

Coaxial High Pass Filter

ZHFW-K1132+

50Ω 13000 to 20000 MHz



Generic photo used for illustration purposes only
CASE STYLE: UK3042

The Big Deal

- Excellent power handling, 2.5W
- Temperature stable
- Broadband connectorized package
- Good rejection, 43 dB typical

Product Overview

ZHFW-K1132+ is a 50Ω high pass filter built in broadband connectorized package. Covering 13000-20000 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZHFW-K1132+ offer low insertion loss, and excellent 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

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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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High Pass Filter

50Ω 13000 to 20000 MHz

ZHFW-K1132+



Features

- Very good rejection, 43dB typ.
- Temperature stable

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CASE STYLE: UK3042
Connectors Model
2.92mm-F ZHFW-K1132+

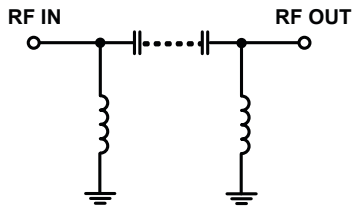
+RoHS Compliant

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

Applications

- Test and measurements
- Military applications
- Telecommunications and broadband wireless systems

Functional Schematic



Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC - 7000	37	43	-	dB
		F1-F2	7000 - 9500	23	38	-	dB
	Freq. Cut-Off	F3*	11300	-	3	-	dB
Pass Band	Insertion Loss	F4-F5	13000 - 14000	-	2.4	-	dB
		F5-F6	14000 - 18000	-	1.7	2.6	dB
	Return Loss	F6-F7	18000 - 20000	-	1.8	-	dB
		F4-F5	13000 - 14000	-	9	-	dB
		F5-F7	14000 - 20000	-	11	-	dB

In Applications where DC voltage is present at either input or output ports, DC blocks are required.

* Typically, a $\pm 5\%$ frequency deviation from the stated value may occur on a unit-to-unit basis.

Maximum Ratings

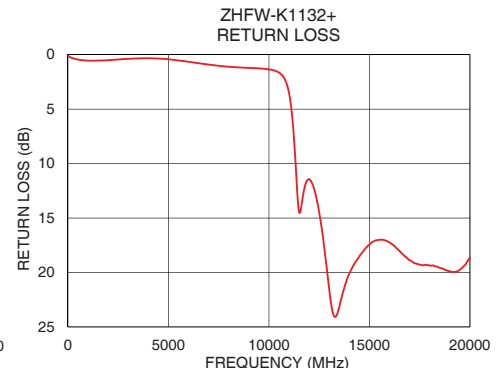
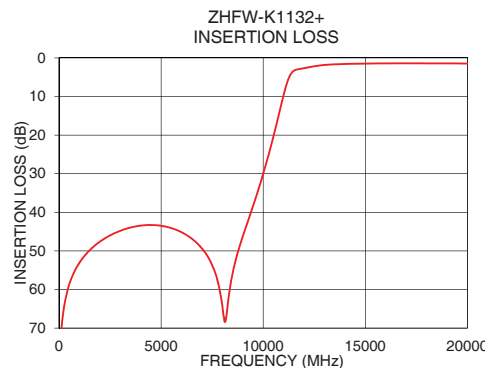
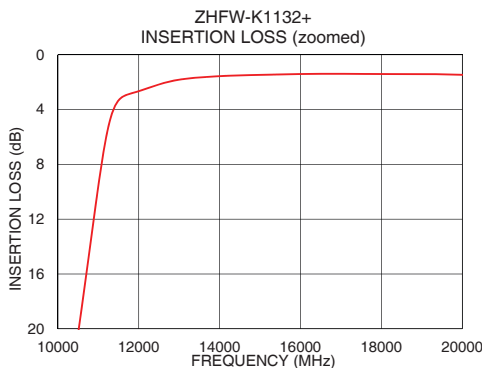
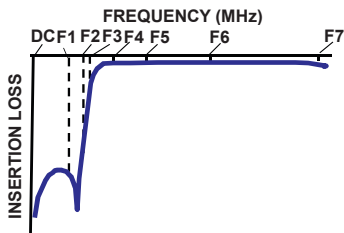
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	2.5W max. @ 25°C

*Passband rating, derate linearly to 0.6W 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	76.51	0.11
500	58.61	0.45
1000	53.03	0.54
1500	49.84	0.55
2000	47.58	0.51
3000	44.79	0.38
5000	43.49	0.42
7000	49.37	0.91
9500	38.40	1.26
10000	30.00	1.34
10500	20.36	1.64
11300	4.66	9.23
13000	1.82	21.59
13500	1.65	23.16
14000	1.56	20.09
14500	1.50	18.51
15000	1.47	17.44
16000	1.41	17.24
18000	1.41	19.37
20000	1.46	18.63

Typical Frequency Response



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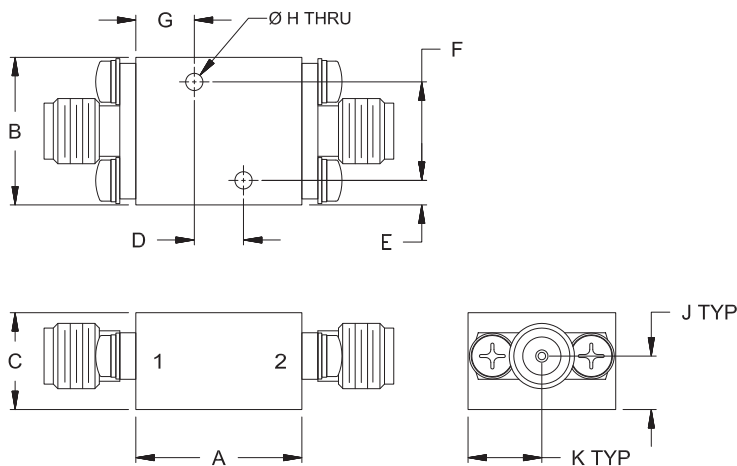
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REV. OR
ECO-010821
ZHFW-K1132+
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Coaxial Connections

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

Outline Drawing



Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

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	

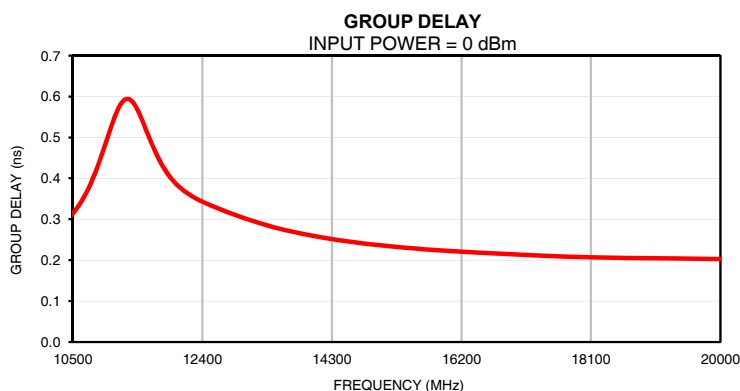
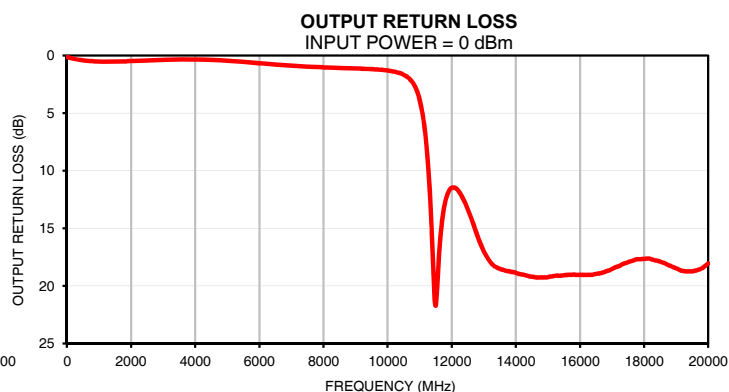
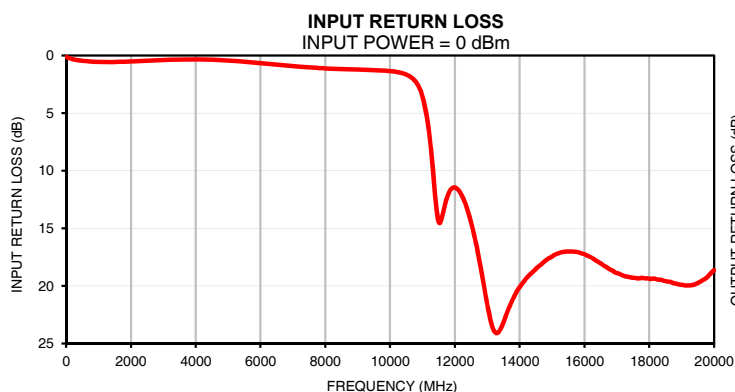
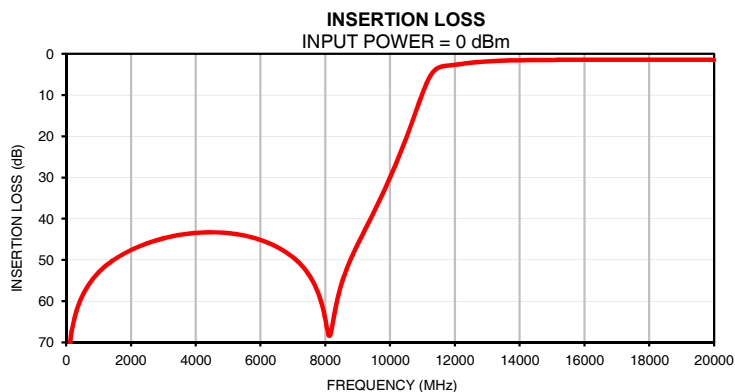
Note: Please refer to case style drawing for details

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Typical Performance Data

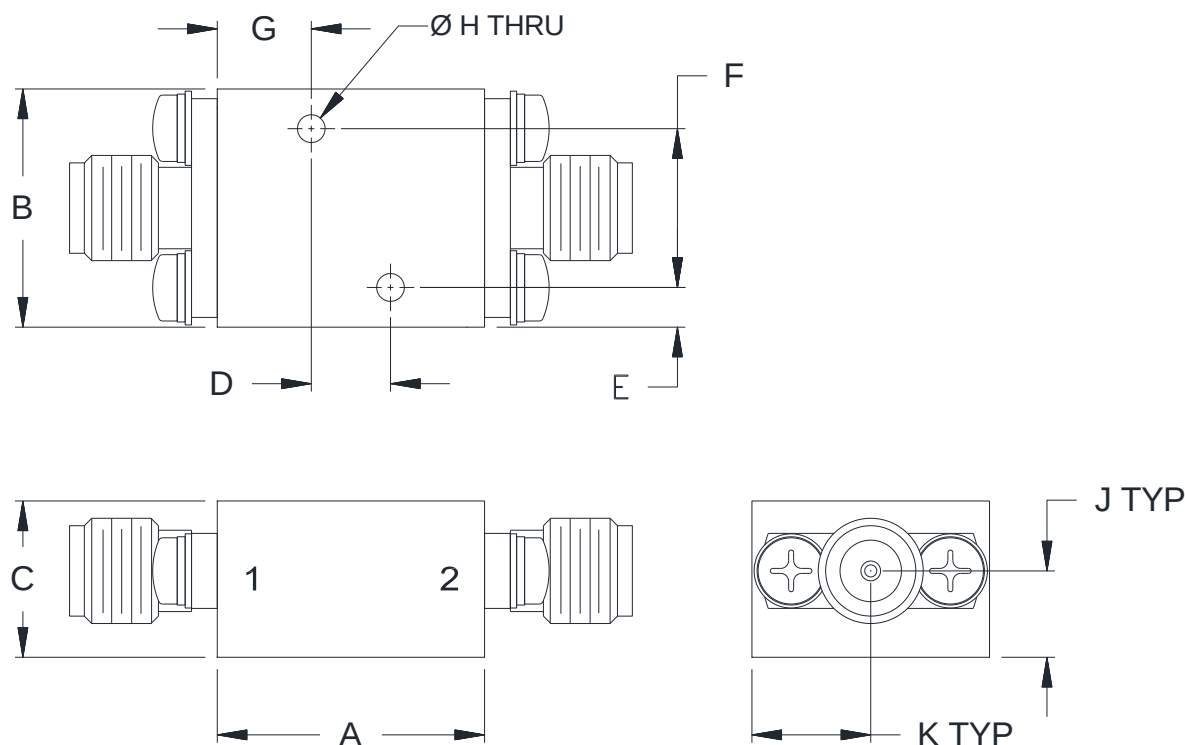
FREQ.	Insertion Loss	Input Return Loss	Output Return Loss	FREQ.	Group Delay
(MHz)	(dB)	(dB)	(dB)	(MHz)	(ns)
10	76.51	0.11	0.11	13000	0.30
50	77.62	0.18	0.17	13100	0.30
100	71.78	0.23	0.20	13200	0.29
150	68.34	0.27	0.23	13300	0.29
200	66.18	0.31	0.27	13400	0.28
250	64.38	0.34	0.30	13500	0.28
300	62.93	0.37	0.32	13600	0.27
350	61.74	0.39	0.35	13700	0.27
400	60.61	0.41	0.37	13800	0.27
450	59.59	0.43	0.39	13900	0.26
500	58.61	0.45	0.41	14000	0.26
550	57.89	0.46	0.43	14100	0.26
600	57.21	0.48	0.44	14200	0.25
700	55.98	0.50	0.46	14300	0.25
800	54.85	0.52	0.48	14400	0.25
900	53.90	0.53	0.50	14500	0.25
1000	53.03	0.54	0.51	14600	0.24
1500	49.84	0.55	0.52	14700	0.24
2000	47.58	0.51	0.48	14800	0.24
2500	45.98	0.45	0.42	14900	0.24
3000	44.79	0.38	0.37	15000	0.24
3500	43.94	0.34	0.33	15100	0.23
4000	43.45	0.33	0.33	15200	0.23
4500	43.28	0.36	0.37	15300	0.23
5000	43.49	0.42	0.44	15400	0.23
5500	44.11	0.53	0.54	15500	0.23
6000	45.14	0.65	0.66	15600	0.23
7000	49.37	0.91	0.87	15700	0.23
9500	38.40	1.26	1.17	15800	0.22
10000	30.00	1.34	1.29	15900	0.22
10500	20.36	1.64	1.66	16000	0.22
10975	10.12	3.31	3.55	16100	0.22
11300	4.66	9.23	11.00	16200	0.22
13000	1.82	21.59	16.98	16300	0.22
13200	1.74	23.84	17.91	16400	0.22
13400	1.68	23.78	18.37	16500	0.22
13600	1.63	22.39	18.58	16600	0.22
13800	1.59	21.08	18.72	16700	0.22
14000	1.56	20.09	18.85	16800	0.22
14200	1.53	19.34	19.00	16900	0.21
14400	1.51	18.79	19.15	17000	0.21
14600	1.50	18.26	19.24	17100	0.21
14800	1.48	17.79	19.27	17200	0.21
15000	1.47	17.44	19.24	17300	0.21
15200	1.46	17.15	19.13	17400	0.21
15400	1.44	17.03	19.10	17500	0.21
15600	1.43	16.99	19.02	17600	0.21
15800	1.42	17.06	19.01	17700	0.21
16000	1.41	17.24	19.02	17800	0.21
16200	1.40	17.50	19.03	17900	0.21
16400	1.39	17.86	19.02	18000	0.21
16600	1.39	18.23	18.92	18100	0.21
16800	1.39	18.57	18.74	18200	0.21
17000	1.39	18.87	18.53	18300	0.21
17500	1.40	19.29	17.94	18400	0.21
18000	1.41	19.37	17.64	18500	0.21
18500	1.41	19.57	17.88	18600	0.21
19000	1.41	19.89	18.46	19000	0.20
19500	1.43	19.74	18.73	19500	0.20
20000	1.46	18.63	18.04	20000	0.20

Typical Performance Curves



Outline Dimensions

UK3042



CASE#	A	B	C	D	E	F
UK3042	.68 (17.1)	.60 (15.2)	.39 (10.0)	.200 (5.08)	.10 (2.5)	.400 (10.16)

CASE#	G	H	J	K	WT.GRAMS
UK3042	.24 (6.0)	.070 (1.78)	.22 (5.5)	.30 (7.6)	24

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .050$; 3 Pl. $\pm .015$

Notes:

- Case material: Brass alloy.
- Case Finish:
 - Case & Cover of the units –Gold plating.
- Refer to the individual model data sheet for the type of connectors available.



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RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 125° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 125° C Ambient Environment	Individual Model Data Sheet