

# 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.  
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# Bandpass Filter

## ZVBP-10R5G+

50Ω 9750 to 11250 MHz



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
- Fast roll-off
- Connectorized package
- Small size

### Applications

- Satellite
- Radar

### Electrical Specifications at 25°C

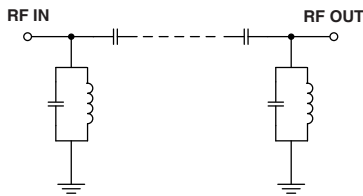
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
<b>Pass Band</b>	Center Frequency	-	-	10500	-	MHz	
	Insertion Loss	F1-F2	9750-11250	-	0.5	1.5	dB
	VSWR	F1-F2	9750-11250	-	1.3	1.5	:1
<b>Stop Band, Lower</b>	Insertion Loss	DC-F3	DC - 5950	40	51	-	dB
	VSWR	DC-F3	DC - 5950	-	40	-	:1
<b>Stop Band, Upper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

### Maximum Ratings

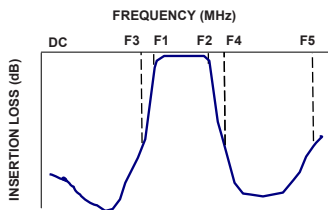
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W max.

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

### Functional Schematic



### Typical Frequency Response

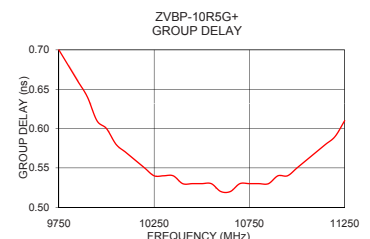
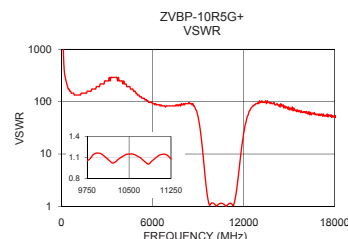
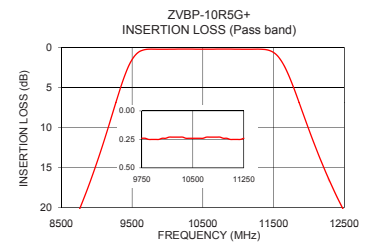
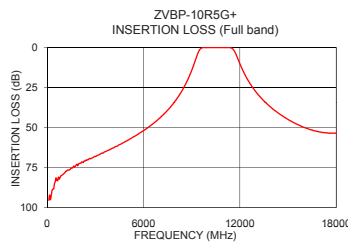


### Typical Performance Data at 25°C

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

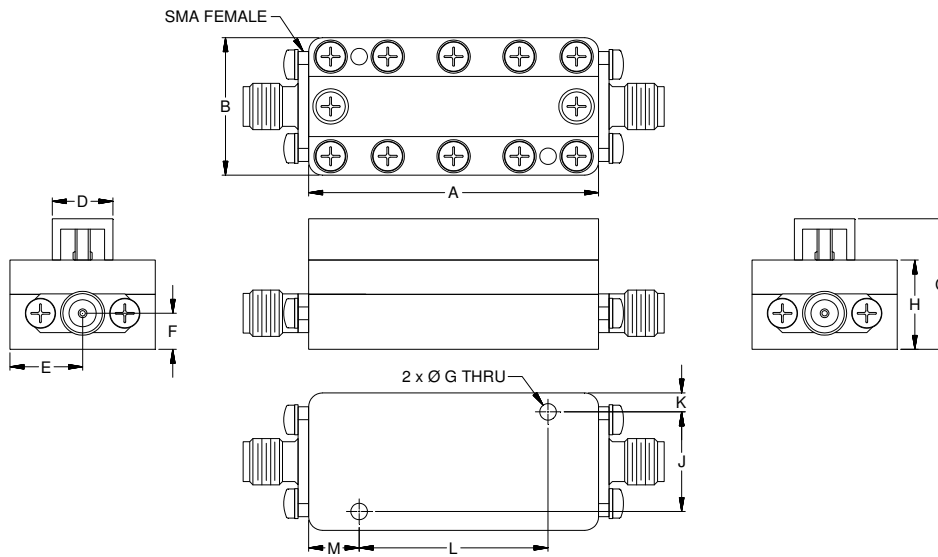
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## Coaxial Connections

INPUT	SMA-FEMALE
OUTPUT	SMA-FEMALE

## Outline Drawing



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

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

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