

Coaxial Low Pass Filter

NON-CATALOG

NBLP-1870

50Ω Flat Time Delay DC to 850 MHz

Maximum Ratings

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

Features

- flat group delay for low pulse distortion
- rugged shielded case
- other NBLP models available with wide selection of cut-off frequencies

Applications

- linear modulation techniques
- voice transmission applications
- digital communications



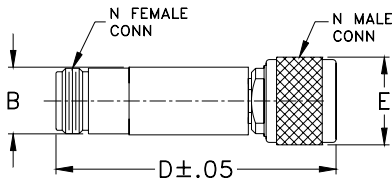
CASE STYLE: FF57

Connectors	Model	Price	Qty.
N-Type	NBLP-1870		Contact Sales Dept.

Low Pass Filter Electrical Specifications

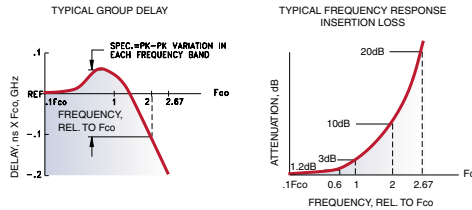
PASSBAND (MHz)	fco, MHz Nom.	STOPBAND (MHz)		VSWR (:1)		GROUP DELAY VARIATION (nsec)		
		(loss > 10 dB)	(loss > 20 dB)	DC-0.2fco	DC-0.6fco	DC-fco	DC-2fco	DC-2.67fco
(loss < 1.2 dB) Min.	(loss 3 dB)			\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}
DC-850	1870	3740-5000	5000	1.45:1	2.9:1	0.05	0.1	0.15

Outline Drawing

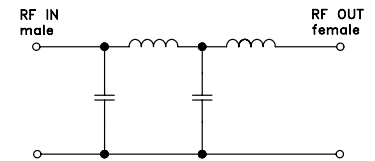


Outline Dimensions (inch/mm)

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

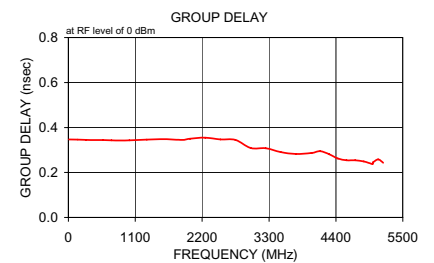
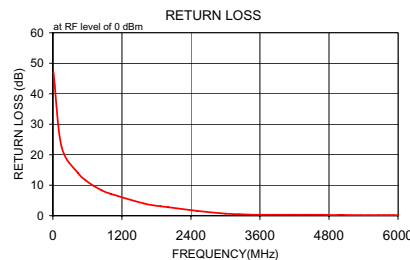


Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{X}	σ			
10.0	0.01	0.1	47.2	10.0	0.347
152.3	0.05	0.1	22.6	152.3	0.346
433.0	0.22	0.1	14.1	290.8	0.345
571.6	0.36	0.1	11.6	433.0	0.344
710.1	0.53	0.1	9.8	571.6	0.344
850.0	0.73	0.1	8.3	710.1	0.343
1002.1	0.96	0.1	7.2	850.0	0.342
1582.4	2.28	0.1	4.0	1002.1	0.343
1870.0	3.21	0.1	3.1	1290.4	0.346
2001.7	3.65	0.1	2.8	1582.4	0.348
2499.6	5.91	0.3	1.6	1870.0	0.345
2997.5	9.36	0.7	0.7	2001.7	0.350
3244.6	11.63	1.0	0.5	2248.8	0.355
3491.7	13.38	1.1	0.3	2499.6	0.347
3740.0	15.60	1.2	0.3	2746.7	0.345
4000.8	17.72	1.2	0.3	2997.5	0.309
4289.1	20.35	1.2	0.3	3244.6	0.308
4573.6	23.49	1.3	0.3	3491.7	0.291
4715.9	25.12	1.3	0.3	3740.0	0.282
4858.2	26.62	1.4	0.2	4000.8	0.287
5000.0	28.10	1.4	0.3	4143.1	0.295
5011.7	28.25	1.4	0.3	4289.1	0.281
5176.4	30.15	1.5	0.2	4431.4	0.262
5341.1	32.09	1.8	0.2	4573.6	0.254
5505.8	34.13	2.6	0.2	4715.9	0.254
5670.6	36.22	4.0	0.2	4858.2	0.249
5752.9	37.22	5.2	0.2	5000.0	0.238
5835.3	37.22	6.7	0.2	5011.7	0.245
5917.6	39.23	8.2	0.2	5094.0	0.258
6000.0	39.53	8.0	0.2	5176.4	0.243



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RF/IF MICROWAVE COMPONENTS

REV. OR
M97867
NBLP-1870
070509

Coaxial Low Pass Filter (Flat Time Delay)

NBLP-1870

Typical Performance Data

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152.3	0.05	22.60	152.3	0.346
433.0	0.22	14.10	290.8	0.345
571.6	0.36	11.60	433.0	0.344
710.1	0.53	9.80	571.6	0.344
850.0	0.73	8.30	710.1	0.343
1002.1	0.96	7.20	850.0	0.342
1582.4	2.28	4.00	1002.1	0.343
1870.0	3.21	3.10	1290.4	0.346
2001.7	3.65	2.80	1582.4	0.348
2499.6	5.91	1.60	1870.0	0.345
2997.5	9.36	0.70	2001.7	0.350
3244.6	11.63	0.50	2248.8	0.355
3491.7	13.38	0.30	2499.6	0.347
3740.0	15.60	0.30	2746.7	0.345
4000.8	17.72	0.30	2997.5	0.309
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REV. X1
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Page 1 of 1



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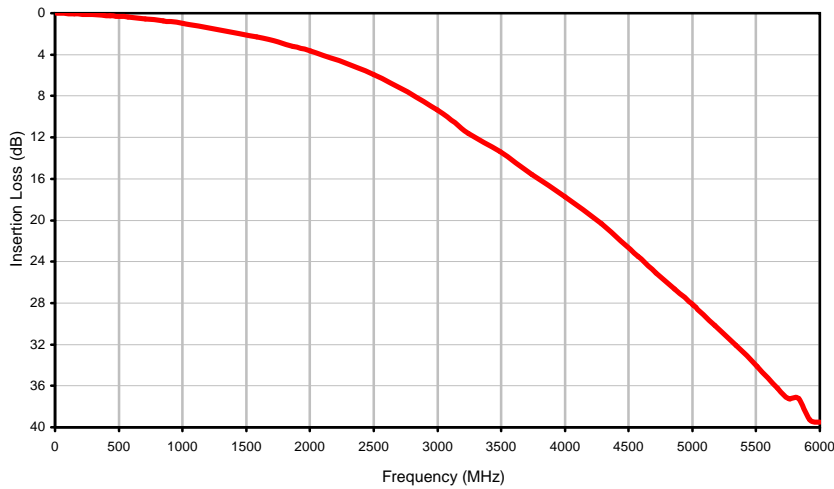


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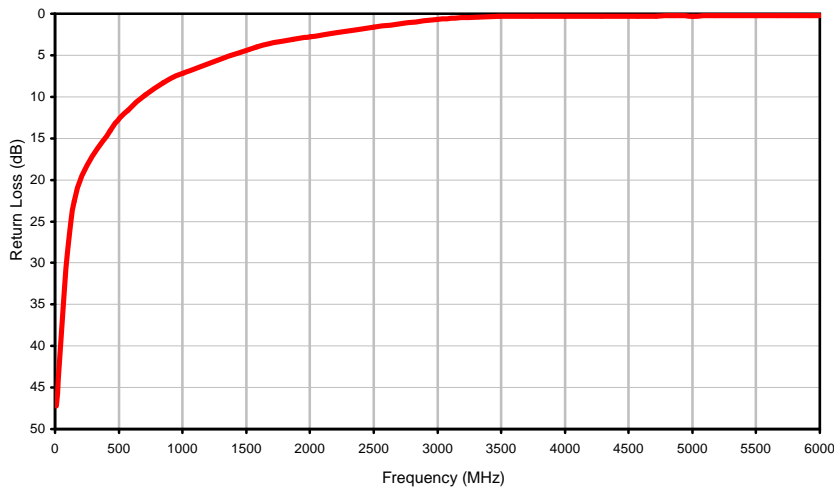


Typical Performance Curves

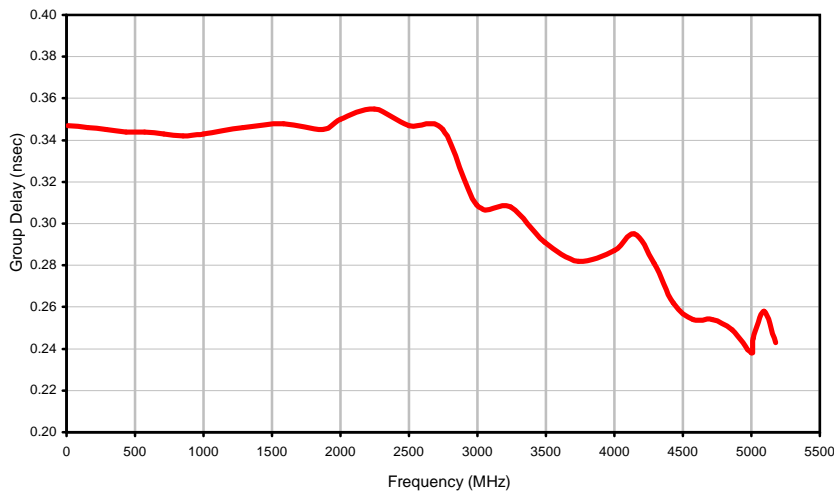
Insertion Loss



Return Loss



Group Delay



REV. X1
NBLP-1870
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Page 1 of 1



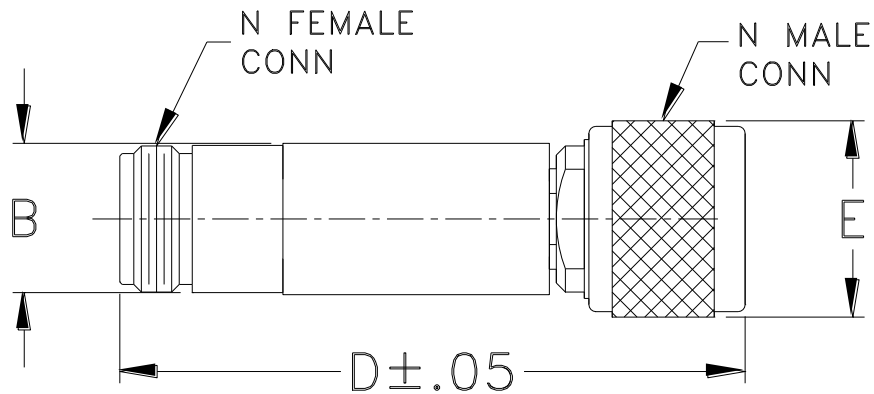
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Outline Dimensions



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