

Low Pass Filter

50Ω DC to 580 MHz

Maximum Ratings

Operating Temperature -55°C to +100°C

Storage Temperature -55°C to +100°C

RF Power Input 0.5 W 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-600+



Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors Model

N-Type NLP-600+

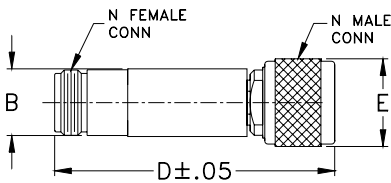
+RoHS Compliant

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-580	640	840-1120	1120-2000	1.7	18

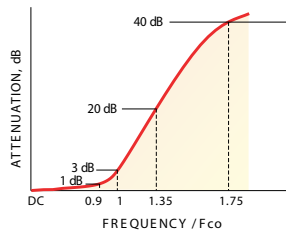
Outline Drawing



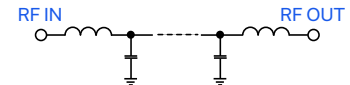
Outline Dimensions (inch/mm)

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

typical frequency response



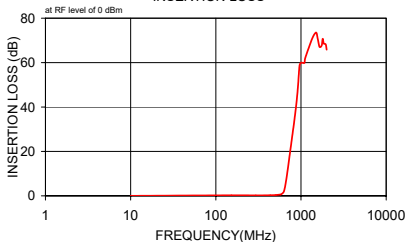
electrical schematic



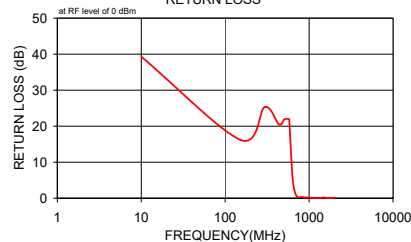
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ		
10.00	0.01	0.1	10.00	1.41
152.50	0.22	0.2	80.00	1.44
295.00	0.20	0.1	152.50	1.38
437.50	0.28	0.1	222.50	1.42
507.50	0.37	0.1	295.00	1.59
577.50	0.59	0.1	365.00	1.79
580.00	0.60	0.1	437.50	1.95
620.00	1.50	0.3	507.50	2.27
640.00	2.98	0.4	577.50	2.86
670.00	7.09	0.6	580.00	2.85
720.00	15.52	2.0	600.00	3.36
800.00	28.44	4.7	620.00	3.84
820.00	31.52	5.4	630.00	3.98
830.00	33.06	5.7	640.00	3.81
840.00	34.63	6.1	670.00	3.37
880.00	41.22	8.0	700.00	2.26
920.00	48.84	9.9	720.00	2.30
960.00	58.62	9.9	750.00	1.48
1000.00	59.95	9.9	800.00	0.77
1100.00	59.89	8.4	820.00	0.93
1120.00	62.05	8.8	830.00	1.54
1360.00	71.05	2.3	840.00	1.00
1502.50	73.53	9.3	880.00	0.79
1572.50	70.71	4.9	900.00	1.01
1650.00	67.12	3.4	920.00	1.11
1750.00	67.73	7.7	940.00	1.28
1800.00	70.74	9.5	960.00	1.15
1850.00	68.64	9.1	1000.00	1.02
1950.00	68.21	7.1	1100.00	0.95
2000.00	65.82	4.6	1120.00	0.85

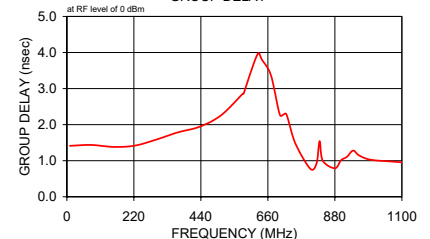
INSERTION LOSS



RETURN LOSS



GROUP DELAY



Notes

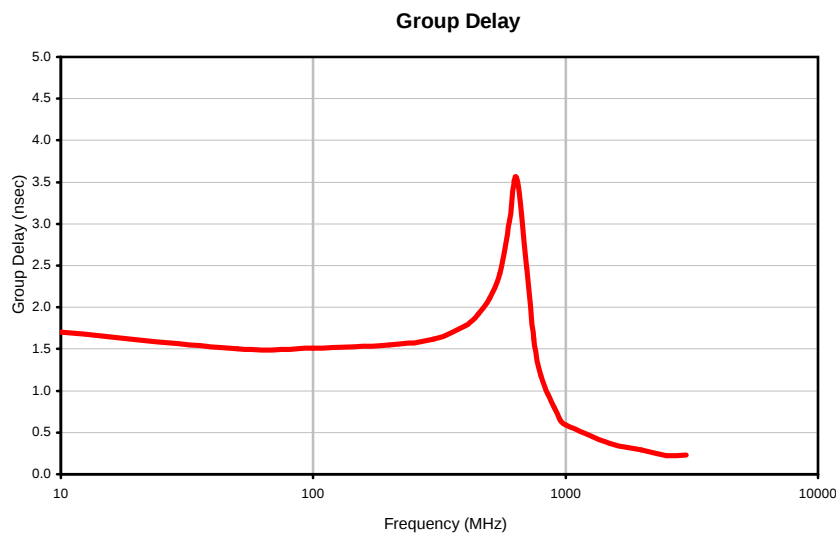
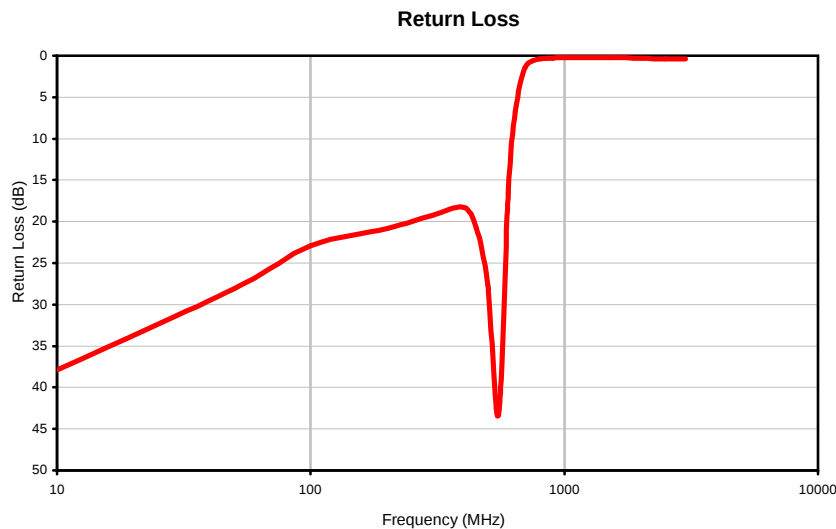
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 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document 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



Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.15	37.91	10.0	1.700
50.0	0.10	28.09	50.0	1.500
100.0	0.14	22.89	100.0	1.510
200.0	0.21	20.84	200.0	1.550
300.0	0.29	19.27	300.0	1.620
400.0	0.36	18.30	400.0	1.780
450.0	0.36	20.78	450.0	1.920
500.0	0.39	27.60	500.0	2.110
550.0	0.45	43.31	550.0	2.410
600.0	0.72	16.49	600.0	3.040
640.0	2.09	6.68	640.0	3.550
700.0	8.63	1.44	700.0	2.470
750.0	15.42	0.61	750.0	1.620
800.0	21.66	0.40	800.0	1.180
850.0	27.21	0.31	850.0	0.960
900.0	32.27	0.28	900.0	0.800
950.0	36.86	0.24	950.0	0.650
1000.0	41.08	0.25	1000.0	0.590
1500.0	67.58	0.25	1500.0	0.370
2000.0	69.00	0.34	2000.0	0.290
2500.0	66.77	0.36	2500.0	0.220
3000.0	65.18	0.39	3000.0	0.230

Typical Performance Curves



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant
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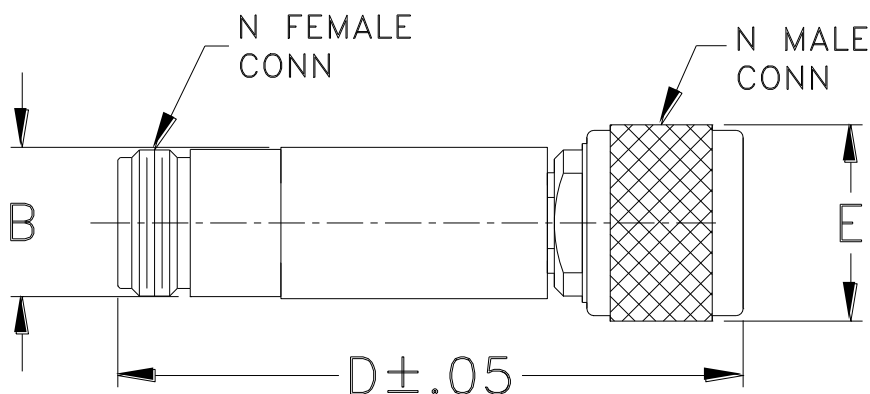


The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



REV. X1
NLP-600+
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