Coaxial

Low Pass Filter

ZLFW-K103+

50Ω DC to 10 GHz

Generic photo used for illustration purposes only

CASE STYLE: UK3042

The Big Deal

- Good power handling, 2.5W
- Temperature stable
- Broadband connectorized package
- Good rejection, 41 dB typical

Product Overview

ZLFW-K103+ is a 50Ω low pass filter built in broadband connectorized package. Covering DC-10 GHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZLFW-K103 + offer low insertion loss, and good power handling capability. It handles up to 2.5W 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.
2.5W 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.

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Connectors	Model
2.92mm-F	ZLFW-K103+

+RoHS Compliant

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

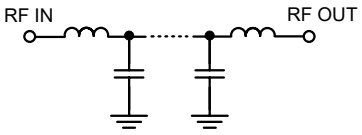
Features

- Good rejection 41dB typ.
- Temperature stable

Applications

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

Functional Schematic



Electrical Specifications at 25°C

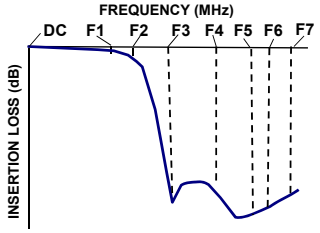
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC - 10000	—	1.9	3	dB
	Freq. Cut-Off	F2*	11400	—	3.0	—	dB
	Return Loss	DC-F1	DC - 10000	—	11	—	dB
Stop Band	Rejection Loss	F3-F4	13700 - 15000	20	41	—	dB
		F4-F5	15000 - 18000	24	36	—	dB
		F5-F6	18000 - 23000	22	33	—	dB
		F6-F7	23000 - 26500	—	17	—	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*	2.5W max.@25°C

*Passband rating, derate linearly to 0.7W at 125°C ambient
Permanent damage may occur if any of these limits are exceeded.

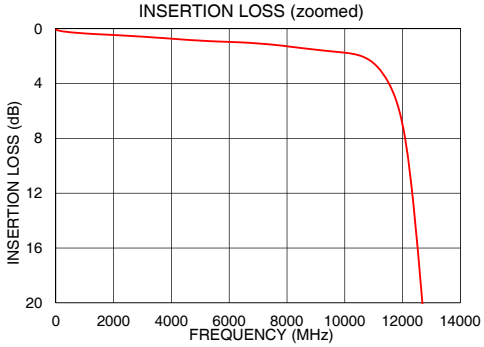
Typical Frequency Response



Typical Performance Data at 25°C

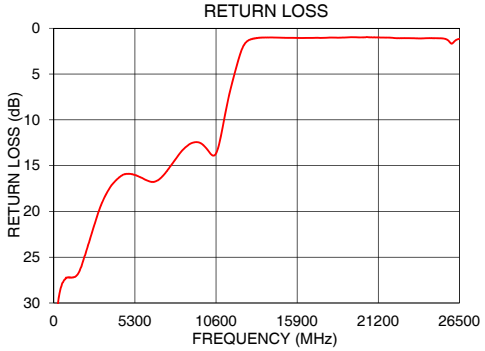
Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.07	39.89
100	0.13	34.28
1000	0.34	27.24
2000	0.45	24.94
4000	0.72	16.71
6000	0.96	16.55
8000	1.28	14.20
10000	1.74	13.17
11400	3.52	7.72
12700	20.32	1.35
13050	29.20	1.14
13700	45.85	1.02
15000	56.14	1.04
18000	39.41	1.02
20000	35.38	1.00
21000	35.02	1.01
22000	35.72	1.03
23000	37.29	1.08
25000	42.89	1.09
26500	21.85	1.15

ZLFW-K103+
INSERTION LOSS (zoomed)



ZLFW-K103+
INSERTION LOSS

ZLFW-K103+
RETURN LOSS



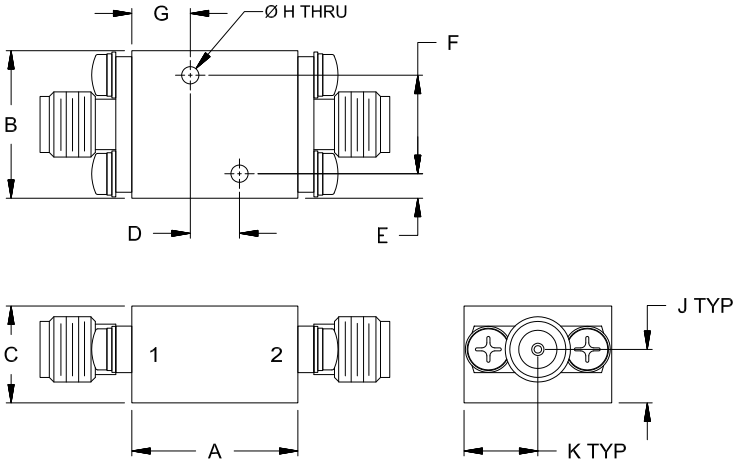
Notes

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