*Coaxial*

# Bandpass Filter

## ZABP-16+

50Ω  3 to 30 MHz




CASE STYLE: UU1842

## The Big Deal

- Low insertion loss, 1.5 dB typical
- Good VSWR, 1.43:1 typical
- High rejection
- Fast roll-off
- Connectorized package

## Product Overview

ZBPF-16+ is a 50Ω bandpass filter in a rugged connectorized package covering 3 to 30 MHz. These units offers good matching within the passband and 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 |
|---|---|
| Fast roll-off | Wide bandwidth  filter with fast-roll off, which increases selectivity on the adjacent channel. |
| 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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# Bandpass Filter

50Ω 3 to 30 MHz

# ZABP-16+



CASE STYLE: UU1842

| Connectors | Model |
|---|---|
| **SMA-M\F** | ZABP-16+ |

## Features

- Low insertion loss, 1.5 dB typical
- Good VSWR, 1.43:1 typical
- High rejection
- Fast roll-off
- Connectorized package

## Applications

- CATV networks
- Aerospace and defence
- Digital radio networks

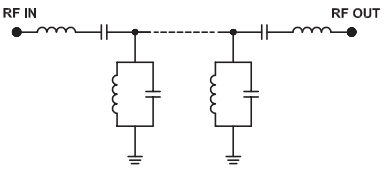
## Electrical Specifications at 25°C

| Parameter | | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| **Pass Band** | Center Frequency | - | - | - | 16 | - | MHz |
| | Insertion Loss | F1-F2 | 3-30 | - | 1.50 | 3.00 | dB |
| | VSWR | F1-F2 | 3-30 | - | 1.43 | 2.32 | :1 |
| **Stop Band, Lower** | Insertion Loss | DC-F3 | DC - 1.4 | 20 | 33 | - | dB |
| | VSWR | DC-F3 | DC - 1.4 | - | 20 | - | :1 |
| **Stop Band, Upper** | Insertion Loss | F4-F5 | 35-1600 | 20 | 32 | - | dB |
| | VSWR | F4-F5 | 35-1600 | - | 20 | - | :1 |

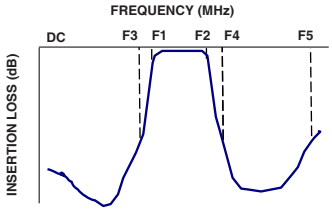
| Maximum Ratings | |
|---|---|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5 W max. |

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

## Functional Schematic




## Typical Frequency Response



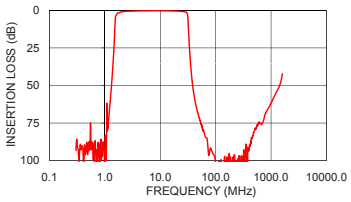

## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|---|---|---|---|---|
| 0.30 | 93.23 | 976.09 | 3.00 | 399.61 |
| 0.50 | 88.76 | 1037.72 | 4.00 | 268.38 |
| 1.00 | 94.61 | 202.49 | 5.00 | 186.50 |
| 1.20 | 67.76 | 97.76 | 6.00 | 145.49 |
| 1.40 | 35.93 | 35.24 | 8.00 | 107.59 |
| 1.43 | 30.38 | 27.55 | 10.00 | 91.53 |
| 1.48 | 19.99 | 14.58 | 12.00 | 83.85 |
| 1.52 | 10.48 | 5.13 | 14.00 | 80.14 |
| 1.62 | 3.13 | 2.27 | 16.00 | 79.14 |
| 3.00 | 0.49 | 1.01 | 18.00 | 79.08 |
| 16.00 | 0.36 | 1.05 | 20.00 | 81.67 |
| 30.00 | 1.54 | 1.34 | 22.00 | 85.43 |
| 31.20 | 3.43 | 2.19 | 23.00 | 87.22 |
| 32.00 | 9.98 | 8.25 | 24.00 | 90.34 |
| 33.10 | 20.51 | 22.25 | 25.00 | 95.65 |
| 34.40 | 30.51 | 35.46 | 26.00 | 102.55 |
| 35.00 | 34.37 | 40.03 | 27.00 | 110.41 |
| 500.00 | 80.16 | 59.46 | 28.00 | 121.17 |
| 1000.00 | 61.65 | 23.96 | 29.00 | 137.25 |
| 1600.00 | 42.23 | 6.62 | 30.00 | 167.56 |

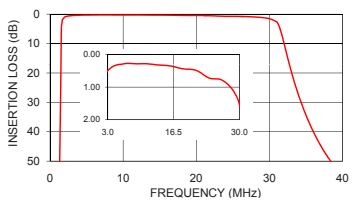
***+RoHS Compliant***

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

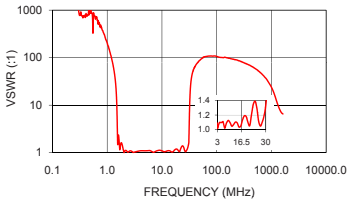
ZABP-16+
INSERTION LOSS (Full band)



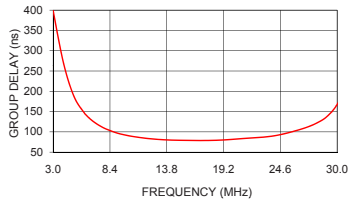

ZABP-16+
INSERTION LOSS (Pass band)




ZABP-16+
VSWR




ZABP-16+
GROUP DELAY



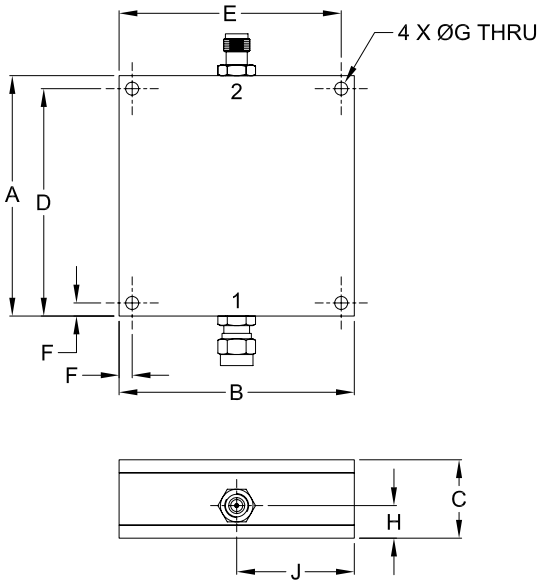

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## Coaxial Connections

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

## Outline Drawing




## Outline Dimensions ( inch / 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 |

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