

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.	

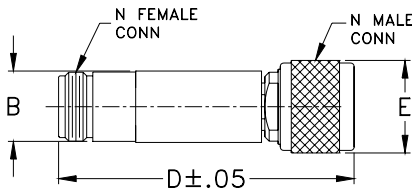
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

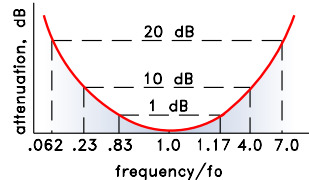
Outline Drawing



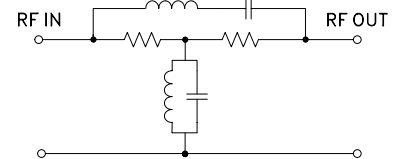
Outline Dimensions (inch/mm)

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

typical frequency response

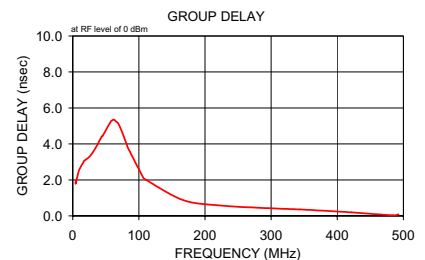
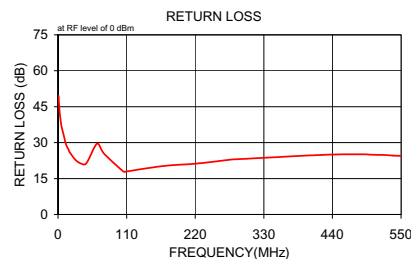


Electrical Schematic



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



Mini-Circuits®
 ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine

IF/RF MICROWAVE COMPONENTS



Provides ACTUAL Data Instantly at minicircuits.com

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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

REV. X1
NIF-70+
060725
Page 1 of 1



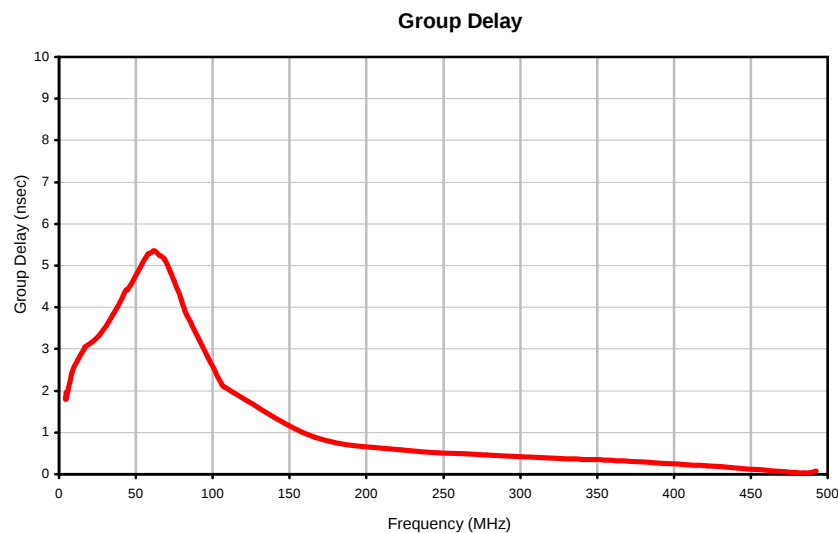
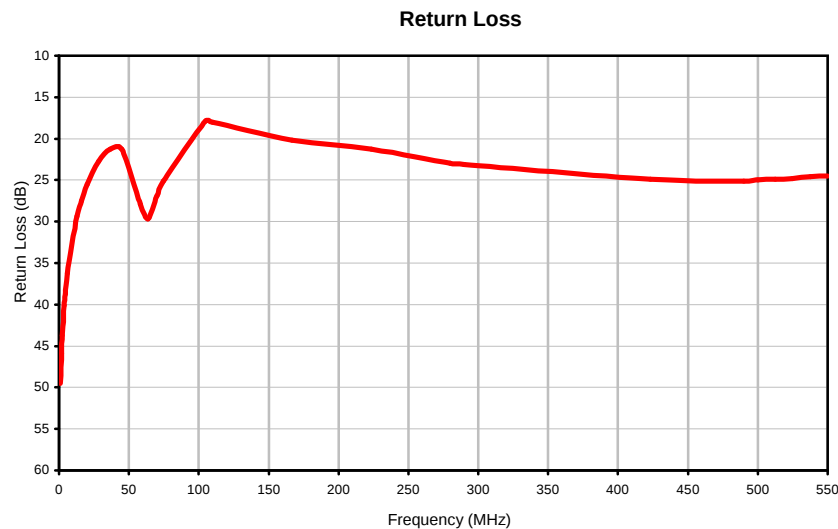
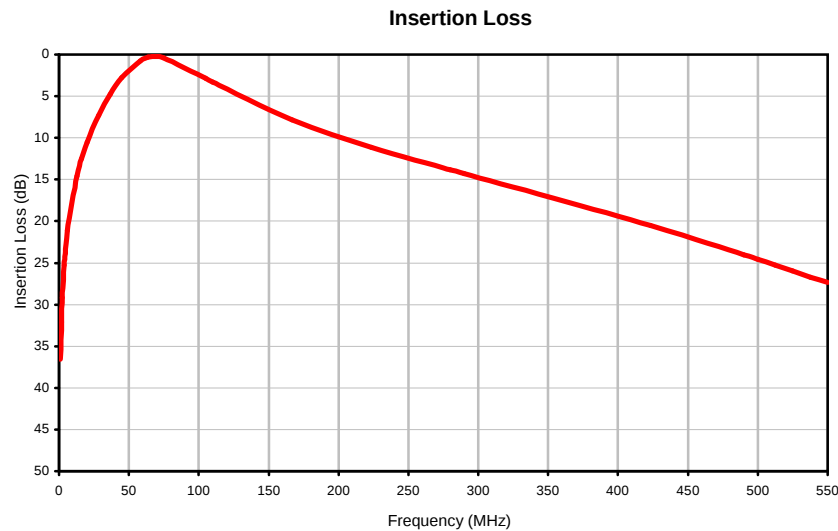
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

Mini-Circuits®



Coaxial Band Pass Filter (Constant Impedance) NIF-70+

Typical Performance Curves



REV. X1
NIF-70+
060725
Page 1 of 1



Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

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