# Coaxial **Bandpass Filter**

75Ω 950 to 1250 MHz

# **The Big Deal**

- Low insertion loss of typ. 0.8 dB at center frequency
- Stopband up to 3 GHz
- Excellent temperature stability
- Connectorized package



ZFBP-1100-75+

Generic photo used for illustration purposes only CASE STYLE: H16

# Product Overview

ZFBP-1100-75+ is a low loss bandpass filter in a connectorized package covering 950 to 1250 MHz. This offers lower pass band insertion loss and good rejection. It has repeatable performance across lots and consistent performance across temperature.

# **Key Features**

| Feature                              | Advantages   |
|--------------------------------------|--|
| Low insertion loss                   | Lower insertion loss result in better SNR in receiver front end and better power delivery to antenna in transmitter.                   |
| Good VSWR, 1.3:1 typical in passband | This model has very good return loss for this bandwidth and provides good interface when used with other devices                       |
| Excellent stopband rejection         | Spurious rejection and avoids using additional filters.  |
| Connectorized package                | The connectorized packages can easily interface with other devices and well suited for test set-ups.                                   |
| Temperature stability                | Very minimal change in electrical performance across temperature makes these filters suitable for a wide range of operating conditions |

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# Coaxial **Bandpass Filter**

75Ω 950 to 1250 MHz

#### **Features**

- Low insertion loss, 0.8 dB typ.
- Good VSWR, 1.27:1 typ.
- Small connectorized package
- · Broad stopband performance up to 3 GHz





Generic photo used for illustration purposes only CASE STYLE: H16 Connectors Model F-M\F ZFBP-1100-75+ **BRACKET (OPTION "B")** 

### Electrical Specifications at 25°C

#### **Applications**

- · Cable / CATV & broadband fiber networks
- Radio navigation satellite
- Radio astronomy

#### **Functional Schematic**



#### **Typical Frequency Response**





| Paran                           | neter            | F#    | Frequency (MHz) | Min. | Typ. Max. |      | Unit |
|---------------------------------|------------------|-------|-----------------|------|-----------|------|------|
| Pass Band                       | Center Frequency | -     | -               | -    | 1100      | -    | MHz  |
|                                 | 3 dB Bandwidth   | -     | -               | 300  | -         | -    | MHz  |
|                                 | Insertion Loss   | F1    | 1100            | -    | 0.8       | 1.5  | dB   |
|                                 | VSWR             | F1    | 1100            | -    | 1.27      | 1.67 | :1   |
| Stop Band, Lower Insertion Loss |                  | DC-F2 | DC - 750        | 20   | 33.8      | -    | dB   |
| Stop Band, Upper                | Insertion Loss   | F3-F4 | 1450 - 3000     | 20   | 25.1      | -    | dB   |
|                                 |                  |       |                 |      |           |      |      |

| Maximum Ratings       |                |  |  |  |  |
|-----------------------|----------------|--|--|--|--|
| Operating Temperature | -40°C to 85°C  |  |  |  |  |
| Storage Temperature   | -55°C to 100°C |  |  |  |  |
| RF Power Input        | 1 W Max @25°C. |  |  |  |  |

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

| Typical Performance Data at 25°C |                        |              |                    |                     |  |
|----------------------------------|------------------------|--------------|--------------------|---------------------|--|
| Frequency<br>(MHz)               | Insertion Loss<br>(dB) | VSWR<br>(:1) | Frequency<br>(MHz) | Group Delay<br>(ns) |  |
| 10                               | 67.29                  | 6340.07      | 950                | 2.94                |  |
| 50                               | 53.91                  | 3069.22      | 965                | 2.84                |  |
| 100                              | 48.39                  | 418.09       | 980                | 2.75                |  |
| 300                              | 47.39                  | 53.49        | 995                | 2.68                |  |
| 500                              | 54.40                  | 44.12        | 1010               | 2.62                |  |
| 750                              | 28.23                  | 26.61        | 1025               | 2.58                |  |
| 770                              | 19.99                  | 21.73        | 1040               | 2.54                |  |
| 832                              | 3.03                   | 2.91         | 1055               | 2.52                |  |
| 950                              | 0.74                   | 1.18         | 1070               | 2.51                |  |
| 1000                             | 0.71                   | 1.20         | 1085               | 2.50                |  |
| 1100                             | 0.76                   | 1.28         | 1100               | 2.51                |  |
| 1200                             | 0.81                   | 1.12         | 1115               | 2.53                |  |
| 1250                             | 0.94                   | 1.04         | 1130               | 2.55                |  |
| 1326                             | 3.03                   | 2.92         | 1145               | 2.58                |  |
| 1424                             | 20.16                  | 23.30        | 1160               | 2.62                |  |
| 1450                             | 25.70                  | 27.44        | 1175               | 2.68                |  |
| 1470                             | 30.09                  | 29.98        | 1190               | 2.75                |  |
| 2000                             | 49.42                  | 102.30       | 1210               | 2.86                |  |
| 2500                             | 36.91                  | 78.50        | 1230               | 3.01                |  |
| 3000                             | 39.20                  | 35.04        | 1250               | 3.23                |  |





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#### **Coaxial Connections**

| PORT - 1 | F-MALE   |
|----------|----------|
| PORT - 2 | F-FEMALE |

#### **Outline Drawing**

STANDARD









OPTION "B" Μ

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### Outline Dimensions ( inch )

| А     | В     | С     | D     | E     | F     | G    | н     |
|-------|-------|-------|-------|-------|-------|------|-------|
| 1.25  | 1.25  | .75   | .63   | .38   | 1.000 | .125 | 1.000 |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65  | 25.40 | 3.18 | 25.40 |
|       |       |       |       |       |       |      |       |
| J     | K     | L     | M     | N     | Р     | Q    | wt    |
|       |       | .125  | 1.688 | 2.18  | .750  | .06  | grams |
|       |       | 0.40  | 40.00 | EE 07 | 10.05 | 4 50 | 70.0  |

Note: Please refer to case style drawing for details

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