

Coaxial

# Bandpass Filter

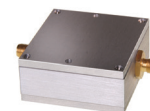
**ZAFBP-2793+**

50Ω

2600 to 3000 MHz

## The Big Deal

- High Rejection, 50 dB typical
- Flat Group delay, 1.2 ns typical
- High power, 12.5 W
- Good VSWR, 1.5:1 typical



CASE STYLE: CC1397

## Product Overview

ZABPF-2793+ is a 50Ω filter built into a rugged shielded case (size: 2.00" x 2.00" x 0.75") case. Covering a bandwidth of 2600 MHz to 3000 MHz, this filter offers good matching in the passband and high rejection in the stopband. Power handling capacity is as high as 12.5W at 25°C.

## Key Features

| Feature                                                                                                  | Advantages                                                                                    |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| High rejection (50 dB typical on lower side band and > 35 dB rejection till 6000 MHz on upper side band) | This enables the filter to attenuate sub harmonics and spurious signals.                      |
| Flat group delay characteristics (1.2 ns typical)                                                        | The model has a group delay flatness of 1.2 ns which helps in reducing the signal distortion. |
| High power (12.5W)                                                                                       | Suitable for base station and long-haul applications and test labs.                           |
| Good VSWR (1.5:1 typical over passband)                                                                  | This provides good matching when used with other devices.                                     |

### 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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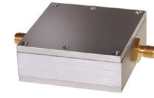


# Bandpass Filter

50Ω

2600 to 3000 MHz

ZAFBP-2793+



CASE STYLE: CC1397

Connectors      Model  
**SMA-FEMALE**    ZAFBP-2793-S+

## Features

- High rejection, 50 dB typical
- Flat group delay over passband, 1.2 ns typical
- Good VSWR, 1.5:1 typical in passband
- Rugged shielded case

## Applications

- Harmonic rejection
- Transmitters / receivers
- Lab use

## Electrical Specifications at 25°C

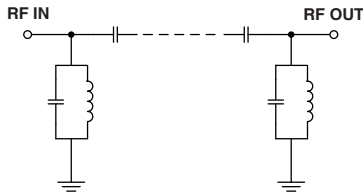
| Parameter        | F#               | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------|------------------|-----------------|------|------|------|------|
| Pass Band        | Center Frequency | —               | —    | 2793 | —    | MHz  |
|                  | Insertion Loss   | F1-F2           | —    | 4.0  | 6.0  | dB   |
|                  | VSWR             | F1-F2           | —    | 1.5  | 1.8  | :1   |
| Stop Band, Lower | Insertion Loss   | DC-F3           | 20   | 29   | —    | dB   |
|                  | VSWR             | DC-F3           | —    | 31   | —    | :1   |
| Stop Band, Upper | Insertion Loss   | F4-F5           | 20   | 30   | —    | dB   |
|                  | VSWR             | F4-F5           | —    | 11   | —    | :1   |

## Maximum Ratings

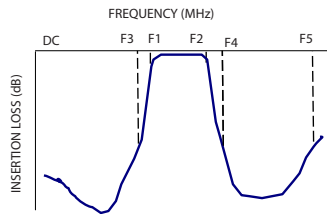
|                       |                    |
|-----------------------|--------------------|
| Operating Temperature | -55°C to 100°C     |
| Storage Temperature   | -55°C to 100°C     |
| RF Power Input*       | 12.5W max. at 25°C |

\* Derate linearly to 4.5W at 100°C ambient.  
 Permanent damage may occur if any of these limits are exceeded.

## Functional Schematic



## Typical Frequency Response

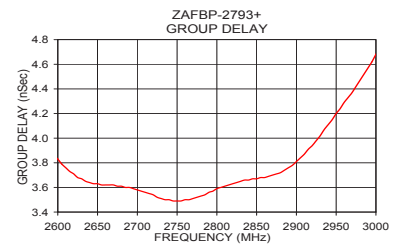
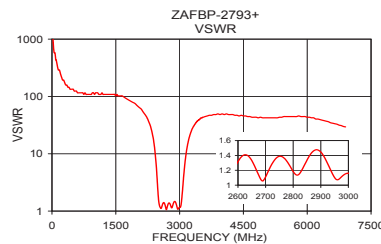
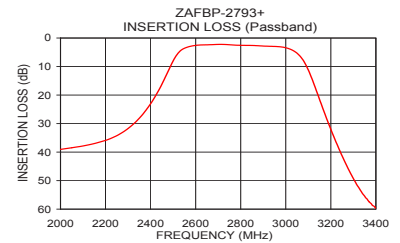
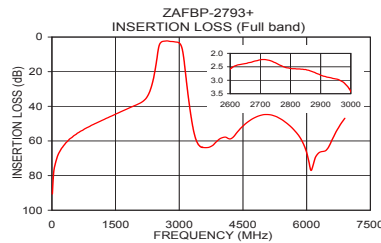


## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|-----------|-----------------|--------------------|
| 10.0            | 89.54               | 1737.18   | 2600.0          | 3.83               |
| 1000.0          | 49.69               | 108.58    | 2620.0          | 3.71               |
| 1800.0          | 40.64               | 86.86     | 2640.0          | 3.64               |
| 2300.0          | 29.58               | 32.79     | 2660.0          | 3.62               |
| 2440.0          | 13.42               | 7.83      | 2680.0          | 3.61               |
| 2490.0          | 5.91                | 2.25      | 2700.0          | 3.58               |
| 2550.0          | 3.01                | 1.14      | 2720.0          | 3.54               |
| 2600.0          | 2.58                | 1.32      | 2740.0          | 3.50               |
| 2793.0          | 2.70                | 1.23      | 2780.0          | 3.53               |
| 2950.0          | 3.24                | 1.10      | 2793.0          | 3.57               |
| 3000.0          | 4.46                | 1.16      | 2800.0          | 3.59               |
| 3065.0          | 10.30               | 2.13      | 2820.0          | 3.63               |
| 3110.0          | 19.18               | 5.30      | 2840.0          | 3.66               |
| 3160.0          | 29.93               | 10.89     | 2860.0          | 3.68               |
| 3200.0          | 37.78               | 15.96     | 2880.0          | 3.72               |
| 3280.0          | 50.76               | 25.56     | 2900.0          | 3.81               |
| 3500.0          | 60.74               | 41.37     | 2920.0          | 3.94               |
| 5500.0          | 50.51               | 44.55     | 2960.0          | 4.29               |
| 6000.0          | 71.49               | 43.44     | 2980.0          | 4.47               |
| 7400.0          | 31.82               | 22.00     | 3000.0          | 4.68               |

## +RoHS Compliant

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



## Notes

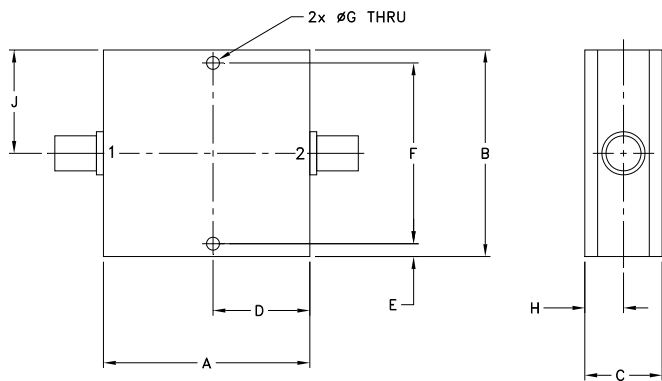
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Coaxial Connections

|        |                |
|--------|----------------|
| INPUT  | 1 (SMA female) |
| OUTPUT | 2 (SMA female) |

Outline Drawing



Outline Dimensions ( <sup>inch</sup>/<sub>mm</sub> )

|       |       |       |       |      |       |
|-------|-------|-------|-------|------|-------|
| A     | B     | C     | D     | E    | F     |
| 2.00  | 2.00  | .75   | .938  | .13  | 1.750 |
| 50.80 | 50.80 | 19.05 | 23.83 | 3.30 | 44.45 |
| G     | H     | J     |       |      | wt    |
| .125  | .38   | 1.00  |       |      | grams |
| 3.18  | 9.65  | 25.40 |       |      | 100.0 |

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