

Surface Mount Bandpass Filter

SYBP-1275+

50Ω

1100 to 1450 MHz



Generic photo used for illustration purposes only
CASE STYLE: TT1423

The Big Deal

- Small size (0.25" X 0.31" X 0.15")
- High power handling, 8 W
- Low insertion loss, 1.6 dB typ.

Product Overview

SYBP-1275+ is a 50Ω bandpass filter fabricated using SMT technology. The bandpass filter covers from 1100 to 1450 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.
High power handling, 8 W	Supports a wide range of system power requirements.
Low insertion loss, 1.6 dB typ.	Low insertion loss enables usage in satellite transmitters.

Notes

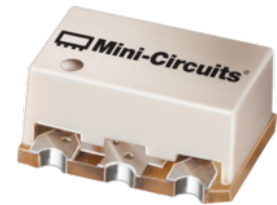
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Bandpass Filter

50Ω 1100 to 1450 MHz

SYBP-1275+



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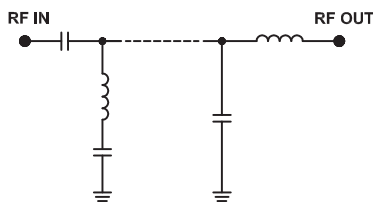
Features

- High power handling
- Small size
- Temperature stable

Applications

- Military radio
- Lab use
- Satellite communication

Functional Schematic



Electrical Specifications at 25°C

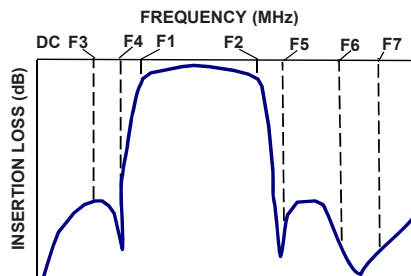
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	1275	-	MHz
	Insertion Loss	F1-F2	-	1.6	2.5	dB
	VSWR	F1-F2	-	1.9	-	:1
Stop Band, Lower	Insertion Loss	DC-F3	30	38	-	dB
		F3-F4	20	28	-	dB
	VSWR	DC-F4	-	28	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	20	30	-	dB
		F6-F7	-	25	-	dB
	VSWR	F5-F7	-	19	-	:1

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8 W max. at 25°C

*Passband rating, derate linearly to 3 W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Typical Frequency Response

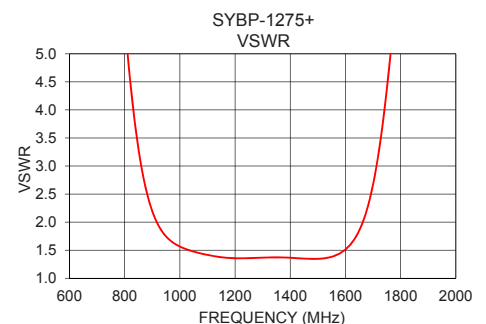
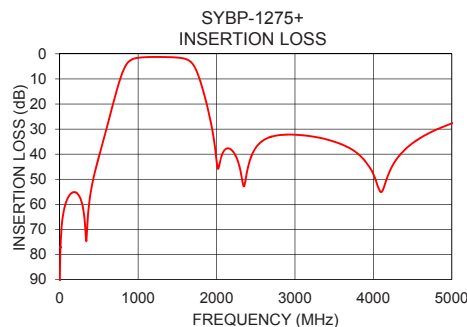
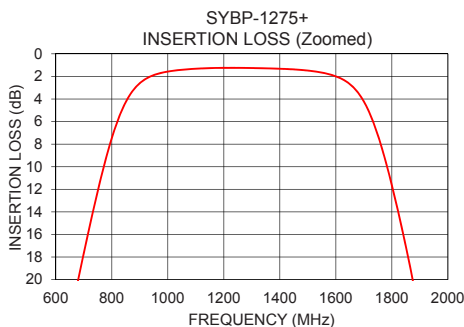


+RoHS Compliant

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)
10	77.26	390.02
100	57.65	568.03
200	55.17	321.04
250	56.75	220.58
500	40.97	50.77
600	29.46	32.29
675	20.58	21.26
880	3.11	2.44
1100	1.32	1.48
1275	1.25	1.46
1450	1.38	1.40
1665	3.02	1.92
1875	20.08	11.90
1950	31.10	15.29
2050	42.24	16.54
2500	37.44	10.56
3000	32.25	27.21
3700	37.64	49.27
4000	47.99	52.12
5000	27.74	46.57



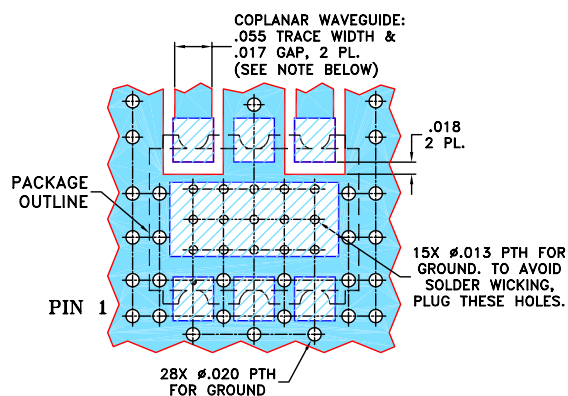
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INPUT	4
OUTPUT	6
GROUND	1,2,3,5


SUGGESTED MOUNTING CONFIGURATION
FOR TT1423 CASE STYLE "06FL04" PIN CONNECTION




1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B
WITH THICKNESS .030" \pm .002"; COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

 DENOTES PCB COPPER LAYOUT WITH SMOBC
 (SOLDER MASK OVER BARE COPPER)

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Suggested Layout,
Tolerance to be within $\pm .002$

 METALLIZATION
 SOLDER RESIST

A	B	C	D	E	F	G	H
.25	.31	.15	.090	.040	.065	.060	.065
6.35	7.87	3.81	2.29	1.02	1.65	1.52	1.65
J	K	L	N	Q			wt.
.300	.060	.060	.105	.070			grams
7.62	1.52	1.52	2.67	1.78			0.50

Note: Please refer to case style drawing for details

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