

# Coaxial Low Pass Filter

## ZLFW-K143+

50Ω DC to 14 GHz



Generic photo used for illustration purposes only  
CASE STYLE: UK3042

### The Big Deal

- Good power handling, 3.5W
- Temperature stable
- Broadband connectorized package
- Good rejection, 30 dB typical

### Product Overview

ZLFW-K143+ is a 50Ω low pass filter built in broadband connectorized package. Covering DC-14 GHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZLFW-K143+ offer low insertion loss, and good power handling capability. It handles up to 3.5W 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.
3.5W 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.

#### 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](http://www.minicircuits.com/MCLStore/terms.jsp)



# Low Pass Filter

## ZLFW-K143+

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Connectors Model  
2.92mm-F ZLFW-K143+

**+RoHS Compliant**

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

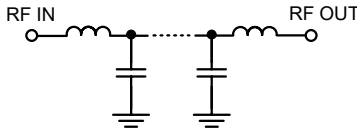
### Features

- Good rejection 30dB typ.
- Temperature stable

### Applications

- Test and measurements
- Telecommunications and broadband wireless system
- Military applications
- Satcom modems

### Functional Schematic



### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC - 14000	—	2.1	3.1	dB
	Freq. Cut-Off	F2*	16000	—	3.0	—	dB
	Return Loss	DC-F1	DC - 14000	—	11	—	dB
Stop Band	Rejection Loss	F3-F4	19250 - 22000	20	30	—	dB
		F4-F5	22000 - 25000	20	30	—	dB
		F5-F6	25000 - 26500	18	30	—	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

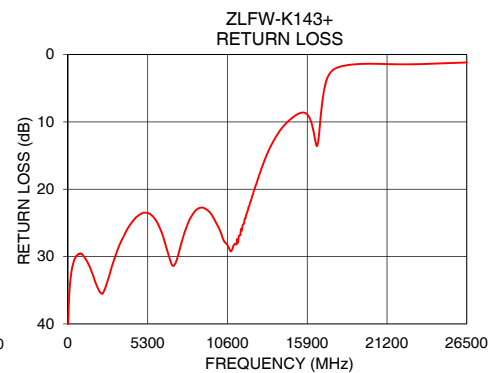
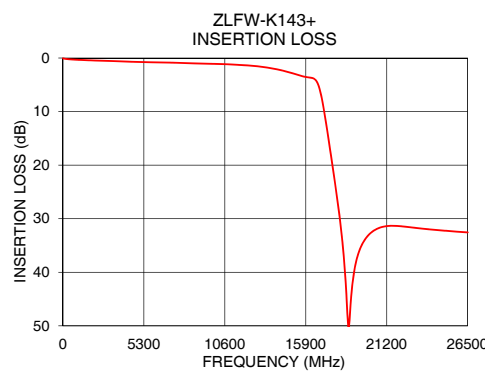
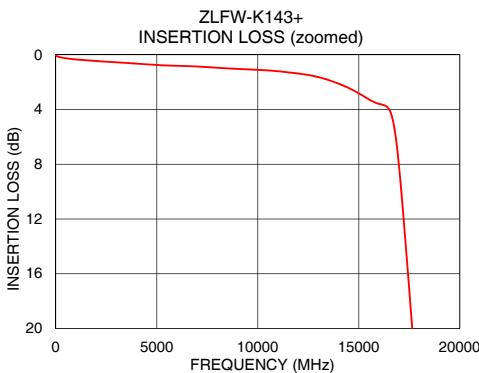
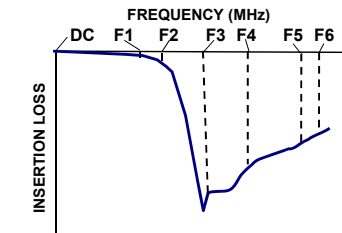
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	3.5W max. @25°C

\*Passband rating, derate linearly to 0.9W at 125°C ambient  
Permanent damage may occur if any of these limits are exceeded.

### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.06	40.69
100	0.13	35.20
1000	0.34	29.82
2000	0.45	34.75
3000	0.55	30.90
5000	0.74	23.50
10000	1.10	25.63
12000	1.37	22.65
14000	2.11	11.57
16000	3.59	9.18
17300	13.48	3.16
18000	27.11	1.85
18500	41.32	1.59
18800	47.44	1.51
19250	37.39	1.42
20000	33.08	1.36
21000	31.48	1.41
22000	31.38	1.44
25000	32.24	1.29
26500	32.55	1.18

### Typical Frequency Response



#### Notes

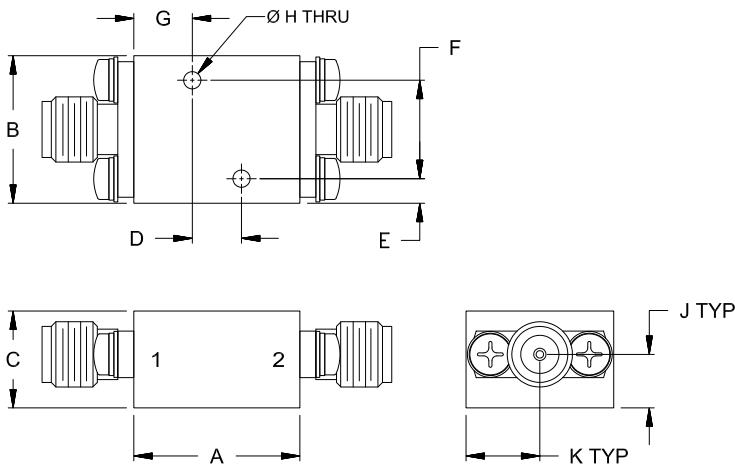
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**Coaxial Connections**

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	<b>24</b>	

Note: Please refer to case style drawing for details

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