

Coaxial High Pass Filter

NHP-700+ NHP-700

50Ω 700 to 3000 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.



CASE STYLE: FF57
Connectors Model
N-Type NHP-700(+)

Features

- rugged shielded case
- other standard and custom NHP models available with wide selection of fco

Applications

- lab use
- transmitters/receivers
- radio communications

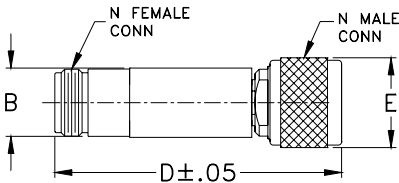
+RoHS Compliant

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 < 1 dB)	Stopband Typ. Passband Typ.
DC-400	400-520	640	17- 1.6

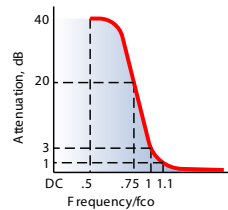
Outline Drawing



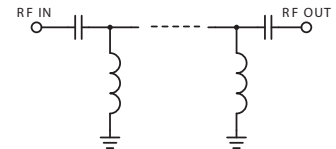
Outline Dimensions (inch/mm)

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

typical frequency response

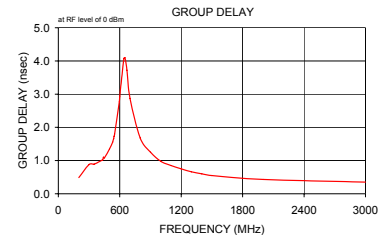
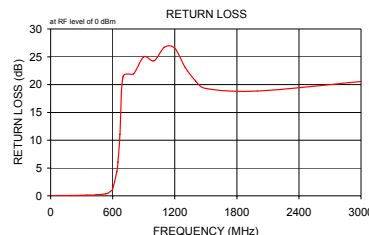
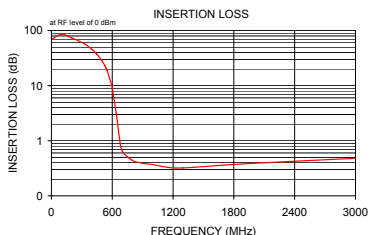


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) \bar{x}	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	71.13	3.73	0.05	200.00	0.49
100.00	86.10	2.60	0.05	300.00	0.88
200.00	73.72	0.25	0.07	350.00	0.89
300.00	60.72	0.42	0.10	400.00	0.97
350.00	53.62	0.27	0.15	425.00	1.01
400.00	45.60	0.35	0.15	433.00	1.02
425.00	41.41	0.44	0.12	441.00	1.10
441.00	38.65	0.51	0.20	450.00	1.08
450.00	37.09	0.54	0.22	500.00	1.35
500.00	28.11	0.74	0.26	530.00	1.55
530.00	22.58	0.88	0.36	535.00	1.61
540.00	20.70	0.93	0.40	540.00	1.66
545.00	19.75	0.96	0.42	545.00	1.73
550.00	18.80	0.98	0.44	550.00	1.80
595.00	10.16	1.20	1.01	595.00	2.77
600.00	9.24	1.21	1.17	600.00	2.92
640.00	3.13	0.83	4.36	640.00	4.07
650.00	2.21	0.63	6.07	650.00	4.10
670.00	1.15	0.28	11.07	670.00	3.72
700.00	0.65	0.04	21.39	700.00	2.87
800.00	0.44	0.01	21.92	800.00	1.68
900.00	0.39	0.02	24.99	900.00	1.25
1000.00	0.37	0.02	24.30	1000.00	0.98
1100.00	0.34	0.01	26.73	1100.00	0.85
1200.00	0.32	0.01	26.52	1200.00	0.75
1300.00	0.32	0.01	23.09	1300.00	0.66
1400.00	0.33	0.02	20.67	1400.00	0.60
1500.00	0.34	0.02	19.29	1500.00	0.55
2000.00	0.39	0.02	18.85	2000.00	0.43
3000.00	0.48	0.02	20.55	3000.00	0.35



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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NHP-700+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	71.13	0.05	200.0	0.490
100.0	86.10	0.05	300.0	0.880
200.0	73.72	0.07	350.0	0.890
300.0	60.72	0.10	400.0	0.970
350.0	53.62	0.15	425.0	1.010
400.0	45.60	0.15	433.0	1.020
425.0	41.41	0.12	441.0	1.100
433.0	40.02	0.13	450.0	1.080
441.0	38.65	0.20	500.0	1.350
450.0	37.09	0.22	530.0	1.550
500.0	28.11	0.26	535.0	1.610
530.0	22.58	0.36	540.0	1.660
535.0	21.64	0.38	545.0	1.730
540.0	20.70	0.40	550.0	1.800
545.0	19.75	0.42	580.0	2.380
550.0	18.80	0.44	585.0	2.500
580.0	13.02	0.70	590.0	2.630
585.0	12.06	0.78	595.0	2.770
590.0	11.10	0.88	600.0	2.920
595.0	10.16	1.01	605.0	3.070
600.0	9.24	1.17	620.0	3.570
605.0	8.33	1.35	625.0	3.720
620.0	5.79	2.20	630.0	3.870
625.0	5.03	2.61	635.0	3.990
630.0	4.33	3.09	640.0	4.070
635.0	3.69	3.67	645.0	4.110
640.0	3.13	4.36	650.0	4.100
645.0	2.63	5.15	655.0	4.050
650.0	2.21	6.07	660.0	3.970
655.0	1.86	7.12	665.0	3.850
660.0	1.57	8.30	670.0	3.720
670.0	1.15	11.07	675.0	3.570
680.0	0.89	14.38	680.0	3.420
700.0	0.65	21.39	700.0	2.870
750.0	0.51	20.03	750.0	2.060
800.0	0.44	21.92	800.0	1.680
850.0	0.40	25.07	850.0	1.430
900.0	0.39	24.99	900.0	1.250
950.0	0.39	24.13	950.0	1.110
1000.0	0.37	24.30	1000.0	0.980
1050.0	0.36	25.32	1050.0	0.920
1100.0	0.34	26.73	1100.0	0.850
1150.0	0.33	27.25	1150.0	0.800
1200.0	0.32	26.52	1200.0	0.750
1250.0	0.32	24.63	1250.0	0.700
1300.0	0.32	23.09	1300.0	0.660
1350.0	0.33	21.69	1350.0	0.630
1400.0	0.33	20.67	1400.0	0.600
1450.0	0.33	19.84	1450.0	0.580
1500.0	0.34	19.29	1500.0	0.550
2000.0	0.39	18.85	2000.0	0.430
2500.0	0.40	21.19	2500.0	0.380
3000.0	0.48	20.55	3000.0	0.350

REV. X1
NHP-700+
070628
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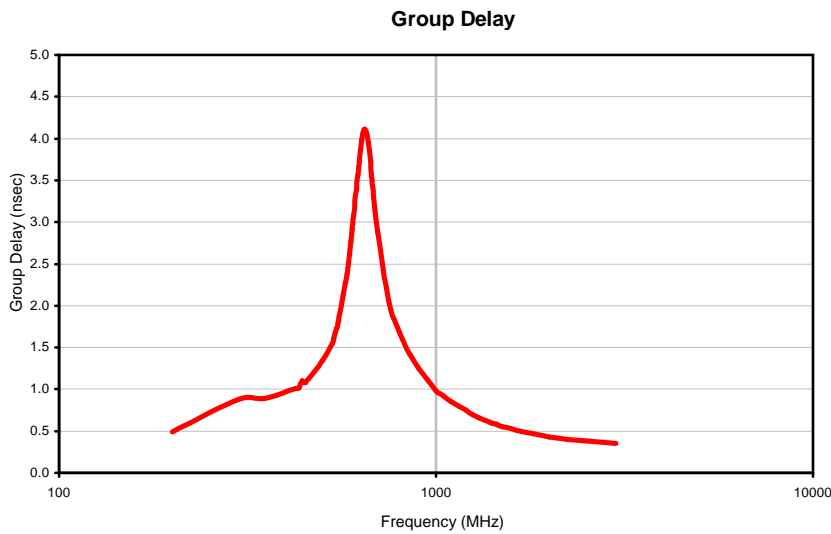
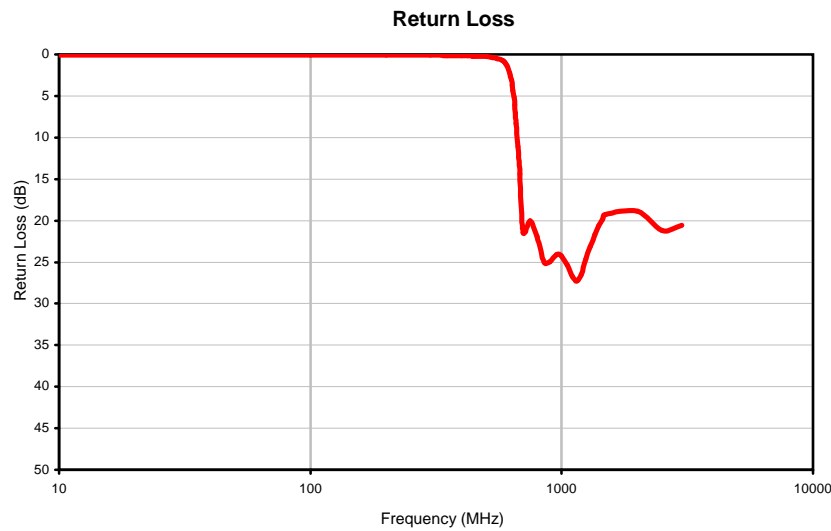
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Typical Performance Curves



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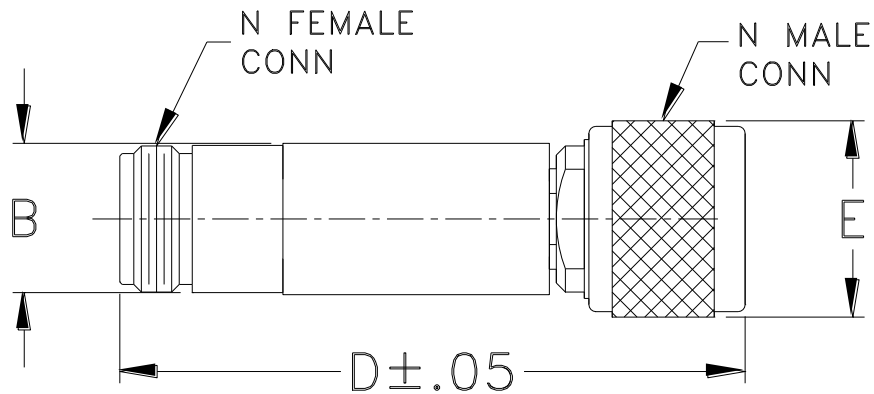
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Outline Dimensions



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