

Coaxial

Bandpass Filter

NON-CATALOG

NIF-70+
NIF-70
50Ω Constant Impedance 58 to 82 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-70(+)	Contact Sales Dept.	

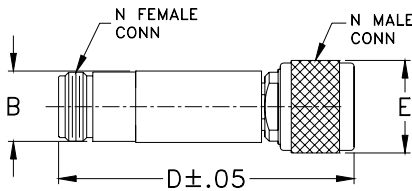
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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)	STOPBANDS		VSWR, 1.3:1 Typ. TOTAL BAND (MHz)
		(loss<1 dB)	(loss > 10 dB) at MHz	(loss > 20 dB) at MHz	
NIF-70(+)	70	58-82	16 & 280	4.4 & 490	DC-550

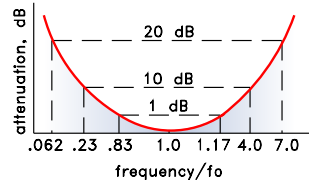
Outline Drawing



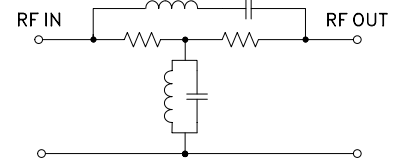
Outline Dimensions (inch/mm)

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

typical frequency response

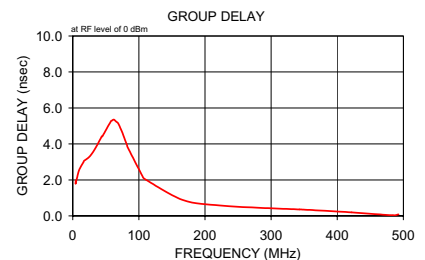
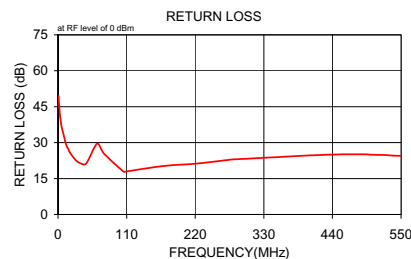


Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ			
1.0	36.56	0.2	49.5	4.4	1.965
1.7	32.08	0.2	45.9	4.5	1.803
2.4	29.16	0.2	43.7	8.4	2.416
3.0	27.01	0.2	41.6	12.2	2.736
3.7	25.26	0.2	40.1	16.1	2.984
4.4	23.82	0.2	38.7	17.0	3.059
6.0	21.13	0.2	36.2	26.2	3.326
12.7	14.61	0.2	29.4	35.1	3.817
16.0	12.53	0.2	27.5	43.9	4.422
20.0	10.51	0.2	25.5	44.7	4.419
28.3	7.27	0.2	22.7	57.9	5.270
36.7	4.76	0.2	21.3	58.9	5.288
45.0	2.79	0.1	21.3	62.0	5.357
58.0	0.77	0.1	27.9	65.3	5.248
63.7	0.34	0.1	29.7	68.8	5.146
70.0	0.24	0.1	26.9	72.4	4.843
74.7	0.35	0.1	25.1	75.0	4.639
105.0	2.87	0.1	17.9	79.0	4.231
110.0	3.34	0.2	18.0	81.8	3.959
166.7	7.80	0.2	20.2	83.2	3.803
223.3	11.10	0.2	21.3	105.9	2.168
280.0	13.80	0.3	23.0	107.8	2.082
290.0	14.28	0.3	23.1	166.0	0.886
423.3	20.50	0.9	24.9	222.6	0.581
490.0	24.04	1.4	25.1	278.6	0.458
500.0	24.60	1.5	25.0	342.8	0.360
512.5	25.30	1.5	24.9	348.7	0.351
525.0	25.98	1.6	24.8	421.7	0.199
537.5	26.70	1.6	24.6	484.2	0.031
550.0	27.34	1.4	24.5	492.6	0.079



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REV. A
 M122594
 NIF-70
 100223

Coaxial Band Pass Filter (Constant Impedance) NIF-70

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.00	36.56	49.50	4.4	1.965
1.70	32.08	45.90	4.5	1.803
2.40	29.16	43.70	8.4	2.416
3.00	27.01	41.60	12.2	2.736
3.70	25.26	40.10	16.1	2.984
4.40	23.82	38.70	17.0	3.059
6.00	21.13	36.20	26.2	3.326
12.70	14.61	29.40	35.1	3.817
16.00	12.53	27.50	43.9	4.422
20.00	10.51	25.50	44.7	4.419
28.30	7.27	22.70	57.9	5.270
36.70	4.76	21.30	58.9	5.288
45.00	2.79	21.30	62.0	5.357
58.00	0.77	27.90	65.3	5.248
63.70	0.34	29.70	68.8	5.146
70.00	0.24	26.90	72.4	4.843
74.70	0.35	25.10	75.0	4.639
105.00	2.87	17.90	79.0	4.231
110.00	3.34	18.00	81.8	3.959
166.70	7.80	20.20	83.2	3.803
223.30	11.10	21.30	105.9	2.168
280.00	13.80	23.00	107.8	2.082
290.00	14.28	23.10	166.0	0.886
423.30	20.50	24.90	222.6	0.581
490.00	24.04	25.10	278.6	0.458
500.00	24.60	25.00	342.8	0.360
512.50	25.30	24.90	348.7	0.351
525.00	25.98	24.80	421.7	0.199
537.50	26.70	24.60	484.2	0.031
550.00	27.34	24.50	492.6	0.079

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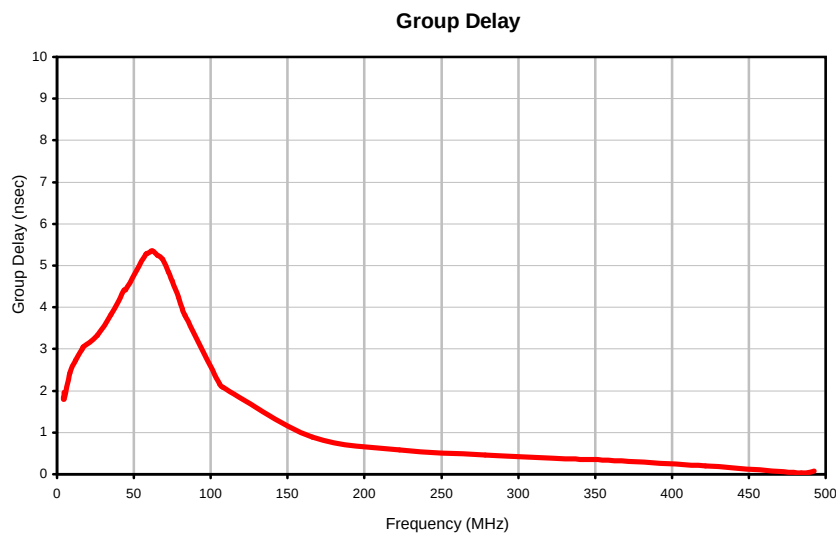
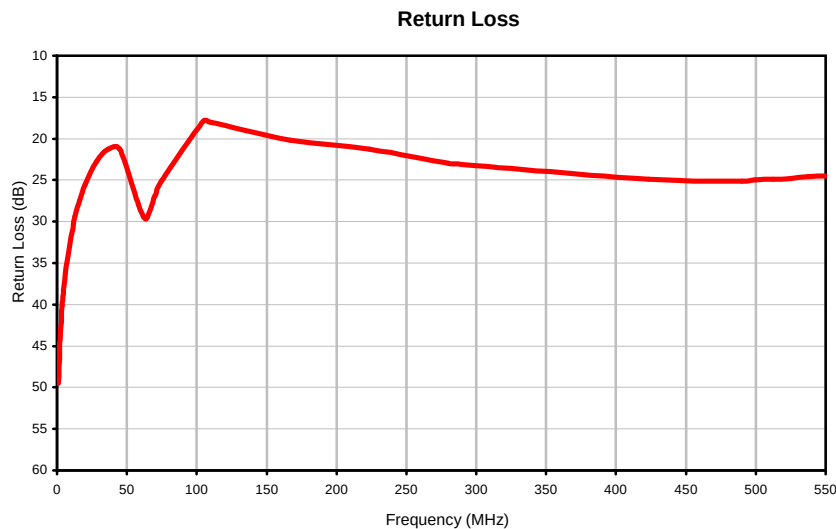
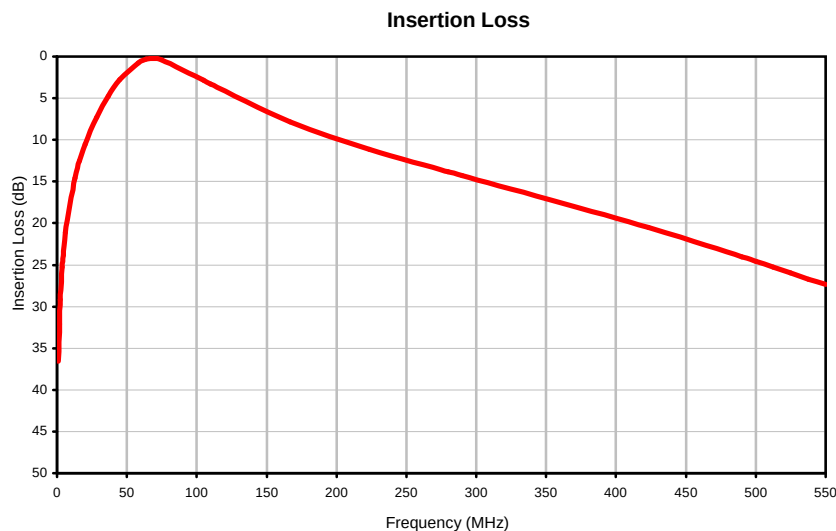
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Coaxial Band Pass Filter (Constant Impedance)

NIF-70

Typical Performance Curves



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NIF-70
060725
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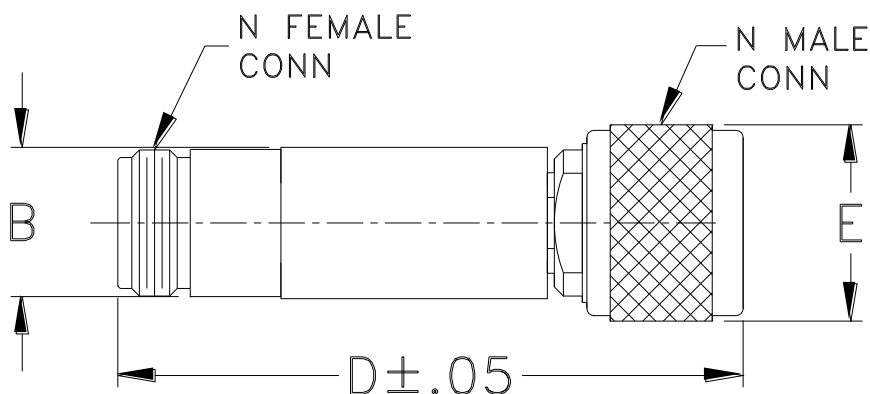
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Outline Dimensions



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