

Low Pass Filter

50Ω DC to 1500 MHz

NLP-1750+



Generic photo used for illustration purposes only

CASE STYLE: FF57
Connectors Model
N-Type NLP-1750+

Features

- Rugged shielded case
- Other NLP models available with wide selection of cut-off frequencies

Applications

- Lab use
- Test equipment
- Video equipment

Electrical Specifications at 25°C

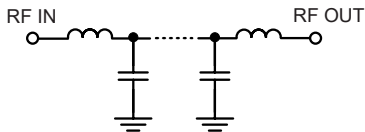
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC - 1500	—	—	1.0	dB
	Freq. Cut-off	F2	1750	—	3	—	dB
	VSWR	DC-F1	DC - 1500	—	1.3	—	:1
Stop Band	Rejection Loss	F3-F4	2400 - 3000	20	—	—	dB
		F4-F5	3000 - 6000	40	—	—	dB

Maximum Ratings²

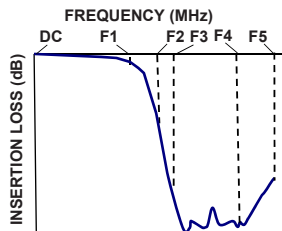
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

Functional Schematic



Typical Frequency Response

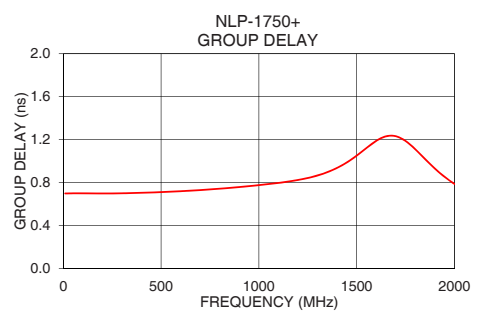
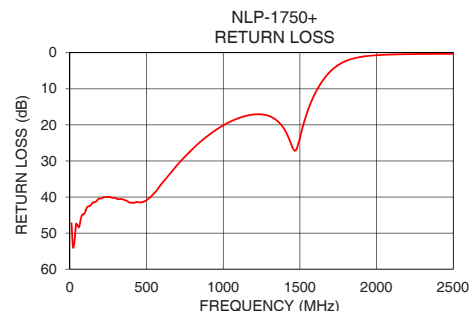
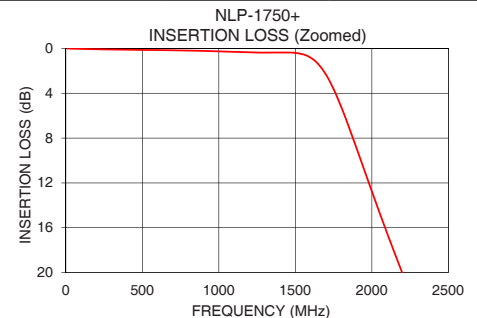
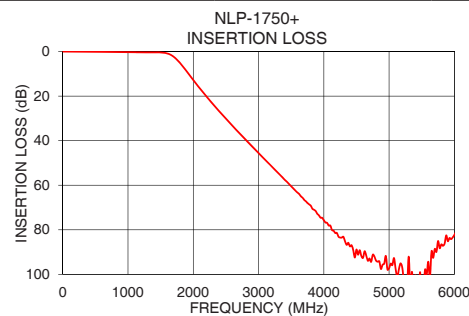


+RoHS Compliant

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

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10	0.01	47.28	10	0.70
50	0.03	47.87	50	0.70
100	0.04	44.07	100	0.70
500	0.13	40.85	200	0.70
1000	0.26	20.12	300	0.70
1500	0.40	23.56	400	0.70
1600	0.83	11.19	500	0.71
1750	3.63	3.39	600	0.72
2000	12.75	0.67	700	0.73
2200	20.09	0.38	800	0.74
2400	26.88	0.31	900	0.76
2500	30.13	0.29	1000	0.78
3000	45.57	0.27	1100	0.80
3500	60.44	0.24	1150	0.81
3800	69.18	0.21	1200	0.82
4000	75.72	0.19	1250	0.84
4500	88.88	0.17	1300	0.87
5000	97.25	0.18	1350	0.90
5500	114.05	0.20	1400	0.94
6000	82.30	0.22	1500	1.05



Notes

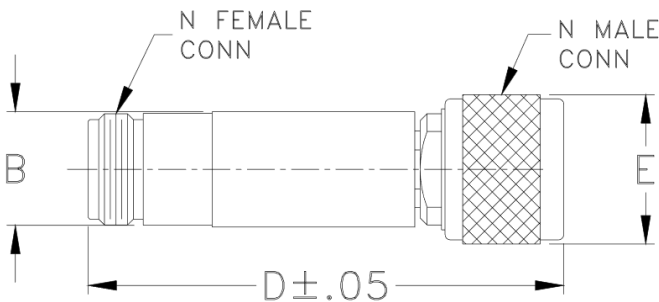
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Coaxial Connections

INPUT	N-Male
OUTPUT	N-Female

Outline Drawing



Outline Dimensions (^{inch}_{mm})

B	D	E	wt
.70	2.90	.82	grams
17.78	73.66	20.83	90.0

Note: Please refer to case style drawing for details

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Coaxial Low Pass Filter

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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.01	54.57	10.0	0.670
83.2	0.03	44.01	83.2	0.630
156.3	0.04	41.59	156.3	0.620
302.6	0.07	42.96	302.6	0.630
448.9	0.09	46.71	448.9	0.640
522.1	0.10	39.86	522.1	0.640
668.4	0.11	31.98	668.4	0.650
814.7	0.14	27.73	814.7	0.670
961.1	0.17	24.86	961.1	0.700
1034.2	0.17	23.60	1034.2	0.730
1107.4	0.19	22.24	1107.4	0.750
1253.7	0.25	18.78	1253.7	0.810
1326.8	0.31	16.60	1326.8	0.840
1400.0	0.42	14.05	1400.0	0.880
1650.0	2.45	4.55	1650.0	1.090
2300.0	25.15	0.18	2300.0	0.520
2600.0	34.79	0.13	2600.0	0.420
2900.0	43.62	0.12	2900.0	0.390
4450.0	74.07	0.14	4450.0	0.330
6000.0	67.71	0.12	6000.0	0.350

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070530
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Patent Pending

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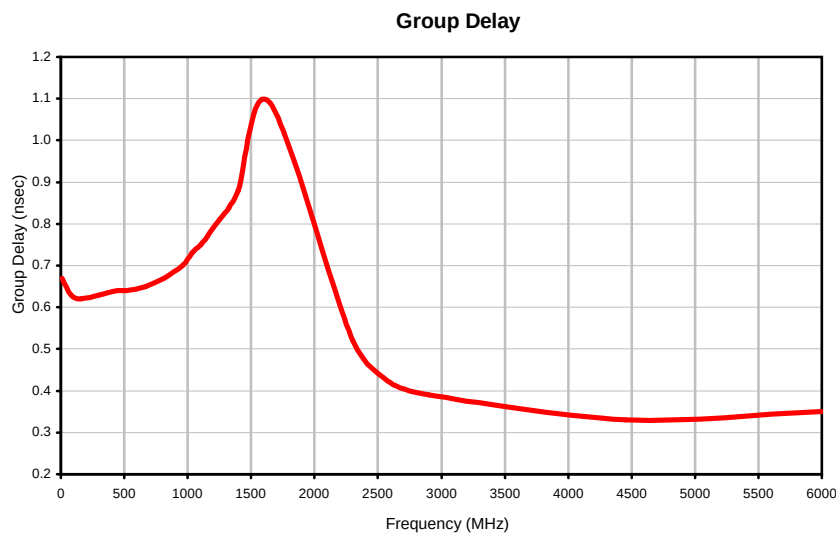
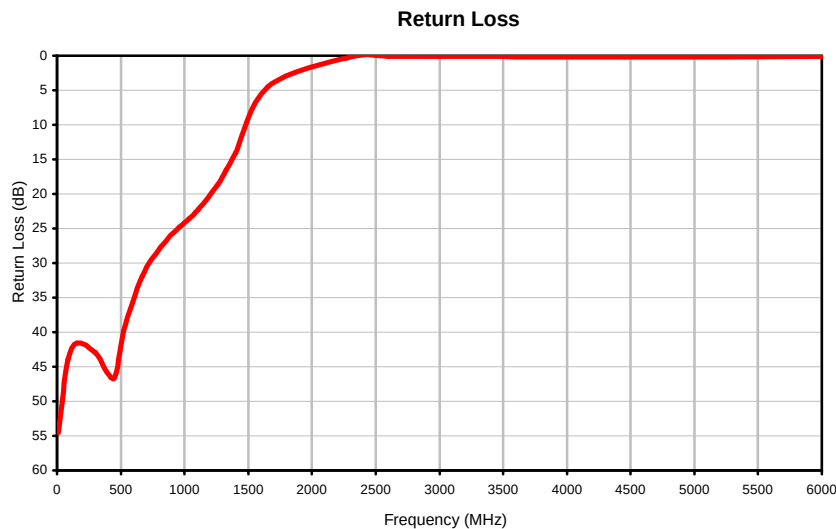
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Typical Performance Curves



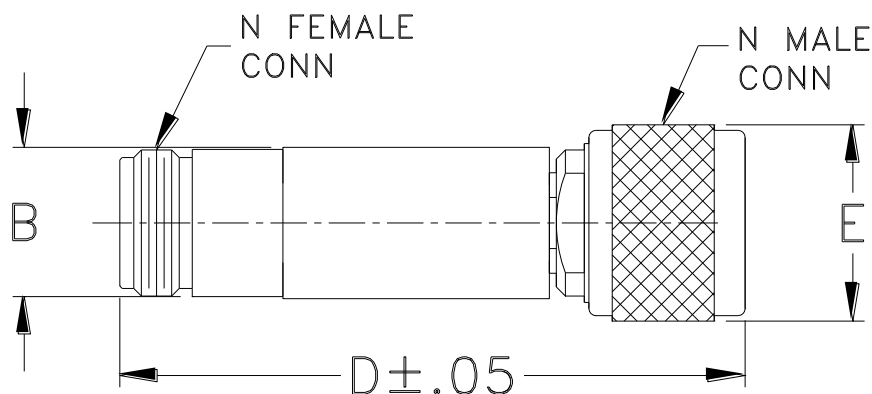
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Outline Dimensions



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