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LUMPED LC COAXIAL

# Bandpass Filter

**ZX75BP-135-S+**50 $\Omega$  120 to 150 MHz SMA-Male to SMA-Female

## KEY FEATURES

- Good Insertion Loss, 3.5dB Max.
- Stop Band Return Loss, 18dB Typ.
- Stop Band Rejection, 30dB Typ.



Generic photo used for illustration purposes only

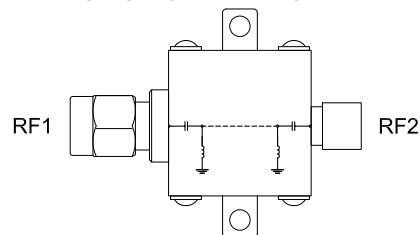
## APPLICATIONS

- Harmonic Rejection
- Aircraft Communication

## PRODUCT OVERVIEW

ZX75BP-135-S+ is a 50 $\Omega$  bandpass filter in a connectorized package covering 120 to 150MHz. This offers good matching within the passband and high rejection in stopband.

## FUNCTIONAL DIAGRAM



## ELECTRICAL SPECIFICATIONS<sup>1</sup> AT +25°C

| Parameter                           |                  | F#    | Frequency (MHz) | Min. | Typ. | Max. | Units |
|-------------------------------------|------------------|-------|-----------------|------|------|------|-------|
| Passband                            | Center Frequency | Fc    | —               | —    | 135  | —    | MHz   |
|                                     | Insertion Loss   | F1-F2 | 120 - 150       | —    | —    | 3.5  | dB    |
|                                     | Return Loss      | F1-F2 | 120 - 150       | 11   | 22.7 | —    | dB    |
| Stop Band, Lower                    | Rejection        | DC-F3 | DC - 75         | 35   | —    | —    | dB    |
|                                     |                  | F3-F4 | 75 - 85         | 20   | —    | —    |       |
| Stop Band, Upper                    | Rejection        | F5-F6 | 210 - 245       | 20   | —    | —    | dB    |
|                                     |                  | F6-F7 | 245 - 2000      | 35   | —    | —    |       |
|                                     |                  | F7-F8 | 2000 - 3500     | —    | 30   | —    |       |
| Maximum Deviation from Linear Phase |                  | —     | Fc ± 15         | —    | —    | ±12  | deg   |

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

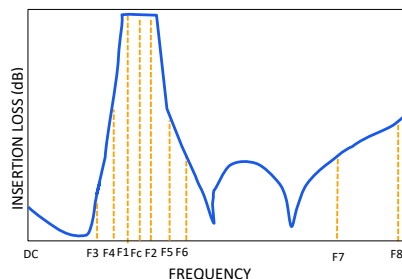
## ABSOLUTE MAXIMUM RATINGS<sup>2</sup>

| Parameter                | Ratings           |
|--------------------------|-------------------|
| Operating Temperature    | -40 °C to +85 °C  |
| Storage Temperature      | -55 °C to +100 °C |
| Input Power <sup>3</sup> | 0.5W 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.

## TYPICAL FREQUENCY RESPONSE AT +25°C



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REV. A  
ECO-019558  
ZX75BP-135-S+  
EDU4623  
URJ  
231012

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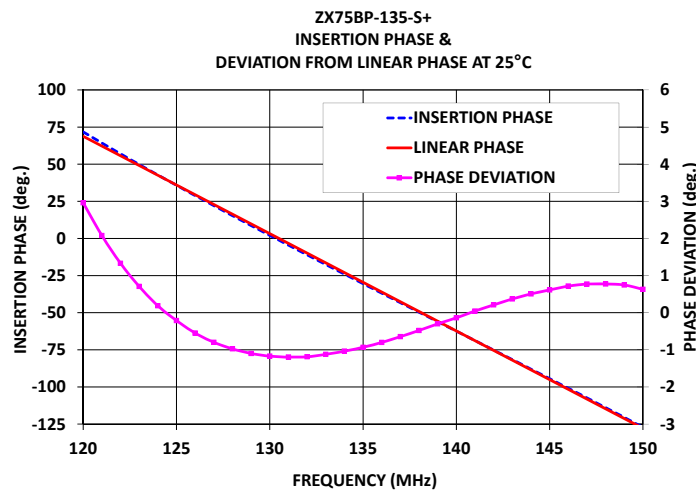
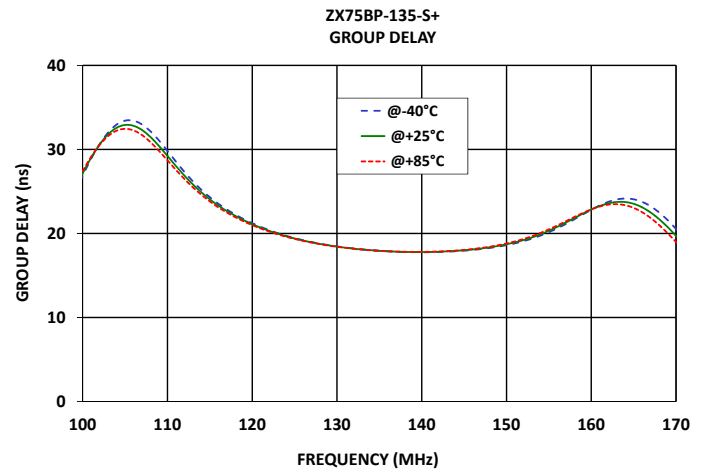
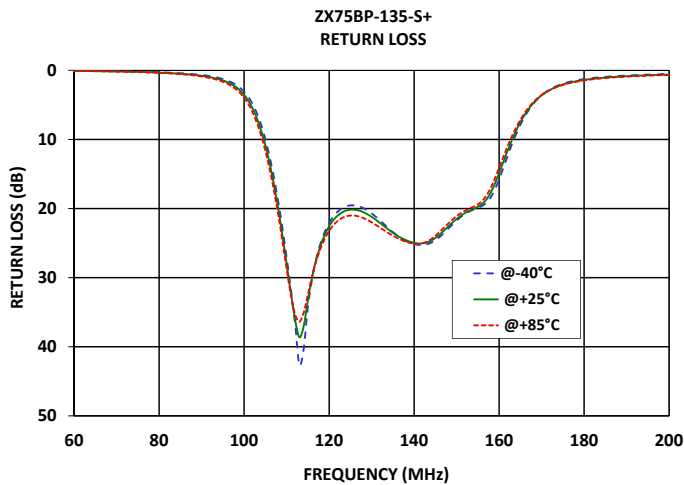
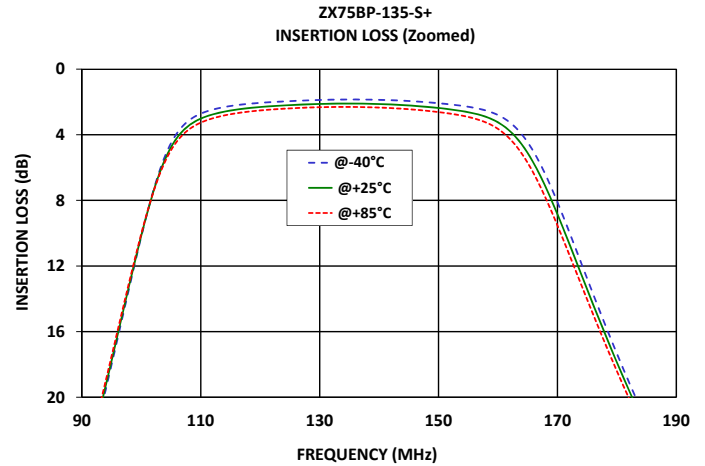
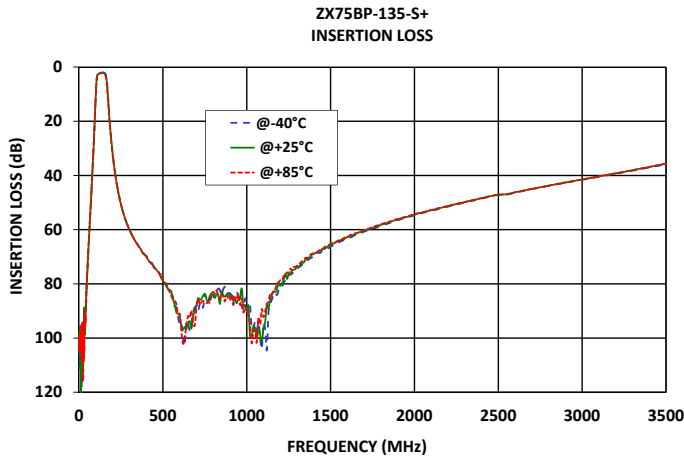
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50Ω 120 to 150 MHz SMA-Male to SMA-Female

## TYPICAL PERFORMANCE GRAPHS



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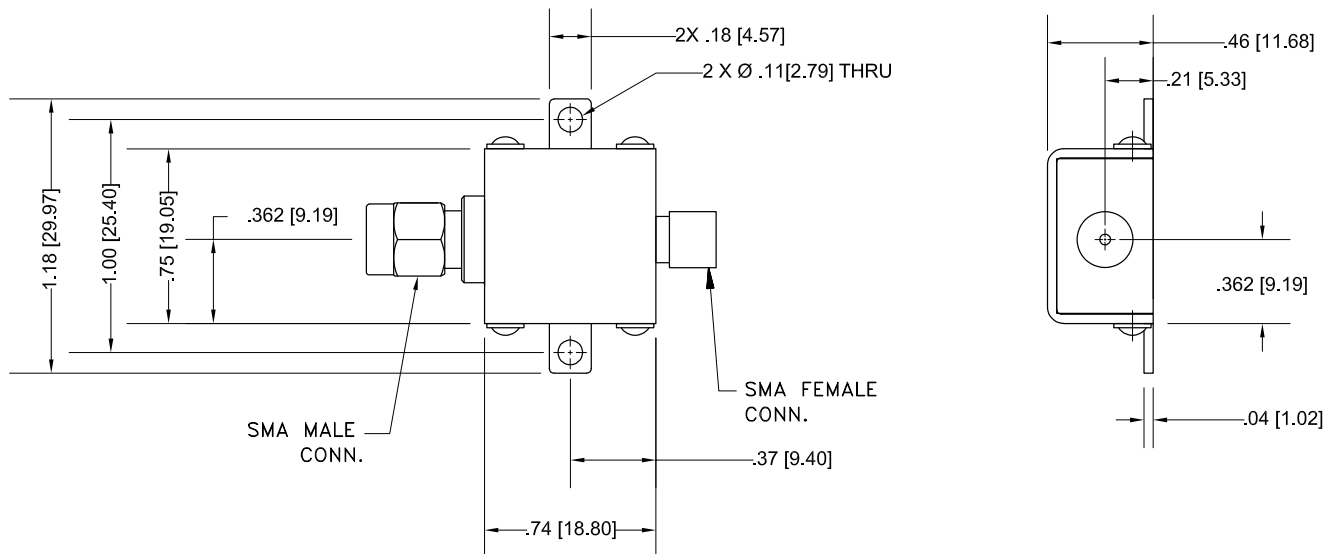
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## CONNECTOR DESCRIPTION

| Function         | Marking on Unit | Connector  |
|------------------|-----------------|------------|
| RF1 <sup>1</sup> | 1               | SMA Male   |
| RF2 <sup>1</sup> | 2               | SMA Female |

## CASE STYLE DRAWING



**Weight: 24.4 gram**

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

**Tolerance on hole size and interaxes dimensions to be ± .005.**

**PRODUCT MARKING\*:** ZX75BP-135-S+

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





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|                           |                                              |
|---------------------------|----------------------------------------------|
| Performance Data & Graphs | Data                                         |
|                           | Graphs                                       |
|                           | S-Parameter (S2P Files) Data Set (.zip file) |
| Case Style                | KE1467                                       |
| RoHS Status               | Compliant                                    |
| Environmental Ratings     | ENV46                                        |

## 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.
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