

Coaxial Bandpass Filter

ZABP-670-S+

50Ω 470 to 870 MHz

The Big Deal

- High rejection
- Good VSWR
- Connectorized package



Generic photo used for illustration purposes only
CASE STYLE: UU1842

Product Overview

ZABP-670-S+ is a 50Ω bandpass filter with a rugged connectorized package covering the passband of 470 to 870 MHz. The bandpass filter offers good matching within the passband and provides high rejection. This filter has miniature high Q capacitors and wire welded inductors for high reliability. It has repeatable performance across lots and consistent performance across temperature.

Key Features

Feature	Advantages
High rejection	ZABP-670-S+ has sharper transition and rejects spurious signals in the stopband.
Good VSWR	This filter maintains typical VSWR over passband frequency range making this filter easier to integrate into receiver and transmitter RF chains with less concerns for in band frequency ripple.
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.
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Bandpass Filter

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50Ω 470 to 870 MHz



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Connectors Model
SMA-MF ZABP-670-S+

Features

- High rejection
- Good VSWR, 1.4:1 typical@ passband
- Connectorized package

Applications

- Harmonic rejection
- Transmitters / receivers
- Digital TV
- Test equipment

Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	-	-	670	-	MHz	
	Insertion Loss	F1-F2	470-870	-	2.0	2.8	dB
	VSWR	F1-F2	470-870	-	1.4	1.8	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 280	40	50	-	dB
	VSWR	DC-F4	280-365	20	35	-	dB
Stop Band, Upper	Insertion Loss	F5-F6	DC - 365	-	20	-	dB
	Insertion Loss	F6-F7	DC - 365	-	20	-	dB
	Insertion Loss	F7-F8	965-1200	20	30	-	dB
	VSWR	F5-F8	1200-2000	45	55	-	dB
			2000-3000	-	30	-	dB
			965 - 3000	-	20	-	:1

Maximum Ratings

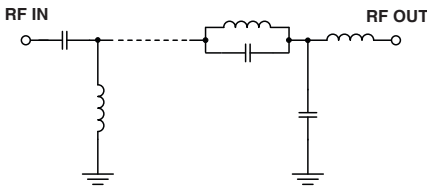
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.7 W max.

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

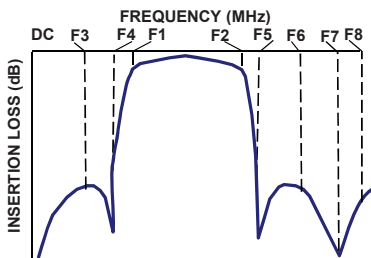
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (ns)
1	87.69	306921.90	470	6.45
100	51.95	1323.38	500	4.77
280	53.74	123.27	520	4.26
365	57.29	50.87	540	3.90
388	30.27	36.10	560	3.65
403	20.44	25.31	580	3.47
425	8.28	8.04	600	3.35
438	3.31	2.82	620	3.28
470	1.05	1.26	640	3.24
670	0.81	1.26	660	3.24
870	1.88	1.17	670	3.24
885	3.33	2.10	700	3.28
932	20.73	15.83	720	3.34
955	30.94	19.44	740	3.44
965	36.14	20.22	760	3.60
1200	50.31	23.63	780	3.85
2000	68.70	24.89	800	4.16
2225	47.73	23.37	820	4.53
2800	48.24	18.97	850	5.53
3000	53.22	22.68	870	7.42

Functional Schematic

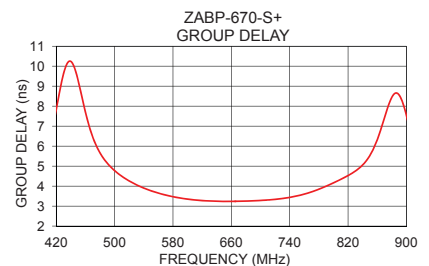
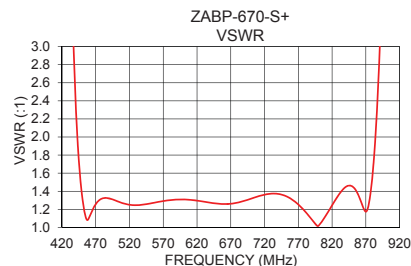
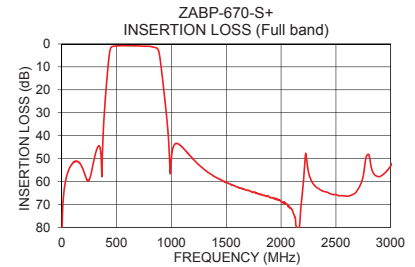
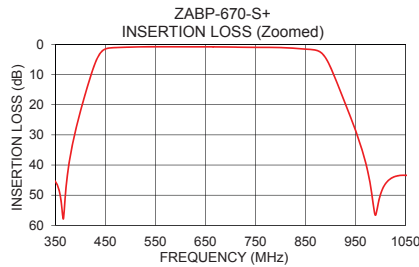


Typical Frequency Response



+RoHS Compliant

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



Notes

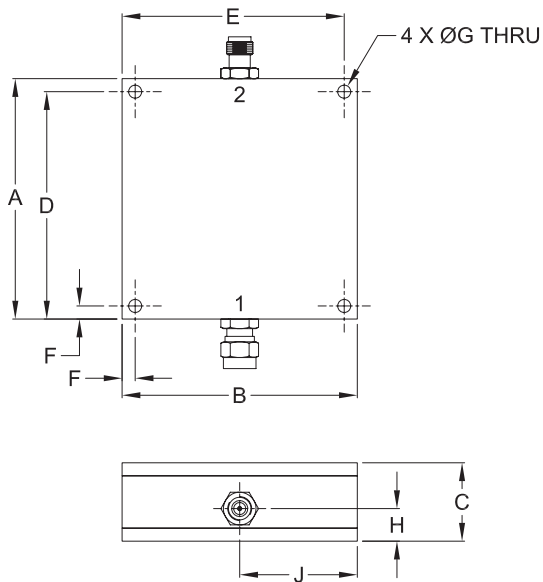
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Coaxial Connections

PORT - 1	SMA-MALE
PORT - 2	SMA-FEMALE

Outline Drawing



Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

A	B	C	D	E
2.300	2.250	.750	2.175	2.125
58.42	57.15	19.05	55.25	53.98
F	G	H	J	wt.
.125	.125	.312	1.125	grams
3.18	3.18	7.93	28.58	124

Note: Please refer to case style drawing for details

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