*Coaxial*

# Low Pass Filter

## ZLFV-K1452+

50Ω DC to 14500 MHz

*Generic photo used for illustration purposes only*

CASE STYLE: UK3042

## The Big Deal

- Good power handling, 3.2W
- Temperature stable
- Broadband connectorized package
- Good rejection, 38 dB typical

## Product Overview

ZLFV-K1452+ is a 50Ω low pass filter built in broadband connectorized package. Covering DC-14500 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZLFV-K1452+ offer low insertion loss, and excellent power handling capability. It handles up to 3.2W RF input power and provides a wide operating temperature range from -55°C to 125°C.

## Key Features

| Feature | Advantages |
|---|---|
| Low passband insertion loss | Suitable for high performance application. |
| 3.2W Power handling | Supports a range of system power requirements. |
| Connectorized package | The connectorized package is easy to interface with other devices and well suited for test setups. |

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| Connectors | Model |
|---|---|
| **2.92mm-F** | ZLFV-K1452+ |

***+RoHS Compliant***

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

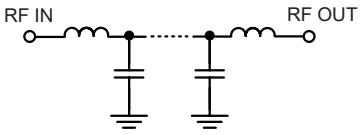
### Features

- Good rejection 38dB typ.
- Good power handling, 3.2W
- Temperature stable

### Applications

- Military radar applications
- Test and measurement
- Telecommunications & broadband wireless applications

### Functional Schematic




### Electrical Specifications at 25°C

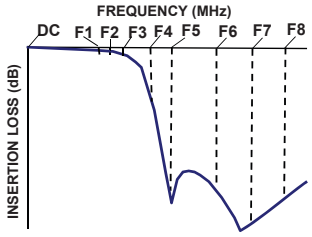
| Parameter | | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| Pass Band | Insertion Loss | DC-F1 | DC - 13800 | — | 1.4 | 2.1 | dB |
| | | F1-F2 | 13800 - 14500 | — | 2.0 | — | dB |
| | Frequncy Cut-off | F3* | 15600 | — | 3 | — | dB |
| | Return Loss | DC-F1 | DC - 13800 | — | 13 | — | dB |
| | | F1-F2 | 13800 - 14500 | — | 10 | — | dB |
| Stop Band | Rejection Loss | F4-F5 | 20000 - 23000 | 20 | 33 | — | dB |
| | | F5-F6 | 23000 - 26500 | 25 | 34 | — | dB |
| | | F6-F7 | 26500 - 32000 | — | 38 | — | dB |
| | | F7-F8 | 32000 - 40000 | — | 20 | — | dB |

In Applications where DC voltage is present at either input or output ports, DC blocks are required.
* Typically, a ±5% frequency deviation from the stated value may occur on a unit-to-unit basis.

| Maximum Ratings | |
|---|---|
| Operating Temperature | -55°C to 125°C |
| Storage Temperature | -55°C to 125°C |
| RF Power Input* | 3.2W max.@25°C |

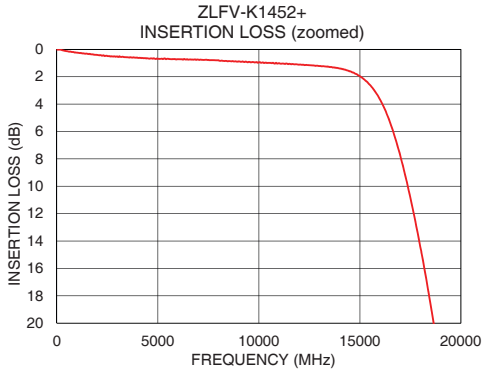
*Passband rating, derate linearly to 1.6W at 125°C ambient
Permanent damage may occur if any of these limits are exceeded.

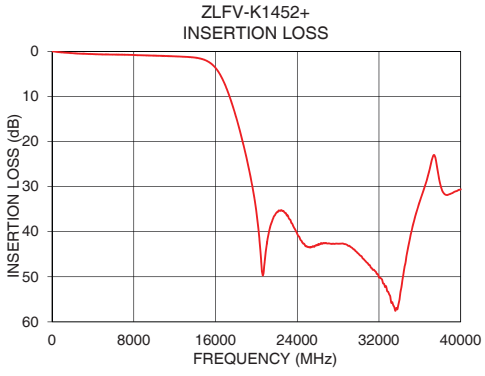
### Typical Frequency Response

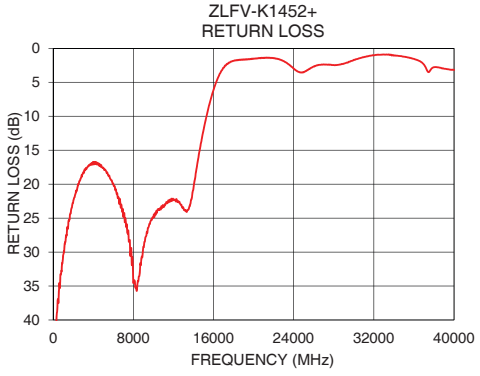



### Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) |
|---|---|---|
| 25 | 0.03 | 45.81 |
| 200 | 0.03 | 42.83 |
| 1000 | 0.24 | 30.44 |
| 2000 | 0.41 | 22.63 |
| 3000 | 0.52 | 18.38 |
| 5000 | 0.70 | 17.56 |
| 10000 | 0.95 | 24.87 |
| 13800 | 1.35 | 22.24 |
| 14500 | 1.60 | 16.07 |
| 15600 | 2.78 | 8.22 |
| 17375 | 10.05 | 2.30 |
| 18650 | 20.00 | 1.67 |
| 19625 | 30.16 | 1.58 |
| 20000 | 35.60 | 1.53 |
| 23000 | 36.45 | 1.88 |
| 26500 | 42.65 | 2.44 |
| 30000 | 44.89 | 1.70 |
| 32000 | 50.16 | 1.04 |
| 35000 | 41.88 | 1.23 |
| 40000 | 30.60 | 3.19 |



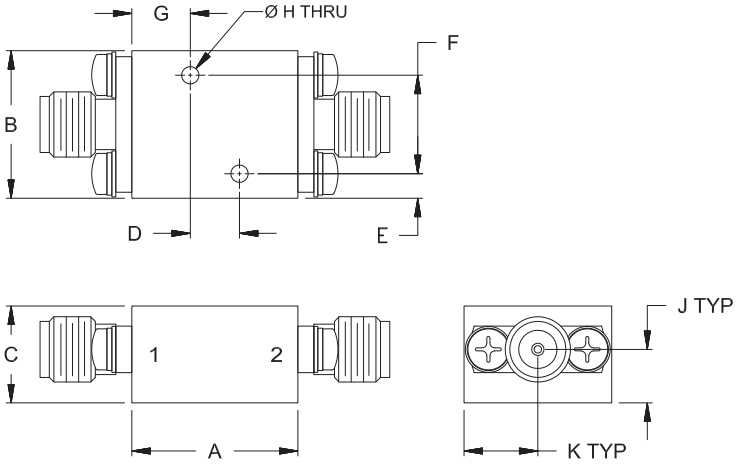

Notes

**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.
**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/MCLStore/terms.jsp

## Coaxial Connections

| | |
|---|---|
| PORT - 1 | 2.92mm-Female |
| PORT - 2 | 2.92mm-Female |

## Outline Drawing




## Outline Dimensions ( inch / mm )

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| **.68** | **.60** | **.39** | **.200** | **.10** | **.400** |
| 17.1 | 15.2 | 10.0 | 5.08 | 2.5 | 10.16 |

| G | H | J | K | | Wt. |
|---|---|---|---|---|---|
| **.24** | **.070** | **.22** | **.30** | | grams |
| 6.0 | 1.78 | 5.5 | 7.6 | | **24** |

*Note: Please refer to case style drawing for details*