

Coaxial Bandpass Filter

SBP-100+

50Ω 87 to 117 MHz



Generic photo used for illustration purposes only
CASE STYLE: FF99

The Big Deal

- Very good rejection
- Good VSWR 1.3:1 typ in passband
- Connectorized package

Product Overview

SBP-100+ is a 50Ω bandpass filter in a connectorized package. The bandpass filter covers from 87 to 117 MHz, offering good matching within the passband. It uses miniature high Q capacitors and wire welded inductors for high reliability. It has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
Very good rejection	Rejects unwanted spurious signals.
Good VSWR, 1.3:1 typical in passband	This provides well matched input and output ports.
Connectorized package	Connectorized package is easy to interface with other devices and well suited for test setups.

Notes

- A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document 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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Connectors	Model
SMA	SBP-100+

Features

- Very good rejection, 40 dB typ
- Good VSWR, 1.3:1 typical in passband
- Connectorized package

Applications

- Transmitters / Receivers
- Harmonic rejection
- Test equipment
- Military radio

Electrical Specifications at 25°C

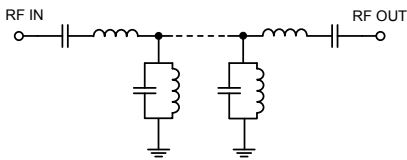
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	F1-F2	87 - 117	-	2.2	3.0	dB
	VSWR	F1-F2	87 - 117	-	1.3	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 55	40	49	-	dB
	VSWR	F3-F4	55 - 66	20	29	-	dB
		DC-F4	DC - 66	-	20	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	143 - 175	20	28	-	dB
	VSWR	F6-F7	175 - 1500	40	50	-	dB
		F5-F7	143 - 1500	-	20	-	:1

Maximum Ratings

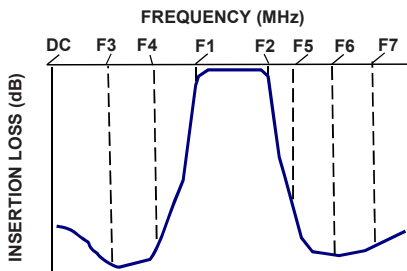
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.25 W max.

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

Functional Schematic



Typical Frequency Response

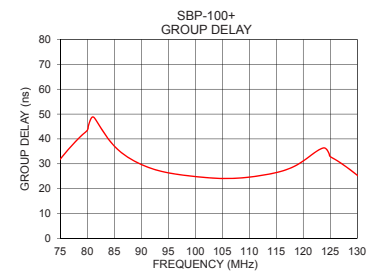
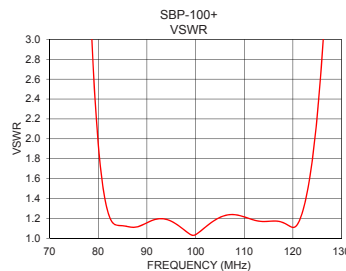
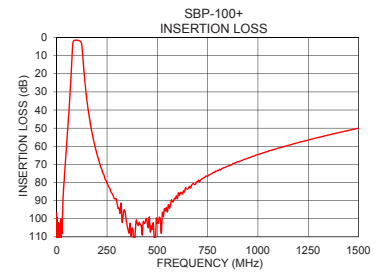
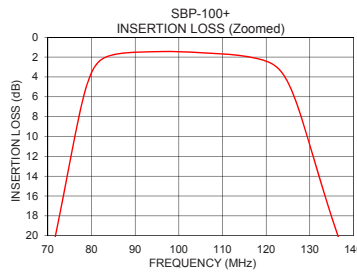


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (ns)
1	115.39	13721.78	87	33.40
5	105.34	18693.40	88	31.99
8	107.35	16070.10	89	30.78
10	102.17	22155.06	90	29.74
55	50.05	248.88	91	28.83
66	31.54	66.12	92	28.04
71	21.63	28.65	93	27.39
80	3.56	1.94	94	26.84
87	1.62	1.11	95	26.39
100	1.45	1.04	96	26.00
117	2.06	1.17	97	25.67
123	3.25	1.48	98	25.37
137	20.75	16.65	99	25.12
143	27.78	24.09	100	24.89
175	52.20	52.12	111	24.92
200	64.28	66.55	112	25.24
300	91.49	91.82	113	25.59
500	102.53	89.40	115	26.47
1000	64.57	52.59	116	27.04
1500	50.06	28.68	117	27.73

+RoHS Compliant

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



Notes

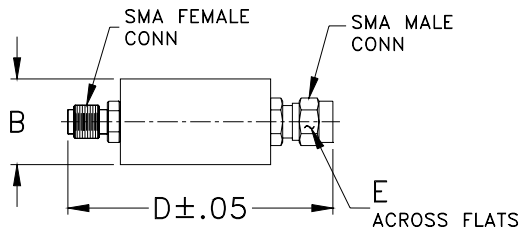
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Coaxial Connections

PORT - 1	SMA-Male
PORT - 2	SMA-Female

Outline Drawing



Outline Dimensions (inch / mm)

B	D	E	Wt.
.70	1.98	.312	grams
17.78	50.29	7.92	42.0

Note: Please refer to case style drawing for details

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