

Coaxial

Low Pass Filter

50Ω DC to 225 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 NLP models available with wide selection of cut-off frequencies

Applications

- lab use
- test equipment
- video equipment

NLP-250+
NLP-250


Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors Model

N-Type NLP-250(+)

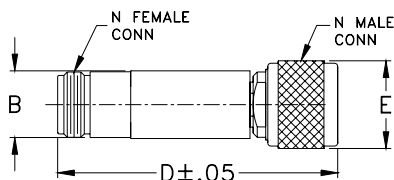
+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-225	250	320-400	400-1200	1.7	18

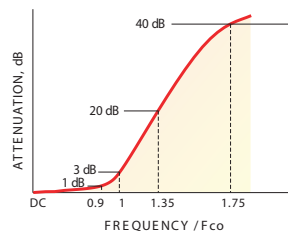
Outline Drawing



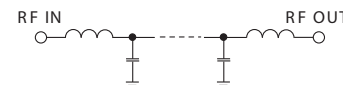
Outline Dimensions (inch/mm)

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

typical frequency response

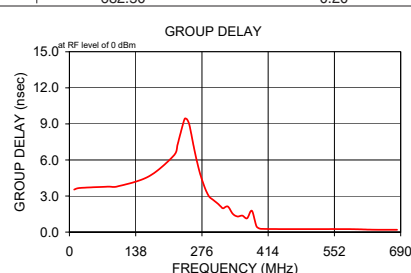
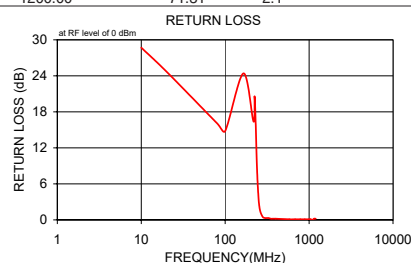


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ		
10.00	0.03	0.1	10.00	3.54
20.00	0.03	0.1	20.00	3.66
80.00	0.20	0.1	80.00	3.78
100.00	0.28	0.1	100.00	3.80
165.00	0.27	0.1	165.00	4.63
217.50	0.60	0.1	217.50	6.37
225.00	0.64	0.1	225.00	7.25
240.00	1.59	0.3	230.00	8.00
250.00	3.87	0.6	240.00	9.42
260.00	7.27	0.9	245.00	9.37
280.00	14.62	1.0	250.00	8.91
300.00	21.27	1.1	260.00	6.90
310.00	24.28	1.2	270.00	5.18
315.00	25.71	1.2	280.00	3.91
320.00	27.12	1.3	290.00	3.02
330.00	29.77	1.3	300.00	2.66
350.00	34.87	1.6	310.00	2.33
370.00	39.35	1.9	315.00	2.14
380.00	41.63	2.0	320.00	1.98
390.00	43.91	2.3	330.00	2.13
400.00	46.09	2.7	340.00	1.53
580.00	69.80	3.0	350.00	1.30
682.50	69.02	1.5	360.00	1.37
785.00	69.27	2.4	370.00	1.15
890.00	69.72	4.5	380.00	1.78
992.50	70.16	5.1	390.00	0.46
1045.00	73.29	6.6	400.00	0.27
1097.50	70.40	5.6	580.00	0.25
1147.50	71.08	3.9	630.00	0.20
1200.00	71.31	2.1	682.50	0.20



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. B
 M151107
 NLP-250
 200515

Coaxial Low Pass Filter

NLP-250+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.05	40.82	10.0	3.990
50.0	0.10	36.65	50.0	3.640
100.0	0.22	20.91	100.0	3.860
150.0	0.28	19.04	150.0	4.340
200.0	0.35	24.20	200.0	5.540
210.0	0.40	24.17	210.0	6.060
220.0	0.48	20.40	220.0	6.920
230.0	0.79	12.57	230.0	8.040
240.0	1.81	6.70	240.0	8.790
255.0	5.48	2.25	255.0	7.430
260.0	7.12	1.59	260.0	6.630
265.0	8.86	1.17	265.0	5.820
275.0	12.40	0.72	274.0	4.620
280.0	14.13	0.60	275.0	4.510
285.0	15.83	0.53	280.0	4.000
290.0	17.47	0.48	285.0	3.580
295.0	19.07	0.43	290.0	3.220
298.0	20.00	0.42	295.0	2.940
299.0	20.31	0.41	298.0	2.790
304.0	21.82	0.39	299.0	2.740
305.0	22.11	0.38	305.0	2.510
325.0	27.70	0.30	325.0	1.910
358.0	35.83	0.25	341.0	1.600
375.0	39.64	0.25	358.0	1.440
376.0	39.81	0.25	375.0	1.220
377.0	40.06	0.25	376.0	1.170
384.0	41.55	0.25	377.0	1.200
385.0	41.72	0.25	384.0	1.180
500.0	62.85	0.20	385.0	1.170
1000.0	86.44	0.14	500.0	0.530
1500.0	81.39	0.21	1000.0	0.430
2000.0	71.68	0.28	1500.0	0.260
2500.0	77.94	0.27	2000.0	0.230
3000.0	54.63	0.29	3000.0	0.440

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NLP-250+
060925
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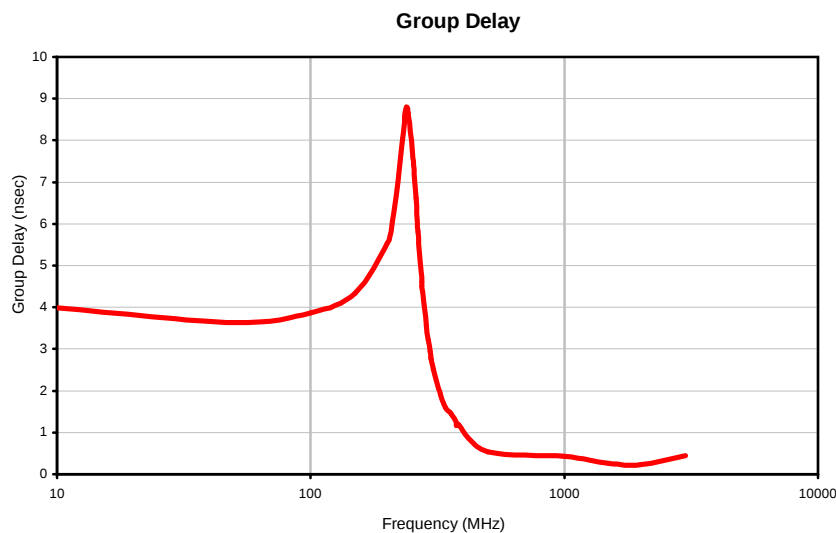
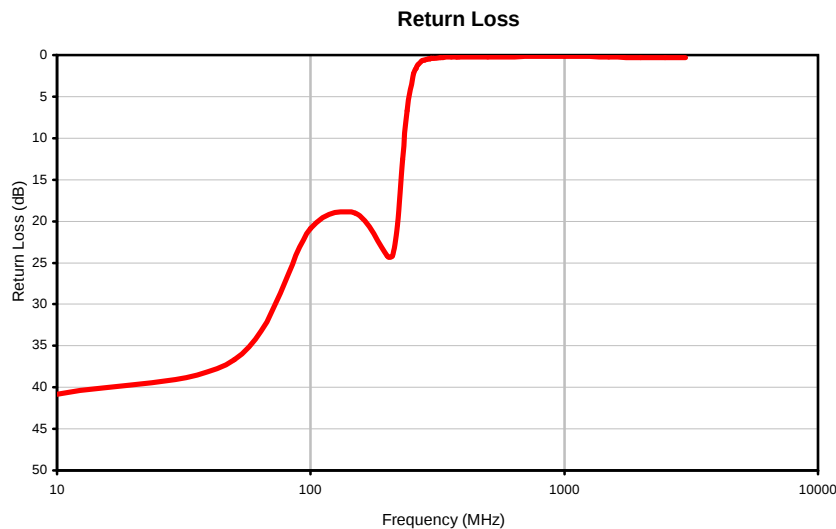


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Typical Performance Curves



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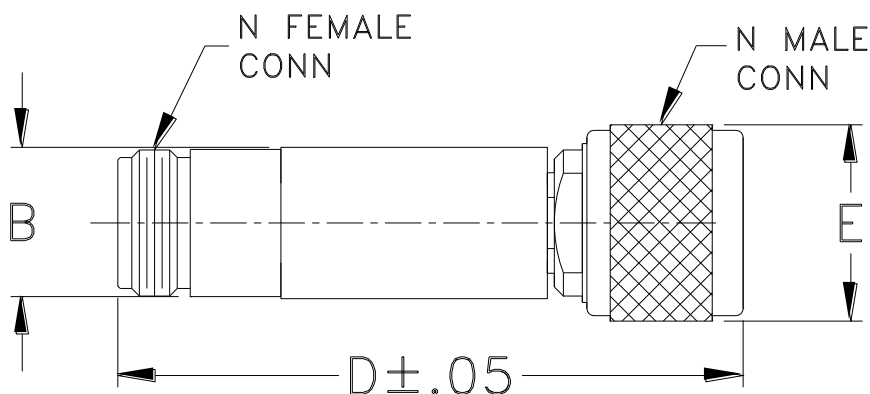


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NLP-250+
060925
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Outline Dimensions



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