Coaxial

Low Pass Filter

NLP-2950+

50Ω DC to 2700 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

Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors	Model
N-Type	NLP-2950+

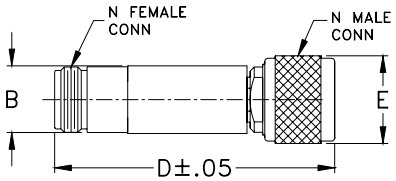
+RoHS Compliant

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

Low Pass Filter Electrical Specifications

PASSBAND (MHz) (loss < 1 dB)	fco (MHz) Nom. (loss 3 dB)	STOPBAND (MHz) (loss > 20 dB)	STOPBAND (MHz) (loss > 40 dB)	VSWR (:1) Passband Typ.	VSWR (:1) Stopband Typ.
DC-2700	2950	3700-4500	4500-6000	1.3	18

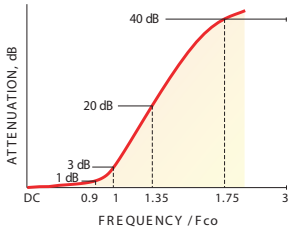
Outline Drawing



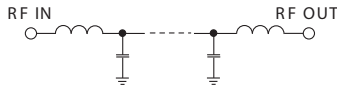
Outline Dimensions (inch / mm)

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

typical frequency response



electrical schematic

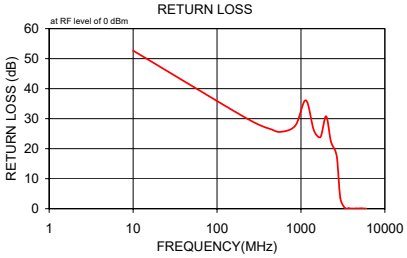


Typical Performance Data

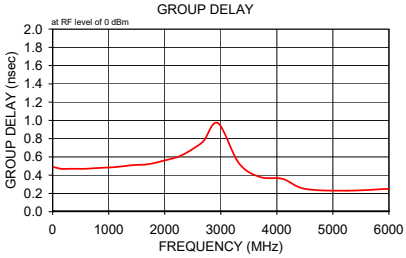
Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	0.01	0.00	52.68	10.00	0.49
151.57	0.04	0.00	32.88	151.57	0.47
293.15	0.07	0.00	28.39	293.15	0.47
434.73	0.09	0.01	26.51	434.73	0.47
576.31	0.10	0.01	25.60	576.31	0.47
859.47	0.12	0.01	27.73	859.47	0.48
1142.63	0.14	0.01	36.13	1142.63	0.49
1425.78	0.19	0.02	26.10	1425.78	0.51
1708.94	0.21	0.02	23.87	1708.94	0.52
1992.10	0.23	0.01	30.78	1992.10	0.56
2275.26	0.30	0.02	22.41	2275.26	0.61
2558.42	0.41	0.04	19.38	2558.42	0.71
2700.00	0.58	0.12	16.56	2700.00	0.78
2950.00	3.40	0.95	3.51	2950.00	0.97
3325.00	15.26	1.29	0.29	3325.00	0.53
3700.00	26.05	1.34	0.14	3700.00	0.38
4100.00	35.49	1.43	0.03	4100.00	0.36
4500.00	43.92	1.60	0.07	4500.00	0.25
5250.00	56.88	1.91	0.10	5250.00	0.23
6000.00	65.29	2.87	0.03	6000.00	0.25

INSERTION LOSS

RETURN LOSS



GROUP DELAY



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

Coaxial Low Pass Filter NLP-2950+

Typical Performance Data

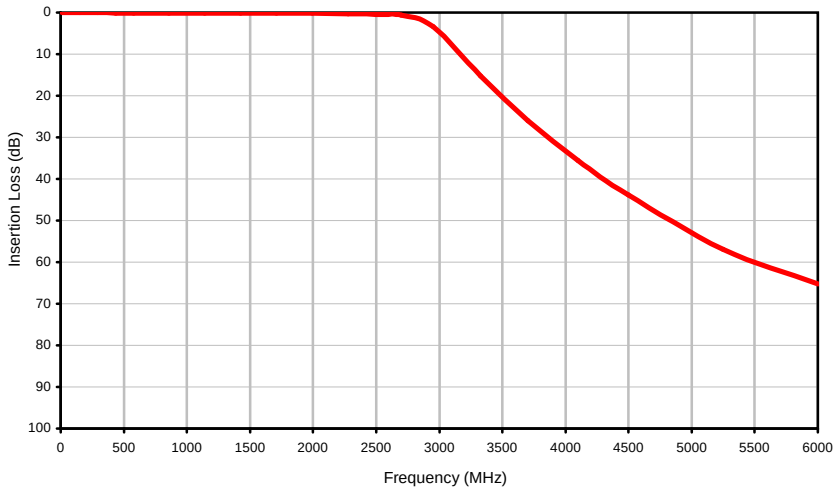
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.0	0.01	52.68
151.6	0.04	32.88
293.2	0.07	28.39
434.7	0.09	26.51
576.3	0.10	25.60
859.5	0.12	27.73
1142.6	0.14	36.13
1425.8	0.19	26.10
1708.9	0.21	23.87
1992.1	0.23	30.78
2275.3	0.30	22.41
2558.4	0.41	19.38
2700.0	0.58	16.56
2950.0	3.40	3.51
3325.0	15.26	0.29
3700.0	26.05	0.14
4100.0	35.49	0.03
4500.0	43.92	0.07
5250.0	56.88	0.10
6000.0	65.29	0.03

FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.490
151.6	0.470
293.2	0.470
434.7	0.470
576.3	0.470
859.5	0.480
1142.6	0.490
1425.8	0.510
1708.9	0.520
1992.1	0.560
2275.3	0.610
2558.4	0.710
2700.0	0.780
2950.0	0.970
3325.0	0.530
3700.0	0.380
4100.0	0.360
4500.0	0.250
5250.0	0.230
6000.0	0.250

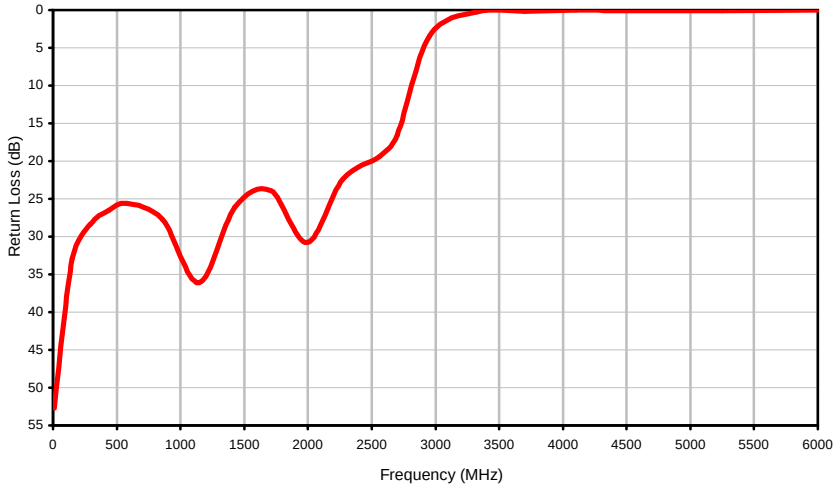
Coaxial Low Pass Filter NLP-2950+

Typical Performance Curves

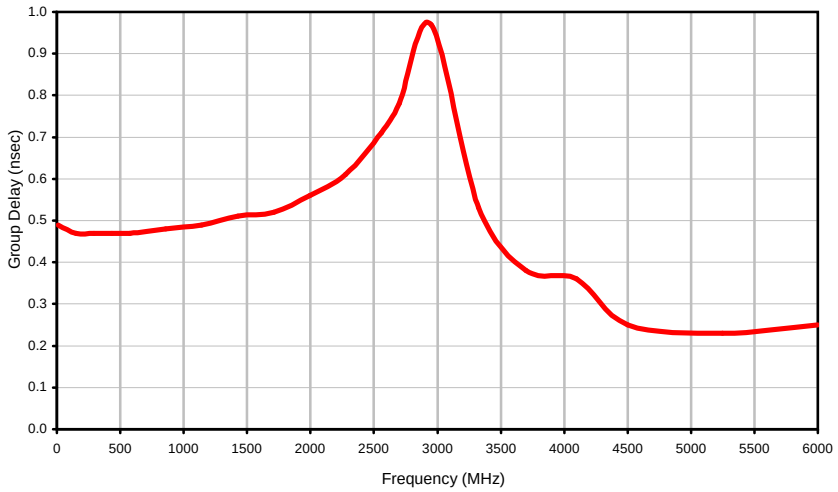
Insertion Loss



Return Loss



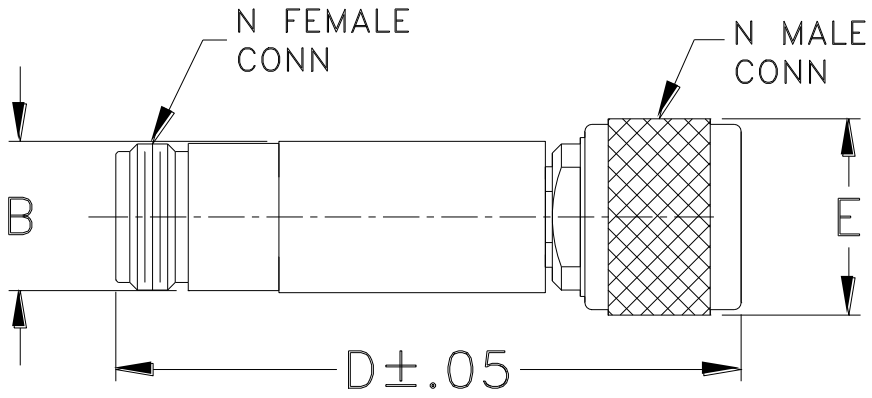
Group Delay



Case Style FF

FF57

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.

Mini-Circuits

Environmental Specifications ENV28

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