Cavity **Bandpass Filter**

50Ω 4840 to 4960 MHz

The Big Deal

- Low insertion loss, 1.2 dB typical
- Good VSWR, 1.22:1 typical
- High rejection
- Fast roll-off
- Connectorized package

Product Overview

ZVBP-4900+ is a 50 Ω cavity filter. Frequency band of this filter is used in Wi-Fi applications and telecommunications and broad band.

Key Features

| Feature | Advantages | | | |
|---|--|--|--|--|
| Narrow band width | ZVBP-4900+ is narrow bandwidth filter. 2.45% band width | | | |
| Good matching and low loss in pass band | This filter has good matching and low loss in the pass band | | | |
| Connectorized package | Connectorized package is easy to interface with other devices and well suited for test setups. | | | |

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ZVBP-4900+

Cavity **Bandpass Filter**

50Ω 4840 to 4960 MHz

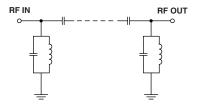
Features

- Low insertion loss, 1.2 dB typical
- Good VSWR, 1.22:1 typical
- High rejection
- · Fast roll-off
- · Connectorized package

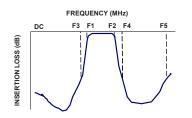
Applications

- · Wi-Fi application
- Telecommunications and broadband
- · Transmitters and receivers

Functional Schematic



Typical Frequency Response





Electrical Specifications at 25°C

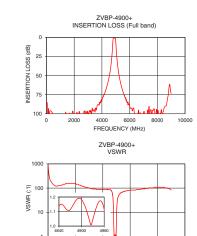
| Parameter | | F# | Frequency (MHz) | Min. | Тур. | Max. | Unit |
|------------------|------------------|-------|-----------------|------|------|------|------|
| | Center Frequency | - | - | - | 4900 | - | MHz |
| Pass Band | Insertion Loss | F1-F2 | 4840-4960 | - | 1.20 | 2.00 | dB |
| | VSWR | F1-F2 | 4840-4960 | - | 1.22 | 1.43 | :1 |
| Stop Band, Lower | Insertion Loss | DC-F3 | DC - 4670 | 20 | 29 | - | dB |
| | VSWR | DC-F3 | DC - 4670 | - | 20 | - | :1 |
| Stop Band, Upper | Insertion Loss | F4-F5 | 5100-9000 | 20 | 28 | - | dB |
| | VSWR | F4-F5 | 5100-9000 | - | 20 | - | :1 |

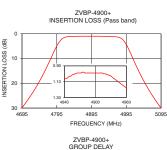
| Maximum | Ratings |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 10 W max. |

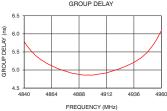
Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

| | Typical Terror | | 1 | |
|--------------------|------------------------|--------------|--------------------|-----------------------|
| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
| 10 | 88.58 | 868.59 | 4840 | 5.79 |
| 500 | 101.01 | 124.09 | 4846 | 5.53 |
| 2000 | 102.54 | 157.93 | 4852 | 5.35 |
| 4400 | 61.56 | 86.86 | 4858 | 5.22 |
| 4670 | 34.13 | 69.49 | 4864 | 5.12 |
| 4690 | 30.78 | 64.35 | 4870 | 5.03 |
| 4740 | 20.47 | 40.41 | 4876 | 4.97 |
| 4776 | 10.54 | 14.62 | 4882 | 4.91 |
| 4802 | 3.34 | 3.25 | 4888 | 4.88 |
| 4840 | 1.07 | 1.13 | 4894 | 4.86 |
| 4900 | 0.99 | 1.18 | 4900 | 4.86 |
| 4960 | 1.18 | 1.12 | 4912 | 4.92 |
| 4990 | 3.24 | 2.84 | 4918 | 4.98 |
| 5006 | 7.47 | 7.25 | 4924 | 5.04 |
| 5030 | 14.85 | 17.93 | 4930 | 5.12 |
| 5050 | 20.26 | 25.94 | 4936 | 5.21 |
| 5096 | 30.18 | 38.61 | 4942 | 5.33 |
| 5100 | 30.92 | 39.49 | 4948 | 5.50 |
| 7500 | 95.27 | 102.19 | 4954 | 5.75 |
| 9000 | 73.32 | 82.73 | 4960 | 6.09 |







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2000

∭Mini-Circuits

4000

6000

FREQUENCY (MHz)

8000

10000

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ZVBP-4900-S+

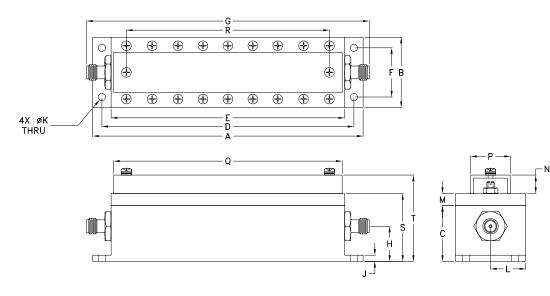
SMA-F

ZVBP-4900+

Coaxial Connections

| INPUT | SMA-FEMALE |
|--------|------------|
| OUTPUT | SMA-FEMALE |

Outline Drawing



Outline Dimensions (inch)

| А | В | С | D | E | | - | н | J | К |
|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------|--------------|
| 4.396 | 1.143 | .906 | 4.096 | 3.796 | .800 | 4.596 | .571 | .100 | .118 |
| 111.66 | 29.03 | 23.01 | 104.04 | 96.42 | 20.32 | 116.74 | 14.50 | 2.54 | 3.00 |
| | | | | | | | | | |
| L | M | N | Р | Q | R | S | Т | | Wt. |
| ∟ 572. | м .197 | N .300 | P .650 | Q 3.716 | R 3.300 | S 1.103 | ⊤ 1.403 | | Wt. grams |

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