.85	442.0	5.460
442.0	5.43	3.54	446.0	5.710
446.0	4.60	4.37	451.0	5.830
451.0	3.67	5.67	456.0	5.800
456.0	2.88	7.30	461.0	5.640
461.0	2.24	9.33	466.0	5.390
466.0	1.73	11.83	471.0	5.070
475.0	1.13	18.01	475.0	4.810
480.0	0.93	22.88	480.0	4.480
485.0	0.80	27.62	485.0	4.180
490.0	0.71	26.06	490.0	3.920
495.0	0.66	22.82	495.0	3.680
500.0	0.62	20.70	500.0	3.480
550.0	0.51	20.30	550.0	2.430
600.0	0.40	31.22	600.0	1.920
650.0	0.39	20.55	650.0	1.570
700.0	0.40	18.20	700.0	1.330
750.0	0.39	18.39	750.0	1.170
800.0	0.36	20.02	800.0	1.050
850.0	0.33	22.82	850.0	0.950
900.0	0.31	26.73	900.0	0.880
950.0	0.30	30.22	950.0	0.800
1000.0	0.29	28.75	1000.0	0.740
1500.0	0.34	22.42	1500.0	0.480
1940.0	0.35	30.48	1940.0	0.410
2390.0	0.39	38.09	2390.0	0.370
2840.0	0.46	25.35	2840.0	0.350
3280.0	0.59	18.45	3280.0	0.330

REV. X1
NHP-500+
070628
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IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

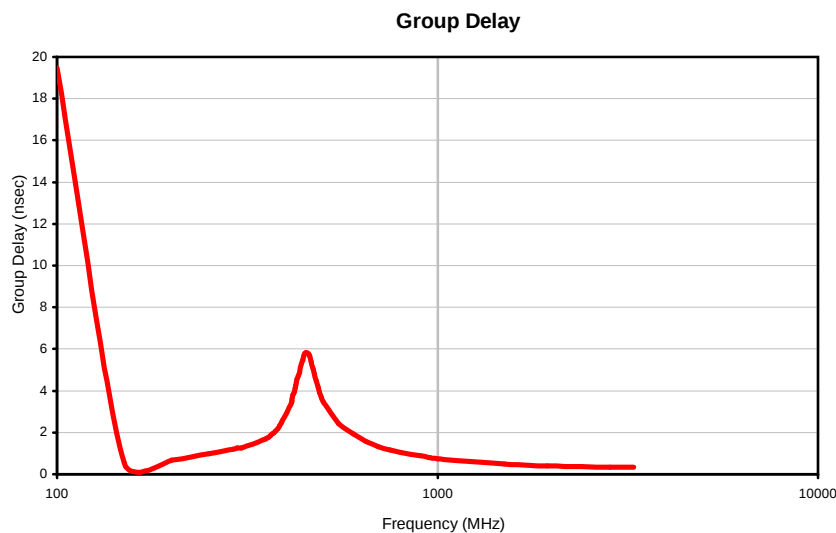
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Typical Performance Curves



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NHP-500+
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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