

Coaxial

Bandpass Filter

NON-CATALOG

BIF-30+



50Ω Constant Impedance 25 to 35 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 to models available

Applications

- harmonic rejection
- lab use

Connectors	Model	Price	Qty.
BNC	BIF-30+		Contact Sales Dept.

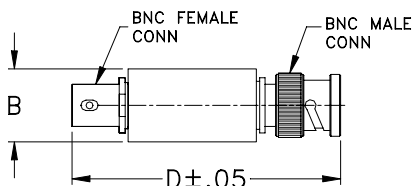
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify 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	
BIF-30(+)	30	25-35	7 & 120	1.9 & 210	DC-330

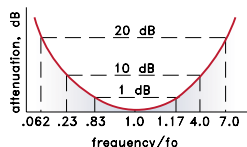
Outline Drawing



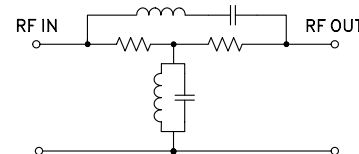
Outline Dimensions (inch/mm)

B	D	wt
.54	2.59	grams
13.72	65.79	40.0

typical frequency response

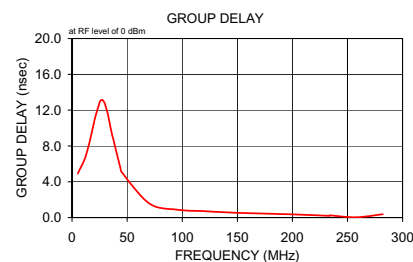
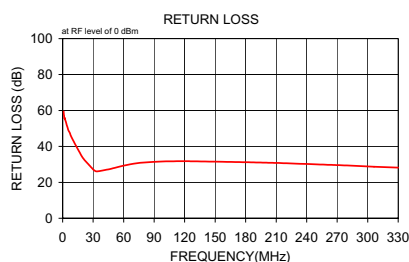


Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ			
1.0	30.97	0.1	59.5	5.3	4.911
1.2	29.52	0.1	57.9	7.0	5.392
1.4	28.29	0.1	57.1	8.0	5.612
1.5	27.23	0.1	56.5	12.0	6.685
1.7	26.25	0.1	56.0	16.0	8.448
1.9	25.40	0.1	55.5	20.0	10.612
2.0	24.95	0.1	55.8	21.0	11.190
5.3	16.33	0.1	49.5	25.0	12.864
7.0	13.88	0.1	47.5	26.0	13.075
8.0	12.64	0.1	46.0	27.3	13.145
12.0	8.66	0.1	41.6	28.8	12.980
16.0	5.59	0.1	37.4	30.0	12.639
20.0	3.10	0.1	33.5	31.0	12.237
26.0	0.66	0.1	29.6	32.3	11.647
28.7	0.26	0.1	28.0	33.8	10.775
31.0	0.25	0.1	26.7	35.0	10.047
33.7	0.55	0.1	26.1	36.0	9.449
44.0	2.99	0.1	27.1	44.0	5.471
45.0	3.25	0.1	27.2	45.0	5.093
70.0	8.33	0.1	30.4	70.0	1.581
95.0	11.72	0.1	31.5	95.0	0.883
120.0	14.33	0.1	31.8	120.0	0.718
121.0	14.43	0.1	31.8	121.0	0.703
180.0	19.47	0.1	31.2	150.8	0.518
210.0	21.85	0.1	30.8	180.3	0.428
211.0	21.93	0.1	30.8	210.0	0.305
258.6	26.09	0.2	29.8	233.8	0.196
282.4	28.52	0.2	29.3	234.0	0.244
306.2	31.23	0.3	28.7	258.0	0.031
330.0	34.20	0.4	28.2	282.0	0.378



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REV. B
M108294
BIF-30+
070509

Coaxial Band Pass Filter(Constant Impedance) BIF-30+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.0	30.97	59.50	5.3	4.911
1.2	29.52	57.90	7.0	5.392
1.4	28.29	57.10	8.0	5.612
1.5	27.23	56.50	12.0	6.685
1.7	26.25	56.00	16.0	8.448
1.9	25.40	55.50	20.0	10.612
2.0	24.95	55.80	21.0	11.190
5.3	16.33	49.50	25.0	12.864
7.0	13.88	47.50	26.0	13.075
8.0	12.64	46.00	27.3	13.145
12.0	8.66	41.60	28.8	12.980
16.0	5.59	37.40	30.0	12.639
20.0	3.10	33.50	31.0	12.237
26.0	0.66	29.60	32.3	11.647
28.7	0.26	28.00	33.8	10.775
31.0	0.25	26.70	35.0	10.047
33.7	0.55	26.10	36.0	9.449
44.0	2.99	27.10	44.0	5.471
45.0	3.25	27.20	45.0	5.093
70.0	8.33	30.40	70.0	1.581
95.0	11.72	31.50	95.0	0.883
120.0	14.33	31.80	120.0	0.718
121.0	14.43	31.80	121.0	0.703
180.0	19.47	31.20	150.8	0.518
210.0	21.85	30.80	180.3	0.428
211.0	21.93	30.80	210.0	0.305
258.6	26.09	29.80	233.8	0.196
282.4	28.52	29.30	234.0	0.244
306.2	31.23	28.70	258.0	0.031
330.0	34.20	28.20	282.0	0.378

REV. X1
BIF-30+
070603

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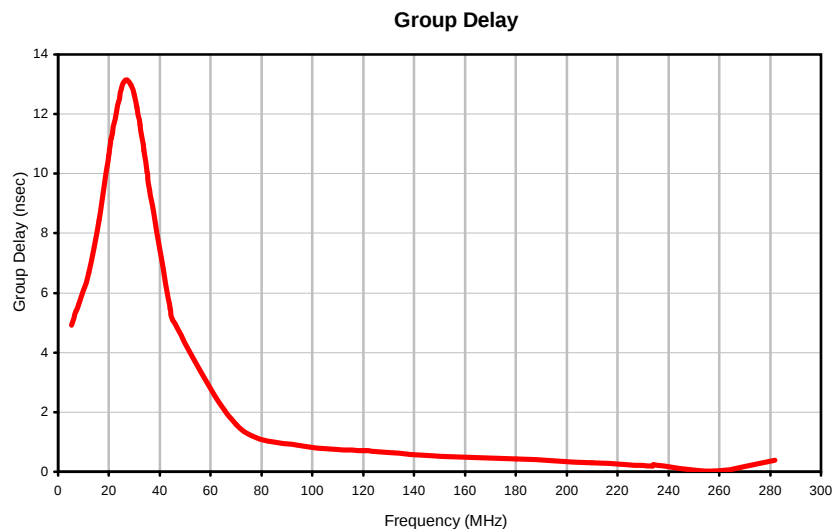
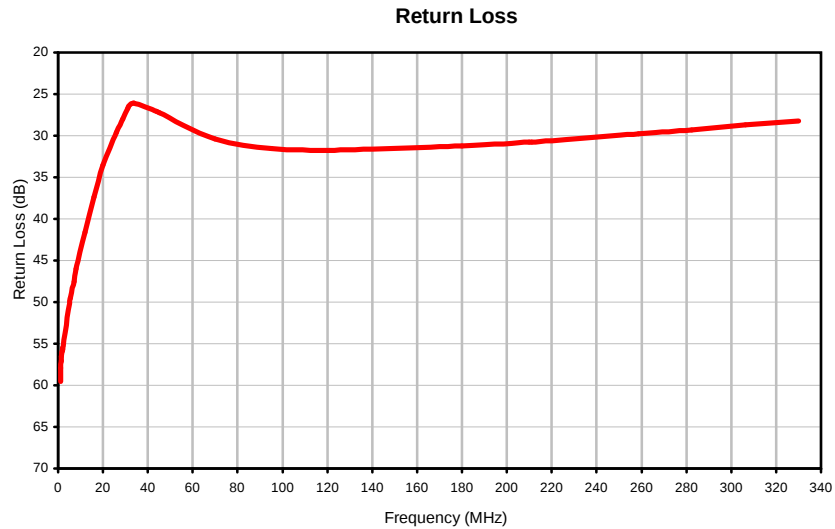
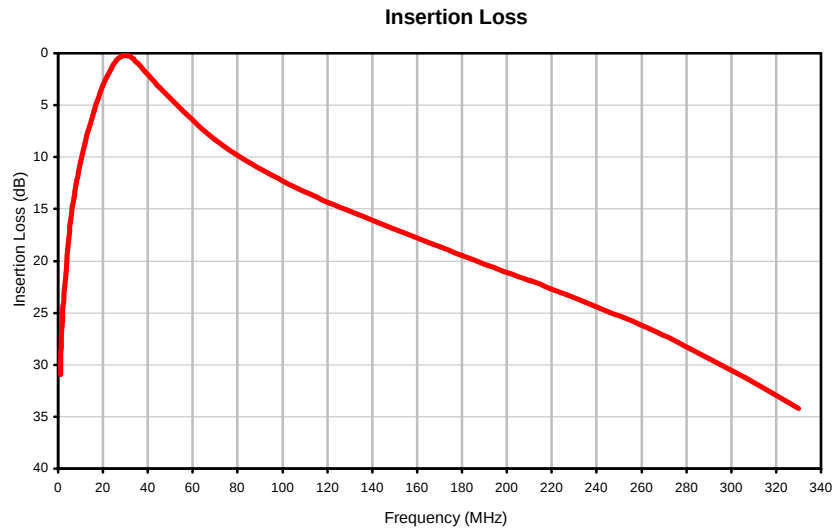


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Coaxial Band Pass Filter (Constant Impedance) BIF-30+

Typical Performance Curves



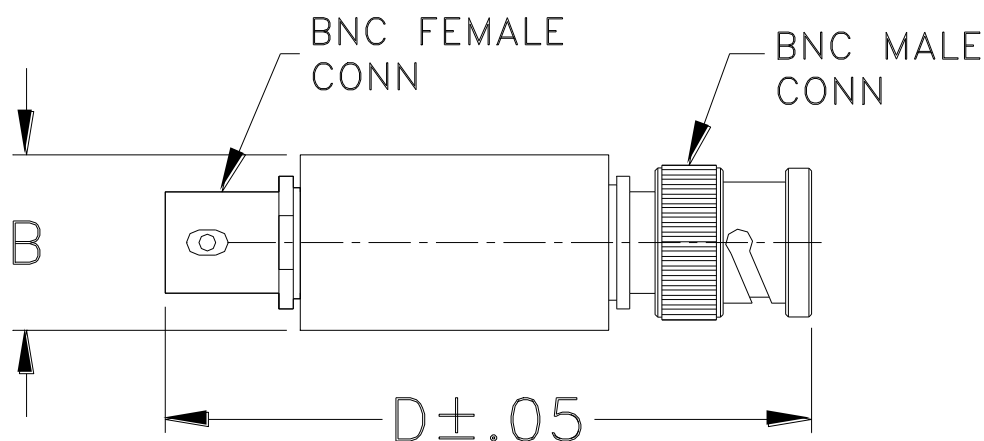
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Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF55	--	.57 (14.47)	--	2.59 (65.79)	--	40.0

Dimensions are in inches (mm). Tolerances: 2Pl. +.03/-.04; 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