Coaxial

Bandpass Filter

NIF-60+
NIF-60

50Ω Constant Impedance 50 to 70 MHz

Maximum Ratings

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

Features

- low VSWR in pass & stopbands, 1.3:1 typ.
- rugged shielded case
- custom fo models available

Applications

- harmonic rejection
- lab use

CASE STYLE: FF57

Connectors	Model	Price	Qty.
N-Type	NIF-60(+)	Contact Sales Dept.	

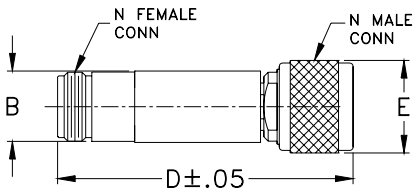
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Bandpass Filter Electrical Specifications

MODEL NO.	CENTER FREQ. (MHz)	PASSBAND (MHz) (loss<1 dB)	STOPBANDS (loss > 10 dB) at MHz	STOPBANDS (loss > 20 dB) at MHz	VSWR, 1.3:1 Typ. TOTAL BAND (MHz)
NIF-60(+)	60	50-70	14 & 240	3.8 & 400	DC-500

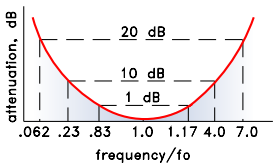
Outline Drawing



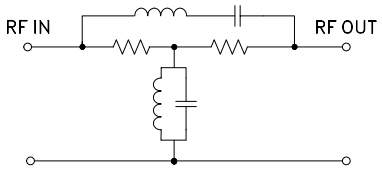
Outline Dimensions (inch / mm)

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

typical frequency response

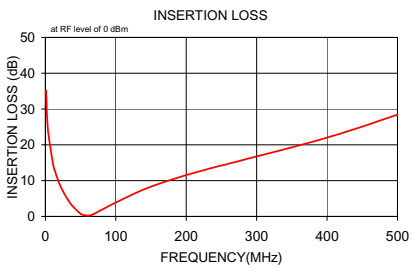


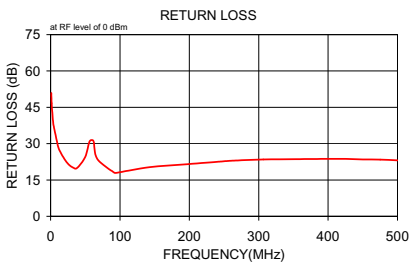
Electrical Schematic

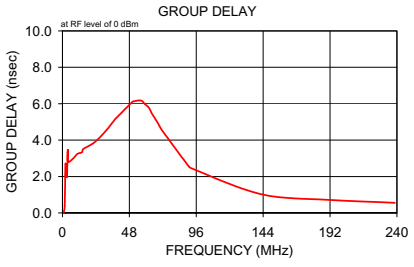


Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
1.0	35.25	0.1	50.9	1.0	0.036
1.6	31.45	0.1	46.7	1.6	0.385
2.1	28.84	0.1	43.8	2.1	2.704
2.7	26.81	0.1	41.8	2.7	2.564
3.2	25.18	0.1	40.0	3.2	1.978
3.8	23.80	0.1	38.6	3.8	3.449
4.0	23.37	0.1	37.9	3.9	2.820
10.7	14.83	0.1	29.0	7.3	2.963
14.0	12.40	0.1	26.6	10.7	3.244
20.0	9.15	0.1	23.6	14.0	3.331
26.0	6.66	0.1	21.4	15.0	3.511
32.0	4.65	0.1	20.2	22.8	3.863
38.0	3.00	0.1	19.9	30.5	4.455
50.0	0.75	0.1	24.5	38.2	5.190
56.4	0.27	0.1	31.0	38.9	5.236
61.9	0.26	0.1	31.0	50.4	6.121
67.3	0.54	0.0	23.7	51.3	6.127
92.0	3.08	0.1	18.0	54.0	6.168
94.0	3.30	0.1	17.9	56.9	6.165
142.7	7.76	0.1	20.3	58.9	6.001
191.3	11.04	0.1	21.4	62.0	5.775
240.0	13.71	0.2	22.5	64.2	5.461
260.0	14.71	0.2	22.9	67.6	5.045
306.7	17.09	0.2	23.5	70.0	4.715
353.3	19.45	0.3	23.6	71.2	4.566
400.0	22.02	0.5	23.7	90.7	2.549
425.0	23.50	0.6	23.7	92.3	2.464
450.0	25.09	0.6	23.5	142.1	1.039
475.0	26.76	0.8	23.4	190.5	0.715
500.0	28.43	0.9	23.1	238.5	0.552







For detailed performance specs & shopping online see web site

Coaxial Band Pass Filter (Constant Impedance) NIF-60

Typical Performance Data

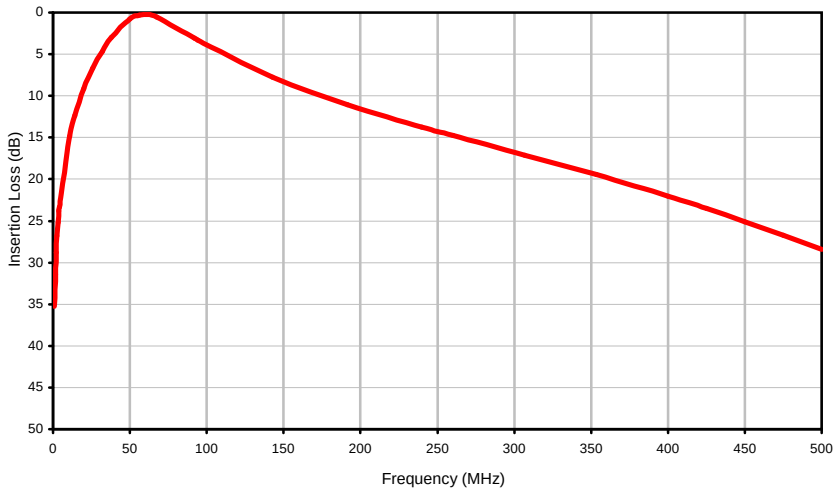
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
1.00	35.25	50.90
1.60	31.45	46.70
2.10	28.84	43.80
2.70	26.81	41.80
3.20	25.18	40.00
3.80	23.80	38.60
4.00	23.37	37.90
10.70	14.83	29.00
14.00	12.40	26.60
20.00	9.15	23.60
26.00	6.66	21.40
32.00	4.65	20.20
38.00	3.00	19.90
50.00	0.75	24.50
56.40	0.27	31.00
61.90	0.26	31.00
67.30	0.54	23.70
92.00	3.08	18.00
94.00	3.30	17.90
142.70	7.76	20.30
191.30	11.04	21.40
240.00	13.71	22.50
260.00	14.71	22.90
306.70	17.09	23.50
353.30	19.45	23.60
400.00	22.02	23.70
425.00	23.50	23.70
450.00	25.09	23.50
475.00	26.76	23.40
500.00	28.43	23.10

FREQUENCY (MHz)	GROUP DELAY (nsec)
1.0	0.036
1.6	0.385
2.1	2.704
2.7	2.564
3.2	1.978
3.8	3.449
3.9	2.820
7.3	2.963
10.7	3.244
14.0	3.331
15.0	3.511
22.8	3.863
30.5	4.455
38.2	5.190
38.9	5.236
50.4	6.121
51.3	6.127
54.0	6.168
56.9	6.165
58.9	6.001
62.0	5.775
64.2	5.461
67.6	5.045
70.0	4.715
71.2	4.566
90.7	2.549
92.3	2.464
142.1	1.039
190.5	0.715
238.5	0.552

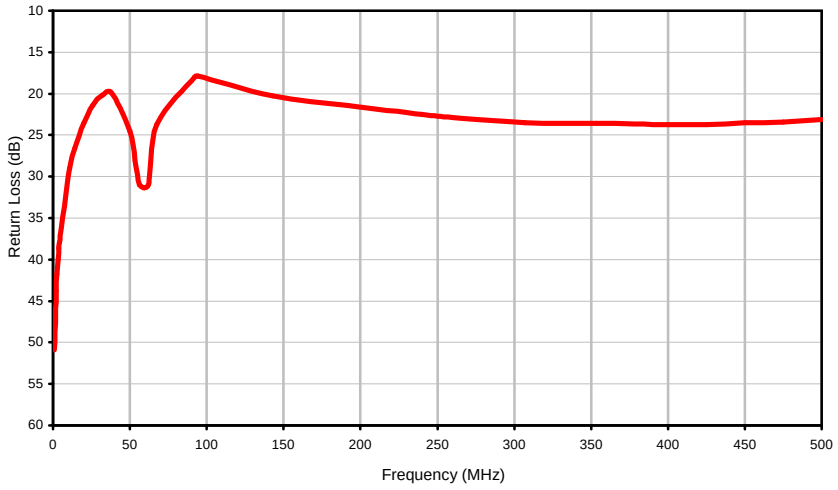
Coaxial Band Pass Filter (Constant Impedance) NIF-60

Typical Performance Curves

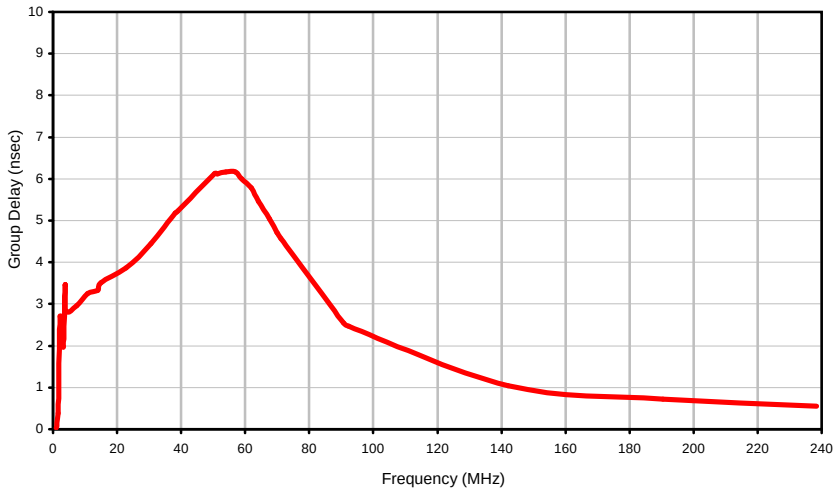
Insertion Loss



Return Loss



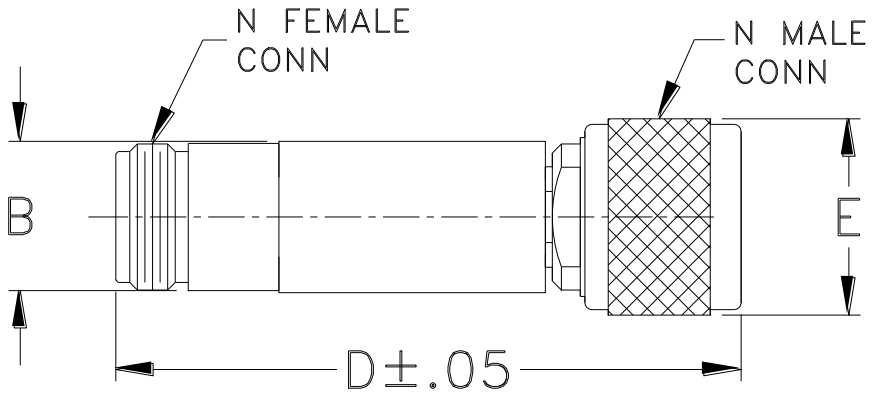
Group Delay



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