

Coaxial Low Pass Filter

ZLFW-K5000+

50Ω DC to 5 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, 42 dB typical

Product Overview

ZLFW-K5000+ is a 50Ω low pass filter built in broadband connectorized package. Covering DC-5 GHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZLFW-K5000+ 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.

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



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Features

- Good rejection 42dB typ.
- Temperature stable

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 Connectors Model
 2.92mm-F ZLFW-K5000+

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

Applications

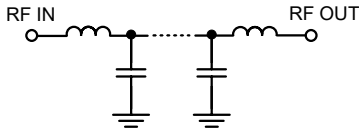
- X-Band radar
- Public safety communications

Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC - 5000	—	1.8	2.6	dB
	Freq. Cut-Off	F2*	5750	—	3.0	—	dB
	Return Loss	DC-F1	DC - 5000	—	12	—	dB
Stop Band	Rejection Loss	F3-F4	7200 - 7600	18	42	—	dB
		F4-F5	7600 - 11000	28	42	—	dB
		F5-F6	11000 - 16000	23	35	—	dB
		F6-F7	16000 - 26500	—	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.

Functional Schematic



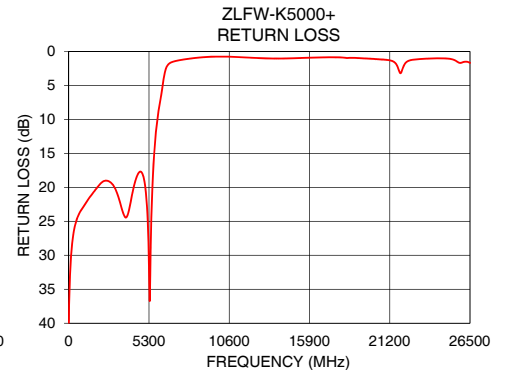
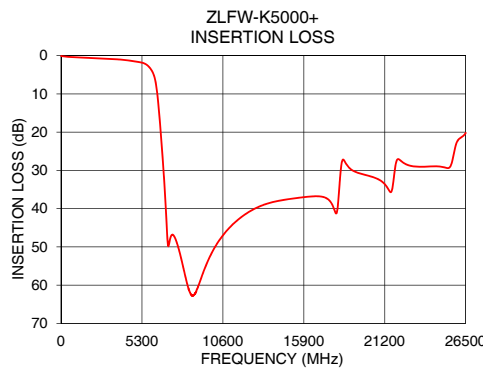
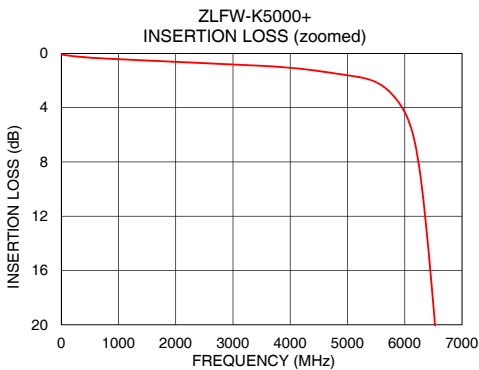
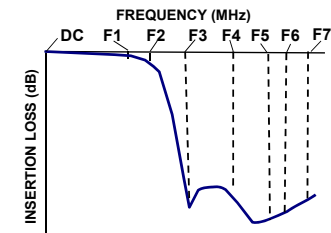
Maximum Ratings	
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	2.5W max. @25°C

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

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.08	39.93
100	0.15	32.20
500	0.32	24.92
1000	0.43	22.77
1500	0.53	21.13
2000	0.62	19.71
5000	1.61	19.11
5500	2.12	21.44
5750	2.89	12.06
5890	3.59	9.38
6470	17.12	2.25
6640	25.96	1.77
7000	49.47	1.44
7100	48.73	1.39
7200	47.21	1.34
7600	49.10	1.18
8000	55.33	1.06
11000	45.12	0.81
16000	36.96	0.92
26500	20.20	1.68

Typical Frequency Response



Notes

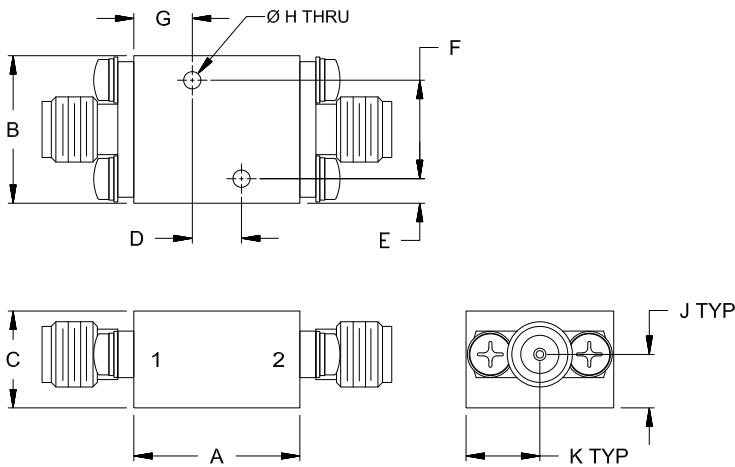
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Coaxial Connections

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	24	

Note: Please refer to case style drawing for details

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