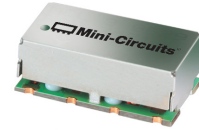


Surface Mount Bandpass Filter

SXBP-1100+

50Ω 1000 to 1200 MHz



Generic photo used for illustration purposes only
CASE STYLE: HF1139

The Big Deal

- Fast roll-off on the upper sideband
- Good Matching and low loss in the pass band
- Miniature shielded package

Product Overview

SXBP-1100+ is a wideband bandpass filter in a miniature shielded package covering 1000 to 1200 MHz. This is designed for asymmetric rejection applications such as super-heterodyne receivers. By having asymmetric band, faster roll-off at upper side band is achieved in a comparatively smaller package and lower pass band insertion loss. It has repeatable performance across lots and consistent performance across temperature

Key Features

| Feature | Advantages |
|---|---|
| Fast roll-off on the upper side band | Wide bandwidth filter with fast-roll off on the upper side band, which increases selectivity on the adjacent channel. |
| Good matching and low loss in pass band | This filter has good matching and low loss in the pass band |
| Small size, 0.44" X 0.74" X 0.27" | The surface mount package enables the SXBP-1100+ to be used in compact designs. |

Notes

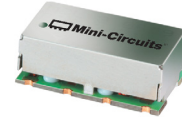
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's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



Surface Mount Bandpass Filter

50Ω 1000 to 1200 MHz

SXBP-1100+



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CASE STYLE: HF1139

Features

- Fast roll-off on the upper side band
- Good matching in the pass band
- Miniature shielded package

Applications

- Aviation and Aeronautical
- Aeronautical radio navigation
- Radar systems
- Navigation systems

Electrical Specifications at 25°C

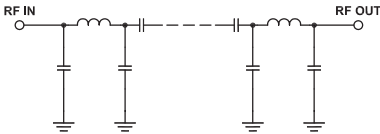
| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------|------------------|-----------------|-----------|------|------|------|
| Pass Band | Center Frequency | - | - | 1100 | - | MHz |
| | Insertion Loss | F1-F2 | 1000-1200 | 1.0 | 2.0 | dB |
| | VSWR | F1-F2 | 1000-1200 | 1.3 | 2.3 | :1 |
| Stop Band, Lower | Insertion Loss | DC-F3 | DC-20 | 20.0 | 30.0 | dB |
| | VSWR | DC-F3 | DC-20 | 20.0 | - | :1 |
| Stop Band, Upper | Insertion Loss | F4-F5 | 1500-2200 | 20.0 | 29.0 | dB |
| | VSWR | F4-F5 | 1500-2200 | 20.0 | - | :1 |

Maximum Ratings

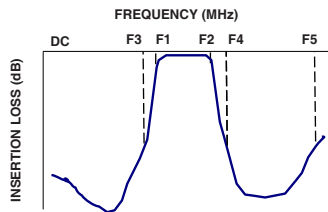
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 2 W max. |

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

Functional Schematic



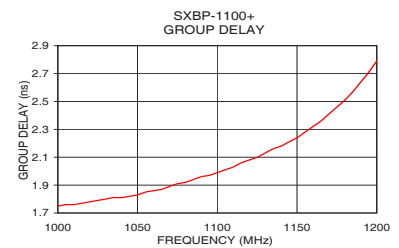
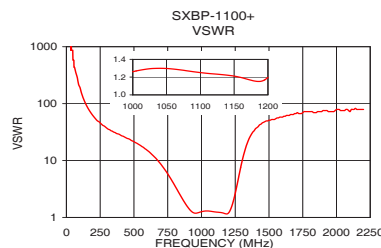
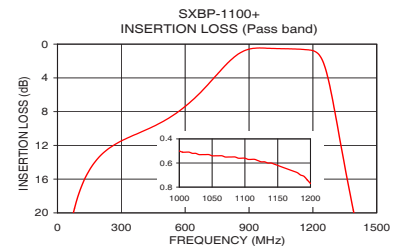
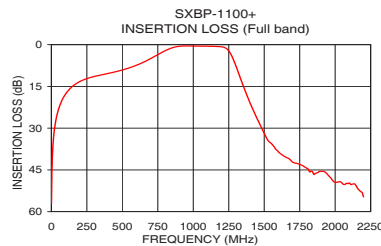
Typical Frequency Response



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|-----------|-----------------|--------------------|
| 1 | 57.02 | 1737.18 | 1000 | 1.75 |
| 5 | 43.13 | 1737.18 | 1020 | 1.78 |
| 20 | 31.10 | 1737.18 | 1030 | 1.80 |
| 70 | 20.52 | 347.44 | 1040 | 1.81 |
| 150 | 14.93 | 91.43 | 1050 | 1.83 |
| 600 | 7.38 | 15.00 | 1060 | 1.86 |
| 750 | 3.59 | 5.83 | 1070 | 1.89 |
| 830 | 1.54 | 2.79 | 1080 | 1.92 |
| 880 | 0.76 | 1.76 | 1090 | 1.96 |
| 1000 | 0.50 | 1.26 | 1100 | 1.99 |
| 1100 | 0.56 | 1.25 | 1110 | 2.03 |
| 1200 | 0.77 | 1.20 | 1120 | 2.08 |
| 1235 | 1.46 | 1.90 | 1130 | 2.13 |
| 1265 | 3.43 | 3.87 | 1140 | 2.18 |
| 1300 | 7.58 | 9.58 | 1150 | 2.24 |
| 1360 | 15.82 | 26.33 | 1160 | 2.32 |
| 1400 | 20.90 | 36.20 | 1170 | 2.41 |
| 1500 | 31.84 | 51.10 | 1180 | 2.51 |
| 1750 | 43.02 | 69.49 | 1190 | 2.64 |
| 2200 | 54.70 | 78.97 | 1200 | 2.79 |

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