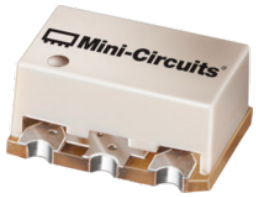
Surface Mount

Bandpass Filter

SYBP-1950+

50Ω 1700 to 2200 MHz



Generic photo used for illustration purposes only

CASE STYLE: TT1423

The Big Deal

- Small size (0.25" X 0.31" X 0.15")
- Excellent power handling, 10 W
- Low insertion loss, 1.2 dB typ.

Product Overview

SYBP-1950+ is a 50Ω bandpass filter fabricated using SMT technology. The bandpass filter covers from 1700 to 2200 MHz offering low insertion loss and good matching within the passband. It is fabricated in a tiny housing with very good power handling capabilities.

Key Features

Feature	Advantages
Small size (0.25" X 0.31" X 0.15")	Saves space in dense circuit board layouts.
Excellent power handling, 10 W	Supports a wide range of system power requirements.
Low insertion loss, 1.2 dB typ.	Low insertion loss enables usage in satellite transmitters.

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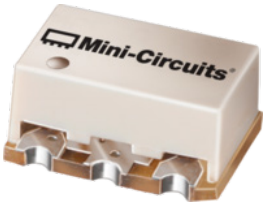


Generic photo used for illustration purposes only
CASE STYLE: TT1423

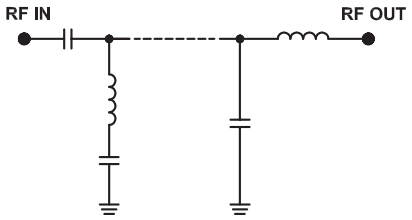
Features

- Excellent power handling
- Small size
- Temperature stable

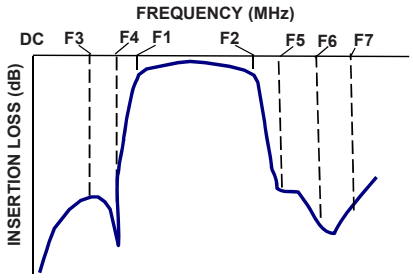
Applications

- Military radio
- Lab use
- Satellite communication

Functional Schematic



Typical Frequency Response



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

Electrical Specifications at 25°C

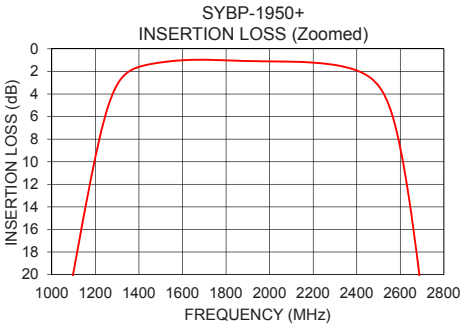
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center frequency	-	-	-	1950	-	MHz
	Insertion Loss	F1-F2	1700 - 2200	-	1.2	2.2	dB
	VSWR	F1-F2	1700 - 2200	-	1.9	-	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 880	30	39	-	dB
		F3-F4	880 - 1030	20	26	-	dB
	VSWR	DC-F4	DC - 1030	-	29	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	2900 - 4000	20	28	-	dB
		F6-F7	4000 - 4600	-	20	-	dB
	VSWR	F5-F7	2900 - 4600	-	23	-	:1

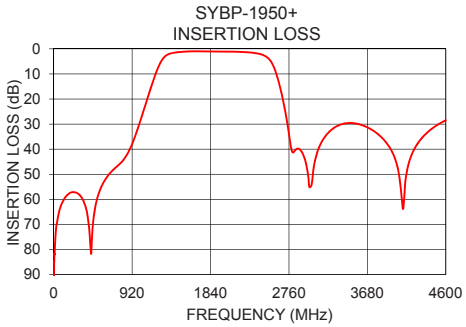
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10 W max. at 25°C

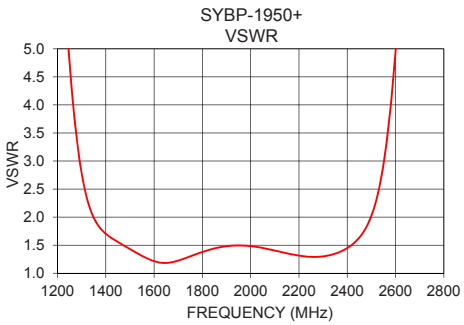
*Passband rating, derate linearly to 3.75 W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	81.78	386.31
100	61.33	626.21
200	57.33	686.16
250	57.20	552.76
800	45.00	64.90
880	40.90	51.78
1000	30.40	35.57
1030	27.25	31.55
1090	20.82	23.13
1300	3.18	2.39
1700	0.97	1.35
1950	1.10	1.54
2200	1.22	1.27
2490	3.04	1.50
2690	20.43	6.36
2750	31.68	8.77
2900	40.53	13.34
3000	55.15	14.52
4000	43.40	16.96
4600	28.46	26.27







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