

# Coaxial Bandpass Filter

SIF-50+

50Ω Constant Impedance 41 to 58 MHz

## Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

RF Power Input 0.5W max.

Permanent damage may occur if any of these limits are exceeded.

## Features

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

## Applications

- harmonic rejection
- lab use



Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors Model  
SMA SIF-70+

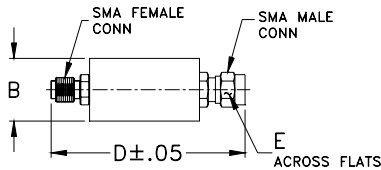
**+RoHS Compliant**

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

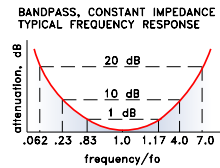
## Bandpass Filter Electrical Specifications

CENTER FREQ. (MHz)	PASSBAND (MHz) (loss < 1 dB)	STOPBANDS		VSWR, 1.3:1 Typ. TOTAL BAND (MHz)
		(loss > 10 dB) at MHz	(loss > 20 dB) at MHz	
50	41-58	11.5 & 200	3.1 & 350	DC-440

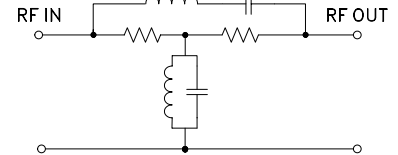
## Outline Drawing



## typical frequency response



## electrical schematic

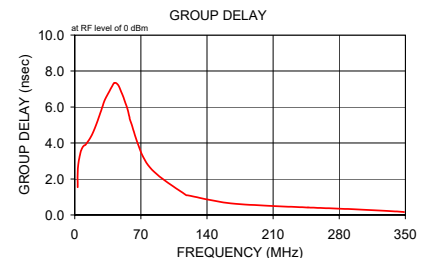
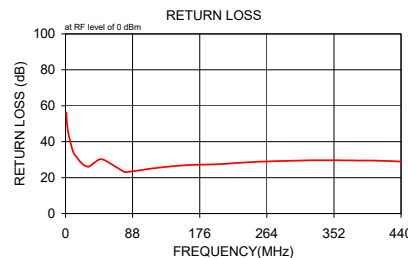
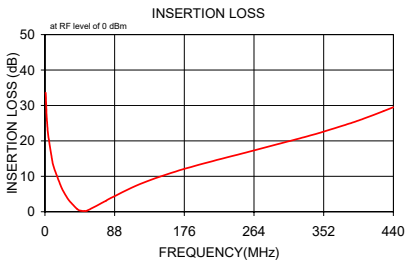


## Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$			
1.0	33.62	0.2	56.3	3.1	1.540
1.4	30.60	0.2	53.5	3.2	2.572
1.8	28.39	0.2	51.1	5.9	3.434
2.3	26.60	0.2	49.3	8.7	3.800
2.7	25.16	0.2	47.6	11.4	3.893
3.1	23.91	0.2	46.4	11.6	3.910
4.0	21.72	0.3	43.9	18.2	4.448
9.0	14.63	0.2	35.6	24.4	5.257
11.5	12.44	0.2	33.2	31.1	6.290
20.0	7.25	0.2	28.5	32.2	6.428
23.7	5.61	0.2	27.1	41.0	7.293
27.3	4.18	0.2	26.3	41.7	7.342
31.0	2.95	0.2	26.2	43.9	7.325
41.0	0.70	0.1	29.3	46.2	7.197
45.5	0.28	0.1	30.2	48.7	6.905
50.0	0.21	0.1	30.0	51.3	6.571
53.0	0.34	0.1	29.3	53.1	6.309
77.0	3.12	0.1	23.2	55.9	5.874
80.0	3.52	0.1	23.1	57.9	5.441
120.0	7.84	0.1	25.4	58.9	5.242
160.0	10.99	0.2	27.0	77.6	2.769
200.0	13.61	0.2	27.5	117.5	1.114
250.0	16.51	0.2	28.8	119.5	1.093
316.7	20.38	0.4	29.6	160.3	0.679
350.0	22.46	0.4	29.7	200.7	0.525
390.0	25.29	0.6	29.5	246.9	0.414
402.5	26.25	0.7	29.5	251.2	0.408
415.0	27.29	0.8	29.3	298.5	0.306
427.5	28.35	0.9	29.2	342.8	0.185
440.0	29.49	1.0	28.9	348.7	0.163

## Outline Dimensions (inch/mm)

B	D	E	wt
.67	1.98	.312	grams
17.02	50.29	7.92	42.0



## Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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