Coaxial

Bandpass Filter

SBP-140+

50Ω 130 to 150 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF99

The Big Deal

- High rejection, 50 dB typ.
- Good VSWR, 1.3:1 typ.
- Fast roll-off
- Narrow bandwidth
- Connectorized package

Product Overview

SBP-140+ is a 50Ω bandpass filter in a connectorized package. This bandpass filter covers from 130 to 150 MHz, these units offer good matching within the passband and high rejection. This unit uses a 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
High rejection, 50 dB typ.	This enables the filter to attenuate spurious signals and reject harmonics for broad frequency band.
Good VSWR, 1.3:1 typ.	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.

Coaxial

Bandpass Filter

50Ω 130 to 150 MHz

SBP-140+

Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SBP-140+

Features

- High rejection, 50 dB typ.
- Fast roll-off
- Good VSWR, 1.3:1 typ.
- Rugged shielded case
- Connectorized package

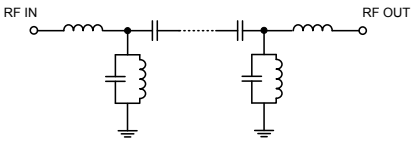
Applications

- Transmitters / Receivers
- Wireless communication systems
- Radio links
- Test setup

Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center frequency	-	-	-	140	-	MHz
	Insertion Loss	F1-F2	130 - 150	-	2.6	3.5	dB
	VSWR	F1-F2	130 - 150	-	1.3	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 100	40	47	-	dB
		F3-F4	100 - 110	20	30	-	dB
	VSWR	DC-F4	DC - 110	-	20	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	185 - 210	20	30	-	dB
		F6-F7	210 - 1000	40	50	-	dB
		F7-F8	1000 - 2000	-	40	-	dB
	VSWR	F7-F8	185 - 2000	-	20	-	:1

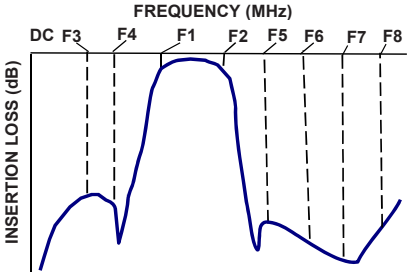
Functional Schematic



Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W max.

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

Typical Frequency Response

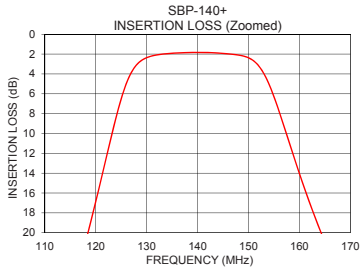


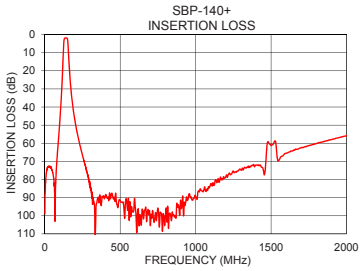
+RoHS Compliant

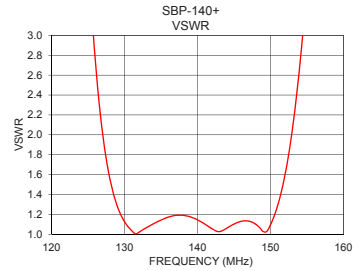
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

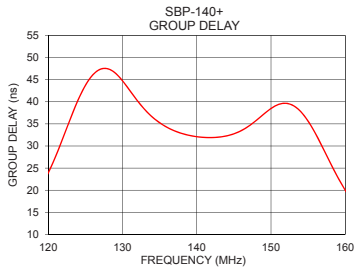
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (ns)
1	98.92	42.32	130	44.74
10	76.56	37.38	131	42.50
80	70.24	97.83	132	40.24
100	47.91	94.99	133	38.23
110	34.62	58.74	134	36.57
112	31.53	49.71	135	35.26
118	20.93	23.62	136	34.22
128	3.09	1.55	137	33.43
130	2.36	1.13	138	32.82
140	1.83	1.14	139	32.39
150	2.38	1.10	140	32.10
153	3.97	2.06	141	31.95
165	20.98	16.48	142	31.91
174	30.44	27.81	143	32.01
185	38.86	40.75	144	32.28
210	52.05	68.25	145	32.75
500	91.65	262.38	146	33.48
1000	89.31	214.01	147	34.49
1500	61.23	125.48	148	35.77
2000	55.82	84.55	150	38.48









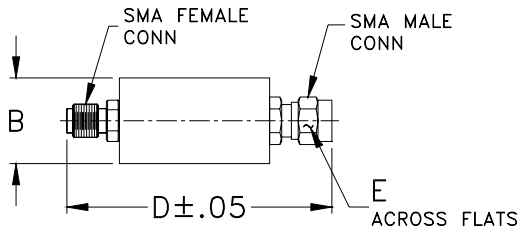
Notes

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

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