

Cavity Bandpass Filter

ZVBP-10R5G+

50Ω 9750 to 11250 MHz



CASE STYLE: PV2184

The Big Deal

- Low insertion loss, <0.5dB typical
- Broad Stopband performance upto 18GHz
- Fast roll-off
- Connectorized package
- Small size

Product Overview

ZVBP-10R5G+ is a 50Ω cavity filter for X band. Frequency band of this filter is used in satellite and radar applications..

Key Features

Feature	Advantages
Low loss in passband	This filter has low loss in passband
Sharp rejection	This filter has sharp rejection in transition region due to higher order design
Broad Stopband performance	This filter has broad stopband performance upto 18GHz
Connectorized package and small size	Connectorized package is easy to interface with other devices and well suited for test setups. Package size is so small

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



Bandpass Filter

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CASE STYLE: PV2184
 Connectors Model
SMA-F ZVBP-10R5G-S+
SMA-F

Features

- Low insertion loss, <0.5 dB typical
- Broad Stopband performance upto 18GHz
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- Connectorized package
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Applications

- Satellite
- Radar

Electrical Specifications at 25°C

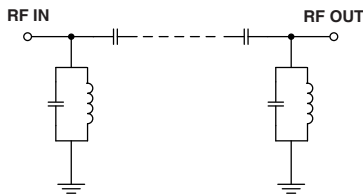
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	-	-	10500	-	MHz	
	Insertion Loss	F1-F2	9750-11250	-	0.5	1.5	dB
	VSWR	F1-F2	9750-11250	-	1.3	1.5	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 5950	40	51	-	dB
	VSWR	DC-F3	DC - 5950	-	40	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	15100-18000	40	45	-	dB
	VSWR	F4-F5	15100-18000	-	7	-	:1

Maximum Ratings

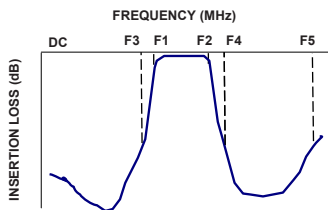
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W max.

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

Functional Schematic



Typical Frequency Response

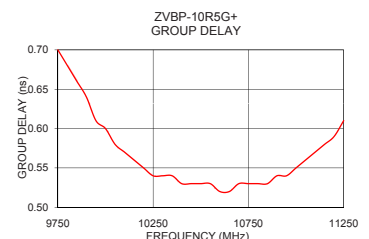
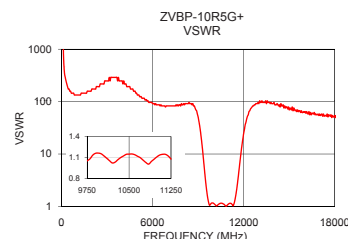
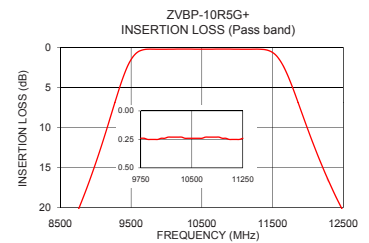
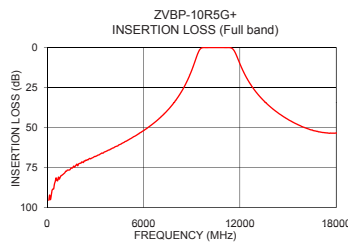


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
100	95.44	1737.18	9750	0.70
500	83.67	173.72	9800	0.68
3000	68.15	248.17	9850	0.66
5950	52.31	96.51	9900	0.64
8200	30.29	91.43	9950	0.61
8800	19.24	75.53	10000	0.60
9400	3.44	5.68	10100	0.57
9450	2.36	4.01	10250	0.54
9750	0.24	1.05	10300	0.54
10500	0.24	1.15	10400	0.53
11250	0.24	1.08	10500	0.53
11650	2.30	3.82	10600	0.52
11700	3.21	5.13	10750	0.53
12500	20.49	75.53	10900	0.54
13200	30.26	102.19	11000	0.55
15100	45.64	72.39	11050	0.56
16000	49.94	62.05	11100	0.57
17000	52.87	57.91	11150	0.58
17500	53.59	57.91	11200	0.59
18000	53.52	54.29	11250	0.61

+RoHS Compliant

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



Notes

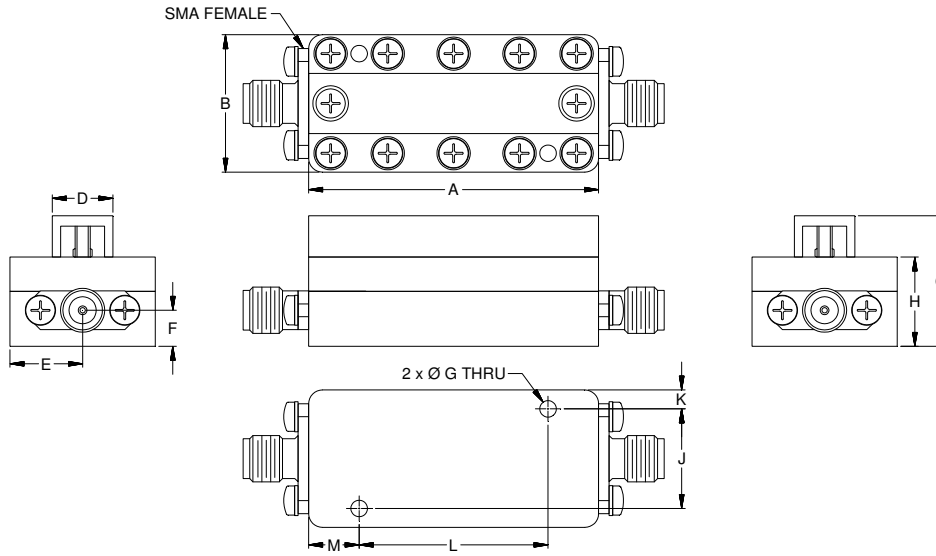
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Coaxial Connections

INPUT	SMA-FEMALE
OUTPUT	SMA-FEMALE

Outline Drawing



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

A	B	C	D	E	F	G
1.65	.79	.75	.35	.41	.21	.095
41.92	20.00	19.00	8.75	10.50	5.25	2.40
H	J	K	L	M		Wt.
.51	.57	.11	1.08	.29		grams
13.00	14.50	2.75	27.31	7.31		78

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