

Bandpass Filter

SBP-21.4+

50Ω Elliptic Response 19.2 to 23.6 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 insertion loss, 1.5 dB max.
- good selectivity, 1.76 typ. 20 dB / 3dB BW ratio
- rugged shielded case

Applications

- high rejection applications
- image rejection
- IF signal processing



CASE STYLE: FF99

Connectors	Model	Price	Qty.
SMA	SBP-21.4+	\$42.95 ea.	(1-9)

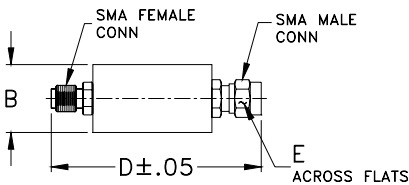
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

CENTER FREQ. (MHz)	PASSBAND (MHz)	3dB BANDWIDTH (MHz)	STOPBANDS		VSWR (:1)	
			(I. loss > 20 dB) at MHz	(I. loss > 35 dB) at MHz	Passband Max.	Stopband Typ.
21.4	19.2-23.6	17.9-25.3	15.5 & 29	3.0 & 80-1000	1.7	16

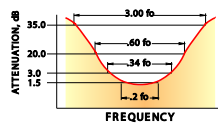
Outline Drawing



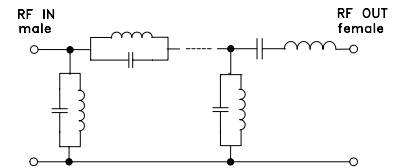
Outline Dimensions (inch/mm)

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

typical frequency response

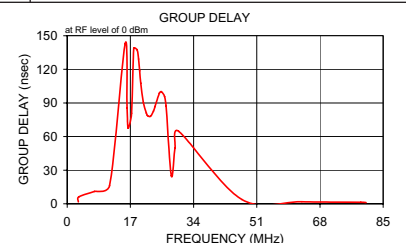
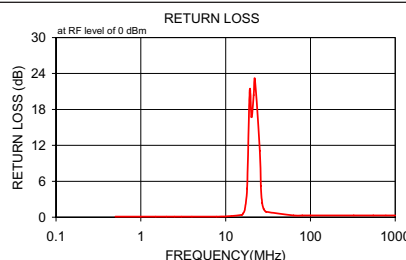
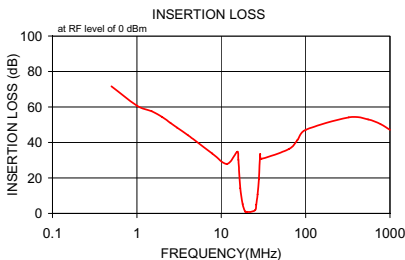


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
0.5	71.63	9.9	0.1	3.0	1.719
1.0	60.77	9.9	0.1	3.1	6.056
1.5	57.59	9.9	0.1	7.3	11.010
2.0	54.26	9.9	0.1	11.4	16.139
2.5	51.03	9.9	0.1	15.6	142.895
3.0	48.32	9.1	0.1	16.1	85.576
4.0	44.25	7.7	0.1	16.4	67.524
7.8	33.81	4.4	0.1	17.3	80.808
11.7	27.91	1.1	0.2	17.9	138.773
15.5	34.76	8.5	0.4	18.8	137.539
16.0	30.17	9.6	0.6	19.2	129.275
16.8	14.18	4.6	1.2	19.5	118.671
17.9	5.30	3.1	4.8	19.8	107.675
19.2	1.05	0.2	21.1	20.5	90.324
20.2	0.95	0.2	16.7	21.3	80.937
21.4	0.86	0.2	20.4	21.6	78.721
22.2	0.85	0.2	22.9	22.4	78.107
25.3	1.90	0.5	11.1	23.2	82.720
26.0	4.97	2.3	5.2	23.6	86.828
27.0	10.74	4.2	2.4	24.8	98.805
28.0	19.34	5.7	1.4	25.3	100.146
29.0	33.39	7.4	1.1	26.2	95.668
30.0	30.79	2.4	0.9	26.6	87.074
63.3	36.27	0.7	0.3	28.0	25.106
80.0	41.42	0.5	0.3	29.0	49.929
100.0	47.07	1.7	0.3	30.0	64.699
325.0	54.13	8.6	0.3	47.0	3.795
550.0	53.01	7.0	0.3	63.1	1.797
775.0	50.30	4.1	0.3	79.0	1.341
1000.0	47.08	3.5	0.3	80.4	1.116



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IF/RF MICROWAVE COMPONENTS

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-Circuits' 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.

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