



THIN FILM COAXIAL

Bandpass Filter

ZABF-K7125+

50Ω 6750 to 7500 MHz 2.92mm Female

KEY FEATURES

- Low Passband Insertion Loss 2.1 dB Typ.
- High Rejection 53 dB Typ.
- Small Size

APPLICATIONS

- Wireless Communication Systems
- Military and Defense
- Test and Measurement

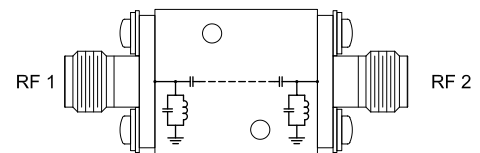


Generic photo used for illustration purposes only

PRODUCT OVERVIEW

Mini-Circuits' Connectorized Thin-Film filters offer low insertion loss and high rejection realized via Thin-Film on Alumina substrate, using a sputtering process that can guarantee an enhanced Q and repeatable performance. Low pass, high pass, and bandpass connectorized thin-film designs can be realized with this technology up to 40 GHz in a small form factor helping customers achieve their SWaP objectives. Using our high quality thin-film manufacturing process we can guarantee repeatability on large batches of filters.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS AT¹ +25°C

| Parameter | | F# | Frequency (MHz) | Min. | Typ. | Max. | Units |
|-----------------|-------------------------------|-------|-----------------|------|------|------|-------|
| Passband | Center Frequency ² | — | — | — | 7125 | — | MHz |
| | Insertion Loss | F1-F2 | 6750 - 7500 | — | 2.1 | 3 | dB |
| | Return Loss | F1-F2 | 6750 - 7500 | — | 12 | — | dB |
| Stopband, Lower | Rejection | DC-F3 | DC - 5250 | 40 | 53 | — | dB |
| | | F3-F4 | 5250 - 5800 | 20 | 37 | — | |
| Stopband, Upper | Rejection | F5-F6 | 8500 - 9000 | 20 | 45 | — | dB |
| | | F6-F7 | 9000 - 13000 | 38 | 46 | — | |
| | | F7-F8 | 13000 - 14000 | — | 40 | — | |

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

2. Typical variation ± 3%

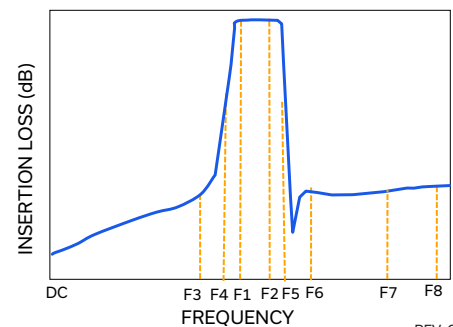
ABSOLUTE MAXIMUM RATINGS³

| Parameter | Ratings |
|--------------------------|-------------------|
| Operating Temperature | -55 °C to +125 °C |
| Storage Temperature | -55 °C to +125 °C |
| Input Power ⁴ | 1W Max. at 25 °C |

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

4. Power rating applies only to signals with in the passband.

TYPICAL FREQUENCY RESPONSE AT +25°C





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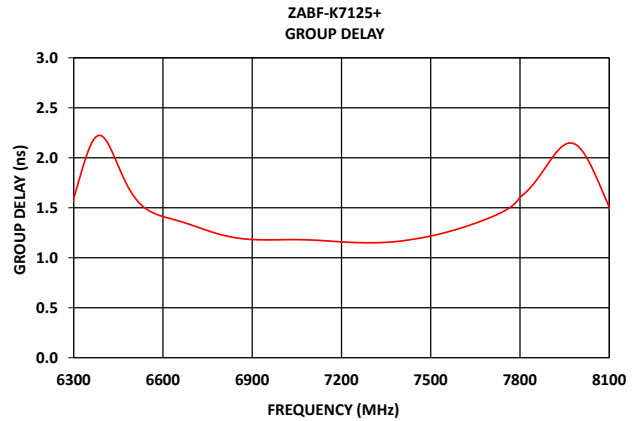
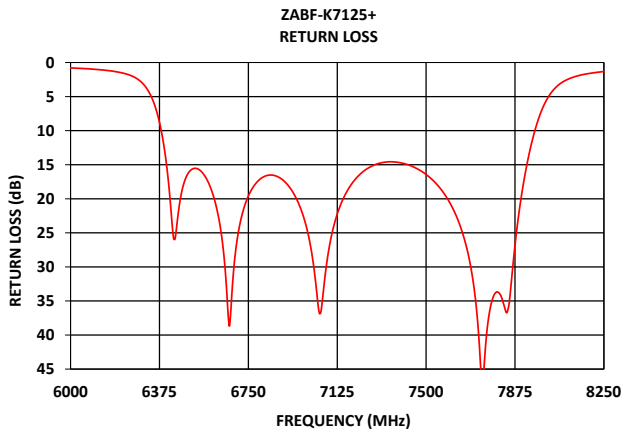
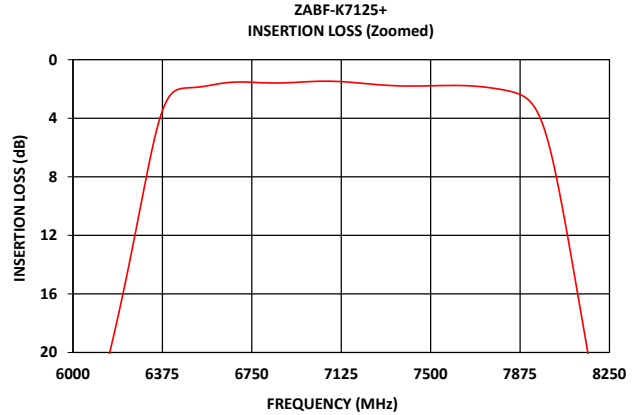
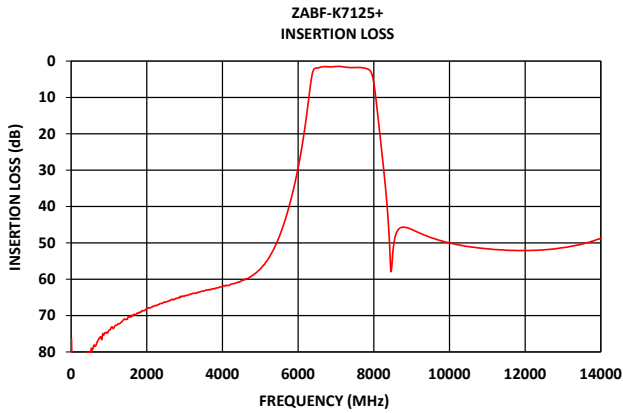
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TYPICAL PERFORMANCE GRAPHS AT +25°C





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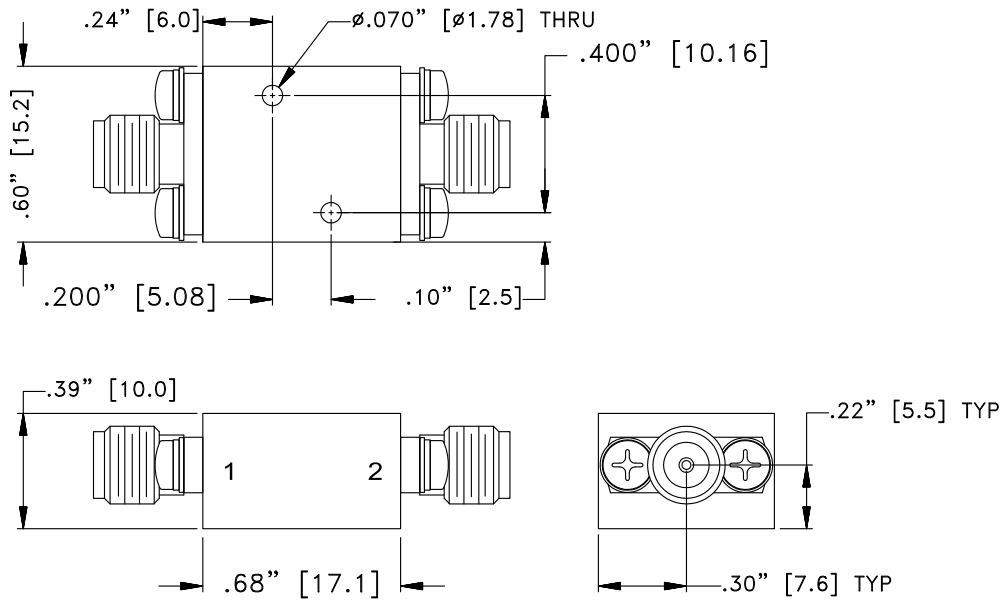
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CONNECTOR DESCRIPTION

| Function | Marking on Unit | Connector |
|------------------|-----------------|---------------|
| RF1 ¹ | 1 | 2.92mm Female |
| RF2 ¹ | 2 | 2.92mm Female |

CASE STYLE DRAWING



Unit weight: 24grams

Dimensions are in inches (mm). Tolerances: 2 Pl.±.050"; 3 Pl.±.015"

PRODUCT MARKING*: ZABF-K7125+

*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 | UK3042 |
| RoHS Status | Compliant |
| Environmental Ratings | ENV144 |

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

