

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(+)

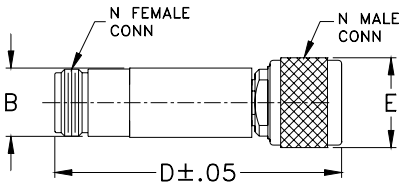
+RoHS Compliant

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 3 dB)	(loss < 1 dB)	Stopband Typ. Passband Typ.
DC-210	210-290	360	395-3200 17 1.7

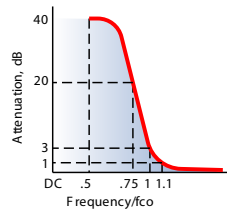
Outline Drawing



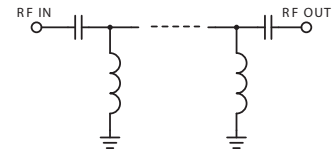
Outline Dimensions (inch)

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

typical frequency response

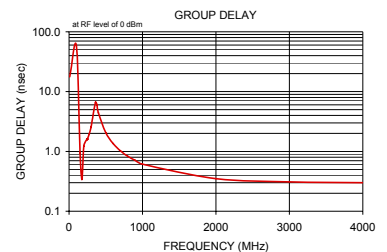
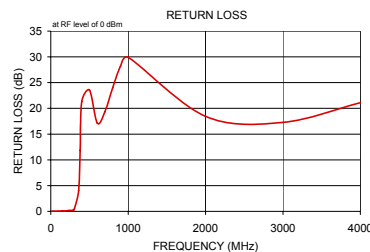
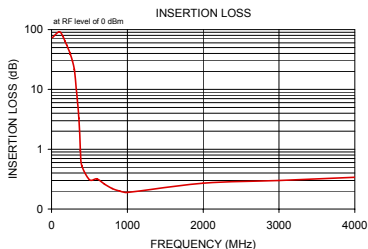


electrical schematic



Typical Performance Data

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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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+
061116
Page 1 of 1



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



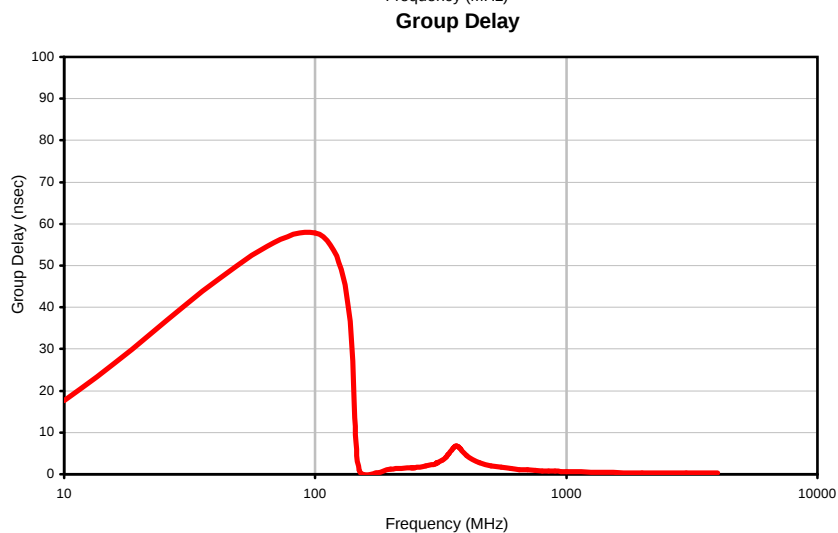
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



Coaxial High Pass Filter

Typical Performance Curves

NHP-400+



Mini-Circuits®

IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



REV. X1
NHP-400+
061116
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