



Mini-Circuits

(CERAMIC RESONATOR) COAXIAL

Bandpass Filter

ZCBP4-434-75-F+

75Ω 433 to 435 MHz F Female/Male

KEY FEATURES

- Narrow Band Design with Fast Roll-off
- High Rejection, 70 dB Typ.
- Good Insertion Loss, 3.8 dB Typ.

APPLICATIONS

- Cable TV
- ISM Band
- Medical Communication

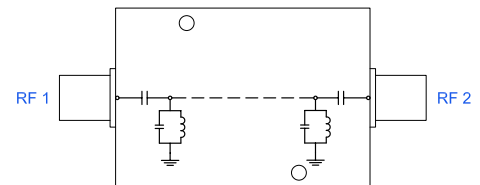
PRODUCT OVERVIEW

All our coaxial-ceramic resonator filters are built with rugged construction. Excellent repeatability across units is achieved through precise tuning and process control.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS¹ AT +25°C

| Parameter | | F# | Frequency (MHz) | Min. | Typ. | Max. | Units |
|-----------------|------------------|-------|-----------------|------|------|------|-------|
| Passband | Center Frequency | — | — | — | 434 | — | MHz |
| | Insertion Loss | F1-F2 | 433 - 435 | — | 3.8 | 4.5 | dB |
| | Return Loss | F1-F2 | 433 - 435 | 12 | 16 | — | dB |
| Stopband, Lower | Rejection | DC-F3 | DC - 380 | 60 | 70 | — | dB |
| | | F3-F4 | 380 - 423 | 20 | 29 | — | |
| Stopband, Upper | Rejection | F5-F6 | 444 - 500 | 20 | 27 | — | dB |
| | | F6-F7 | 500 - 1000 | 55 | 70 | — | |

1. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

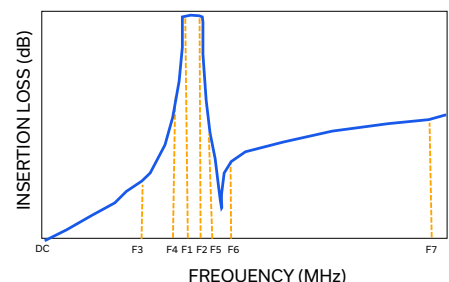
ABSOLUTE MAXIMUM RATINGS²

| Parameter | Ratings |
|--------------------------|-----------------|
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +100°C |
| Input Power ³ | 10 W at +25°C |

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

3. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 2 W at +85°C.

TYPICAL FREQUENCY RESPONSE



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REV. A
ECO-027931
ZCBP4-434-75-F+
EDU5199
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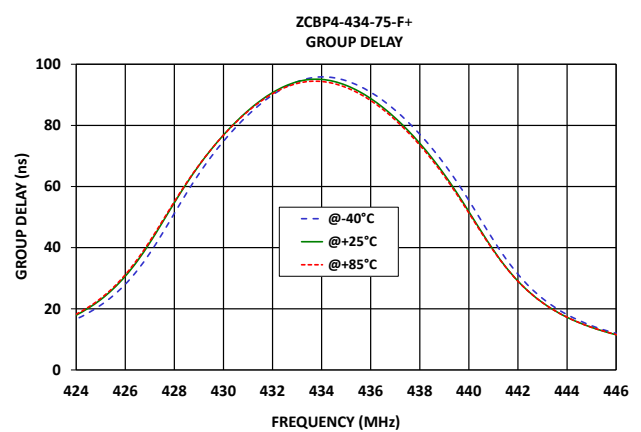
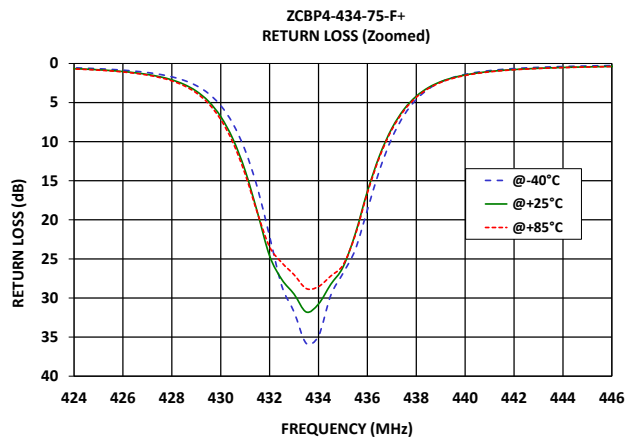
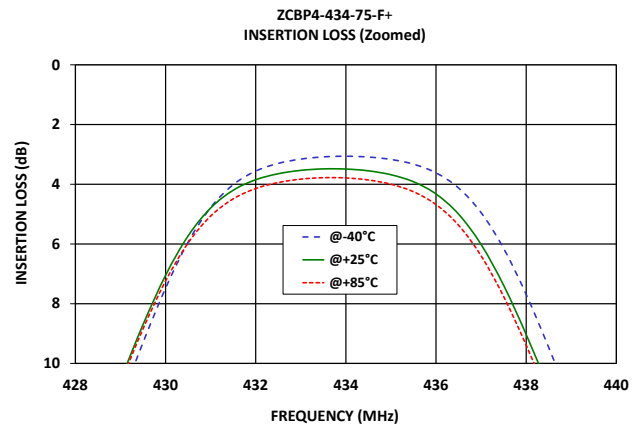
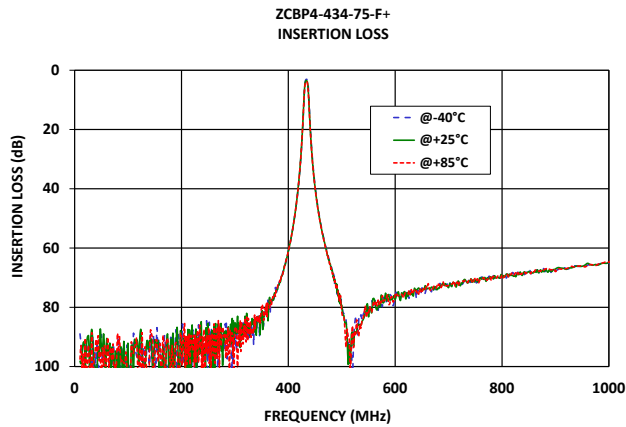
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TYPICAL PERFORMANCE GRAPHS





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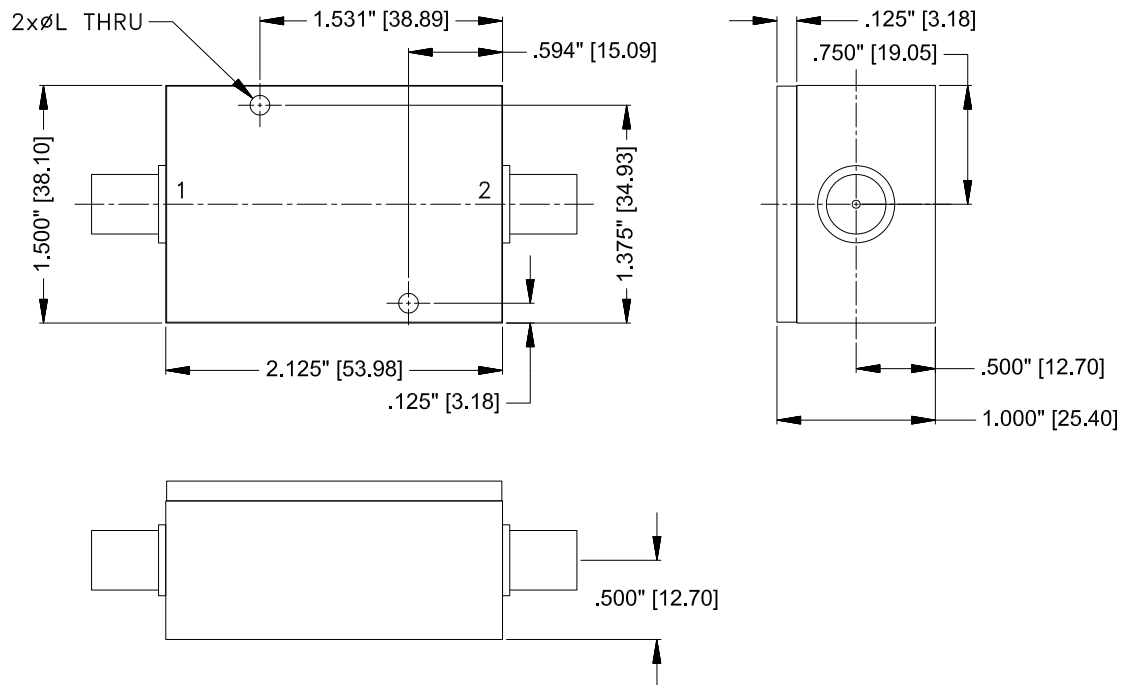
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CONNECTOR DESCRIPTION

| Function | Connector |
|------------------|-----------|
| RF1 ⁴ | F Female |
| RF2 ⁴ | F Male |

4. This filter is bi-directional; RF1 and RF2 ports may be interchanged, see S-parameters for actual performance.

CASE STYLE DRAWING



Weight: 130 grams

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

PRODUCT MARKING*: ZCBP4-434-75-F+

*Marking may contain other features or characters for internal lot control.





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

| | |
|---------------------------|--|
| Performance Data & Graphs | Data |
| | Graphs |
| | S-Parameter (S2P Files) Data Set (.zip file) |
| Case Style | VQ2072 |
| RoHS Status | Compliant |
| Environmental Ratings | ENV125 |

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-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

