Coaxial Reflectionless **Low Pass Filter**

DC to 11 GHz 50Ω

ZXLF Series



The Big Deal

- · Patented design terminates Stopband signals
- Stopband up to 35 GHz
- High Stopband rejection, up to 50 dB

Product Overview

Mini-Circuits' ZXLF Series reflectionless filters employs a novel filter topology which absorbs and terminates stop band signals internally rather than reflecting them back to the source. Reflectionless filters eliminate stopband reflections, allowing them to be paired with sensitive devices and used in applications that otherwise require circuits such as isolation amplifiers or attenuators. This is developed in a new broadband, stable connectorized package.

Key Features

Feature	Advantages
Easy integration with sensitive reflective components, e.g. mixers, multipliers	Reflectionless filters absorb unwanted signals, preventing reflections back to the source. This reduces generation of additional unwanted signals without the need for extra components like attenuators, improving system dynamic range.
Cascadable	Reflectionless filters can be cascaded in multiple sections to provide sharper and higher attenuation, while also preventing any standing waves that could affect pass band signals.
Excellent stability over temperature	Minimal variation in electrical performance across temperature.
Operating temperature up to 105°C	Suitable for operation close to high power components.
Broadband connectorized package	The connectorized package works well even in high frequencies and easy to interface with other devices. This is well suited for test setups.

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. G. The parts covered by this specification document are subject to Mini-Circuits trandard 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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

Coaxial Reflectionless

50Ω DC to 500 MHz

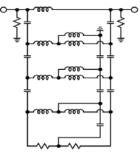
Features

- Match to 50Ω in the stop band, eliminates undesired reflections
- Cascadable
- Temperature stable, up to 105°C
- Protected by US Patents 8,392,495; 9,705,467, additional patent pending
- Protected by China Patent 201080014266.1
- Protected by Taiwan Patent I581494

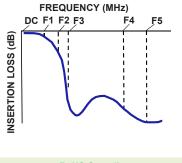
Applications

- Aerospace & Defense
- VHF/UHF Comm
- Pilot Location Systems

Functional Schematic



Typical Frequency Response



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

ZX	LF-	K6	41	M+



Generic photo used for illustration purposes only

CASE STYLE: UK3042					
Connectors Model					
2.92mm-F	ZXLF-K641M+				

Electrical Specifications at 25°C

			-				
Par	Parameter		Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC- 500	-	2.6	3.3	dB
Pass Band	Freq. Cut-off	F2	700	-	3.6	-	dB
	VSWR	DC-F1	DC- 500	-	1.2	-	:1
	Dejection	F3-F4	1100 - 7800	20	28	-	dB
Stop Band	Rejection	F4-F5	7800 - 11000	27	38	-	dB
	VSWR	F3-F4	1100 - 7800	-	1.2	-	:1
	VOVIN	F4-F5	7800 - 11000	-	2.1	-	:1

Absolute Maximum Ratings³

Parameter	Ratings
Operating Temperature	-55°C to +105°C
Storage Temperature	-55°C to +105°C
RF Power Input, Passband (DC-F1) ¹	5W at 25°C
RF Power Input, Stopband (F2-F5) ²	1.6W at 25°C

 1 Passband rating derates linearly to 2.5W at 105°C ambient 2 Stopband rating derates linearly to 0.8W at 105°C ambient

³ Permanent damage may occur if any of these limits are exceeded

ESD rating

Human body model (HBM): Class 1B (Pass 750 V) in accordance with ANSI/ESD 5.1-2001

Typical Performance Data at 25°C

1 10 100 200 220	1.54 1.57 1.63 1.79	1.16 1.16 1.17
100 200 220	1.57 1.63	1.16
200 220		1.17
220	1 70	
		1.22
	1.83	1.23
300	1.99	1.26
500	2.56	1.31
640	3.15	1.27
700	3.50	1.23
1000	11.77	1.17
1100	25.70	1.19
1560	30.33	1.24
5000	26.94	1.32
5500	27.21	1.35
6000	27.78	1.38
7800	30.83	1.62
10000	41.16	1.86
11000	42.30	2.18
12000	40.03	2.46
13000	35.60	2.72

3.5

3.0

£ 2.5

2.0

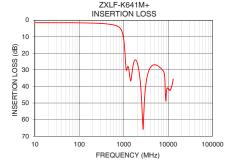
1.5

1.0

10

100

VSWR



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. G. The parts covered by this specification document are subject to Mini-Circuits trandard 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

www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. OR ECO-004934 ZXLF-K641M+ EDU3914 URJ 210118 Page 2 of 3

100000

VSWR

1000

FREQUENCY (MHz)

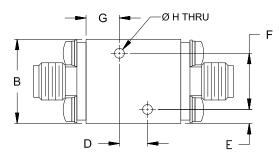
10000

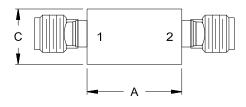


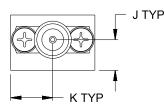
Coaxial Connections

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

Outline Drawing







Outline Dimensions (inch)

F	E	D	C	B	A
.400	. 10	.200	. 39	. 60	. 68
10.16	2.5	5.08	10.0	15.2	17.1
Wt.	2.0	к	J	H	G
grams		.30	.22	.070	.24
24		7.6	5.5	1.78	6.0

Note: Please refer to case style drawing for details

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 specification 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-Circuit's standard theremains 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Mini-Circuits

Coaxial Reflectionless Low Pass Filter

Typical Performance Data

	FREQ.	Insertion Loss	Input Return Loss	Output Return Loss	FREQ.	Group Delay
5 1.57 22.41 22.41 22 0.62 15 1.57 22.33 22.41 22.43 4 0.62 40 1.59 22.27 22.29 6 0.62 60 1.56 22.55 22.52 6 0.62 160 1.73 20.70 20.82 8 0.62 200 1.79 20.06 20.15 9 0.62 200 1.79 20.06 20.15 9 0.62 300 2.14 17.69 16.04 11 0.62 400 2.26 17.73 17.40 14 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 4.43 2.417	(MHz)	(dB)	(dB)	(dB)	(MHz)	(ns)
5 1.57 22.41 22.41 22 0.62 15 1.57 22.33 22.41 22.43 4 0.62 40 1.59 22.27 22.29 6 0.62 60 1.56 22.55 22.52 6 0.62 160 1.73 20.70 20.82 8 0.62 200 1.79 20.06 20.15 9 0.62 200 1.79 20.06 20.15 9 0.62 300 2.14 17.69 16.04 11 0.62 400 2.26 17.73 17.40 14 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 2.95 17.77 17.91 17 0.62 600 4.43 2.417	1	1.54	22.37	22,49	1	0.62
					2	
					5	
					5	
$ \begin{vmatrix} 160 & 1.73 & 20.70 & 20.82 & 8 & 0.62 \\ 200 & 1.79 & 20.08 & 20.15 & 9 & 0.62 \\ 300 & 1.87 & 19.41 & 19.54 & 10 & 0.62 \\ 300 & 2.14 & 17.88 & 18.04 & 12 & 0.62 \\ 400 & 2.25 & 17.58 & 17.70 & 13 & 0.62 \\ 400 & 2.26 & 17.38 & 17.50 & 14 & 0.62 \\ 500 & 2.56 & 17.23 & 17.70 & 15 & 0.62 \\ 600 & 2.95 & 17.77 & 17.51 & 17 & 0.62 \\ 600 & 2.95 & 17.77 & 17.56 & 16 & 0.62 \\ 700 & 3.38 & 19.13 & 19.28 & 19 & 0.62 \\ 800 & 4.43 & 24.16 & 24.32 & 20 & 0.62 \\ 900 & 6.44 & 25.17 & 22.64 & 22.08 & 60 & 0.62 \\ 1000 & 11.77 & 22.04 & 22.08 & 60 & 0.62 \\ 1100 & 25.70 & 21.26 & 21.19 & 80 & 0.62 \\ 1200 & 28.71 & 18.37 & 18.47 & 100 & 0.61 \\ 1300 & 29.57 & 16.78 & 16.47 & 120 & 0.61 \\ 1400 & 35.94 & 15.94 & 17.07 & 140 & 0.61 \\ 1500 & 34.09 & 18.19 & 122 & 0.62 \\ 1100 & 25.71 & 22.04 & 22.08 & 60 & 0.62 \\ 1200 & 28.71 & 18.37 & 18.47 & 100 & 0.61 \\ 1400 & 35.94 & 16.94 & 17.07 & 140 & 0.61 \\ 1500 & 34.09 & 18.19 & 18.47 & 100 & 0.61 \\ 1500 & 34.09 & 18.19 & 18.47 & 100 & 0.61 \\ 1500 & 24.00 & 24.74 & 24.94 & 220 & 0.61 \\ 1500 & 24.00 & 24.74 & 24.94 & 220 & 0.61 \\ 1600 & 28.28 & 20.09 & 20.25 & 280 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.46 & 35.49 & 300 & 0.62 \\ 2200 & 35.51 & 29.39 & 29.67 & 280 & 0.62 \\ 2200 & 30.61 & 35.46 & 35.46 & 36.49 & 300 & 0.62 \\ 2200 & 30.61 & 35.45 & 33.20 & 0.62 \\ 2200 & 30.61 & 35.46 & 35.46 & 36.49 & 300 & 0.62 \\ 2200 & 30.61 & 35.45 & 33.20 & 0.62 \\ 2200 & 30.61 & 35.45 & 33.20 & 0.63 \\ 3300 & 35.12 & 27.17 & 27.34 & 24.00 & 0.63 \\ 3300 & 35.12 & 27.17 & 17.22 & 17.82 & 500 & 0.63 \\ 3300 & 35.12 & 27.17 & 17.22 & 17.82 & 500 & 0.63 \\ 3300 & 35.14 & 22.17 & 23.38 & 440 & 0.65 \\ 3400 & 33.45 & 27.13 & 21.80 & 440 & 0.65 \\ 3500 & 27.41 & 15.60 & 16.53 & 540 & 0.77 \\ 6500 & 28.44 & 16.28 & 17.70 & 530 & 0.77 \\ 7000 & 28.34 & 12.67 & 11.83 & 660 & 0.77 \\ 7000 & 28.44 & 16.17 & 720 & 0.83 \\ 1000 & 41.81 & 10.40 & 9.41 & 740 & 0.99 \\ 1000 & 41.81 & 10.40 & 9.41 & 740 & 0.99 \\ 11000 & 41.81 & 9.01 & 7.99 & 780 & 0.96 \\ 11000 & 41.81 & 9.04 & 7.99 & 780 & 0.96 \\ 11000 & 41.81 & 9.04 & 7.99 & 780 & 0.96 \\ 110$					0	
					1	
					8	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{bmatrix} 600 & 2.95 & 17.77 & 17.91 & 17 & 0.62 \\ 660 & 3.38 & 19.13 & 19.29 & 18 & 0.62 \\ 700 & 3.50 & 19.58 & 19.83 & 19 & 0.62 \\ 800 & 4.43 & 24.16 & 24.32 & 20 & 0.62 \\ 900 & 6.44 & 25.17 & 25.36 & 40 & 0.62 \\ 1000 & 11.77 & 22.04 & 22.08 & 60 & 0.62 \\ 1100 & 25.70 & 21.26 & 21.39 & 80 & 0.62 \\ 1200 & 28.71 & 18.37 & 18.47 & 100 & 0.61 \\ 1300 & 29.57 & 16.78 & 16.91 & 120 & 0.61 \\ 1400 & 35.94 & 16.94 & 17.07 & 140 & 0.61 \\ 1500 & 24.82 & 20.09 & 20.25 & 180 & 0.61 \\ 1600 & 28.28 & 20.09 & 20.25 & 180 & 0.61 \\ 1600 & 24.83 & 22.37 & 22.50 & 200 & 0.61 \\ 1800 & 24.00 & 24.74 & 24.94 & 220 & 0.61 \\ 1900 & 24.25 & 27.12 & 27.24 & 240 & 0.61 \\ 2000 & 25.51 & 29.39 & 29.67 & 260 & 0.62 \\ 2100 & 27.63 & 32.22 & 32.26 & 280 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.49 & 300 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.49 & 300 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.49 & 300 & 0.62 \\ 2200 & 30.61 & 39.52 & 38.26 & 340 & 0.63 \\ 3000 & 43.95 & 25.05 & 25.17 & 380 & 0.64 \\ 3300 & 37.25 & 22.99 & 23.18 & 400 & 0.64 \\ 3300 & 37.25 & 22.99 & 23.18 & 400 & 0.64 \\ 3300 & 33.45 & 21.38 & 21.60 & 440 & 0.65 \\ 3400 & 33.45 & 21.38 & 21.60 & 440 & 0.65 \\ 3500 & 27.17 & 17.22 & 17.82 & 500 & 0.62 \\ 2400 & 28.45 & 18.49 & 18.94 & 480 & 0.67 \\ 4500 & 27.71 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.21 & 15.60 & 16.53 & 540 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.17 & 560 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.87 & 560 & 0.71 \\ 6500 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6500 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6500 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 7000 & 29.30 & 13.72 & 14.40 & 600 & 0.73 \\ 8500 & 31.40 & 11.99 & 11.89 & 640 & 0.77 \\ 7800 & 30.83 & 12.20 & 1.78 & 14.94 & 15.87 & 560 & 0.71 \\ 7700 & 29.30 & 13.72 & 14.40 & 600 & 0.73 \\ 8500 & 31.40 & 11.99 & 11.89 & 640 & 0.77 \\ 7800 & 30.83 & 12.40 & 12.53 & 620 & 0.75 \\ 8500 & 27.21 & 15.60 & 16.43 & 760 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.88 \\ 10500 & 41.98 & 10.40 & 9.41 & 740 & 0.89 \\ 11000 & 42.30 & 9.64 & 8.61 & 760 & 0.92 \\ 11500 & 41.61 & 9.01 & 7.99 & 780 & 0.96 \\ 1200 & 40.33 & 8.47 $						
660 3.38 19.13 19.29 18 16 0.62 700 3.50 1936 19.83 19 0.62 800 4.43 24.16 24.32 20 0.62 900 6.44 22.17 25.36 40 0.62 1000 11.77 22.04 22.08 60 0.62 1100 25.70 21.20 21.39 80 0.62 1200 28.71 18.37 18.47 100 0.61 1300 29.57 16.78 16.91 120 0.61 1400 35.94 16.94 17.07 140 0.61 1500 34.09 18.19 18.34 160 0.61 1700 25.13 22.37 22.50 200 0.61 1900 24.25 27.12 27.24 240 0.61 2000 24.25 27.12 27.24 240 0.62 2100 27.63 32.22 32.26 280 0.62 2100 27.63 32.22 38.26 300 0.62 2300 36.61 39.55 320 0.62 2300 34.47 39.45 38.55 320 0.62 2400 39.61 39.52 38.26 340 0.63 3000 43.95 25.05 25.17 380 0.64 3300 35.12 22.17 22.38 420 0.65 3500 27.17						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					18	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
		4.43	24.16	24.32	20	0.62
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	900	6.44	25.17	25.36	40	0.62
	1000	11.77	22.04	22.08	60	0.62
$ \begin{vmatrix} 1300 & 29.57 & 16.78 & 16.91 & 120 & 0.61 \\ 1400 & 35.94 & 16.94 & 17.07 & 140 & 0.61 \\ 1500 & 28.28 & 20.09 & 20.25 & 180 & 0.61 \\ 1700 & 25.13 & 22.37 & 22.50 & 200 & 0.61 \\ 1800 & 24.00 & 24.74 & 24.94 & 220 & 0.61 \\ 1900 & 24.25 & 27.12 & 27.24 & 240 & 0.61 \\ 2000 & 25.51 & 29.39 & 29.67 & 260 & 0.62 \\ 2100 & 27.63 & 32.22 & 32.26 & 280 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.49 & 300 & 0.62 \\ 2300 & 34.47 & 39.45 & 38.55 & 320 & 0.62 \\ 2400 & 39.61 & 39.52 & 38.56 & 340 & 0.63 \\ 3500 & 46.46 & 35.70 & 34.99 & 360 & 0.63 \\ 3500 & 46.46 & 35.70 & 34.99 & 360 & 0.63 \\ 3300 & 43.95 & 25.05 & 25.17 & 380 & 0.64 \\ 3300 & 33.45 & 22.17 & 22.38 & 420 & 0.65 \\ 3400 & 33.45 & 12.18 & 24.00 & 0.64 \\ 3300 & 32.12 & 20.74 & 21.01 & 460 & 0.65 \\ 3400 & 28.45 & 18.49 & 18.94 & 480 & 0.67 \\ 4500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5000 & 27.78 & 14.94 & 18.94 & 480 & 0.67 \\ 4500 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6600 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.17 & 580 & 0.72 \\ 7700 & 29.30 & 13.72 & 14.40 & 600 & 0.73 \\ 7800 & 30.83 & 12.40 & 12.53 & 620 & 0.75 \\ 8000 & 31.40 & 11.99 & 11.89 & 640 & 0.77 \\ 8500 & 38.48 & 12.67 & 11.88 & 660 & 0.79 \\ 9000 & 46.27 & 16.11 & 15.33 & 680 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.17 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 11000 & 42.30 & 9.64 & 8.61 & 760 & 0.92 \\ 11000 & 42.30 & 9.64 & 8.61 & 760 & 0.92 \\ 11000 & 41.03 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 80$	1100	25.70	21.26	21.39	80	0.62
$ \begin{vmatrix} 1300 & 29.57 & 16.78 & 16.91 & 120 & 0.61 \\ 1400 & 35.94 & 16.94 & 17.07 & 140 & 0.61 \\ 1500 & 28.28 & 20.09 & 20.25 & 180 & 0.61 \\ 1700 & 25.13 & 22.37 & 22.50 & 200 & 0.61 \\ 1800 & 24.00 & 24.74 & 24.94 & 220 & 0.61 \\ 1900 & 24.25 & 27.12 & 27.24 & 240 & 0.61 \\ 2000 & 25.51 & 29.39 & 29.67 & 260 & 0.62 \\ 2100 & 27.63 & 32.22 & 32.26 & 280 & 0.62 \\ 2200 & 30.60 & 35.46 & 35.49 & 300 & 0.62 \\ 2300 & 34.47 & 39.45 & 38.55 & 320 & 0.62 \\ 2400 & 39.61 & 39.52 & 38.56 & 340 & 0.63 \\ 3500 & 46.46 & 35.70 & 34.99 & 360 & 0.63 \\ 3500 & 46.46 & 35.70 & 34.99 & 360 & 0.63 \\ 3300 & 43.95 & 25.05 & 25.17 & 380 & 0.64 \\ 3300 & 33.45 & 22.17 & 22.38 & 420 & 0.65 \\ 3400 & 33.45 & 12.18 & 24.00 & 0.64 \\ 3300 & 32.12 & 20.74 & 21.01 & 460 & 0.65 \\ 3400 & 28.45 & 18.49 & 18.94 & 480 & 0.67 \\ 4500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5500 & 27.17 & 17.22 & 17.82 & 500 & 0.68 \\ 5000 & 27.78 & 14.94 & 18.94 & 480 & 0.67 \\ 4500 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6600 & 27.78 & 14.94 & 15.87 & 560 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.17 & 580 & 0.72 \\ 7700 & 29.30 & 13.72 & 14.40 & 600 & 0.73 \\ 7800 & 30.83 & 12.40 & 12.53 & 620 & 0.75 \\ 8000 & 31.40 & 11.99 & 11.89 & 640 & 0.77 \\ 8500 & 38.48 & 12.67 & 11.88 & 660 & 0.79 \\ 9000 & 46.27 & 16.11 & 15.33 & 680 & 0.71 \\ 6500 & 28.49 & 14.24 & 15.17 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 10000 & 41.16 & 11.36 & 10.47 & 720 & 0.83 \\ 11000 & 42.30 & 9.64 & 8.61 & 760 & 0.92 \\ 11000 & 42.30 & 9.64 & 8.61 & 760 & 0.92 \\ 11000 & 41.03 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 20.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 800 & 1.00 \\ 1000 & 30.30 & 8.47 & 7.51 & 80$				18.47	100	0.61
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		29.57		16.91		0.61
$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$		35.94				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
600027.7814.9415.875600.71650028.4914.2415.175800.72700029.3013.7214.406000.73780030.8312.4012.536200.75800031.4011.9911.896400.77850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00						
650028.4914.2415.175800.72700029.3013.7214.406000.73780030.8312.4012.536200.75800031.4011.9911.896400.77850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861150041.9810.409.417400.891150041.619.017.997800.961200040.038.477.518001.00						
700029.3013.7214.406000.73780030.8312.4012.536200.75800031.4011.9911.896400.77850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00						
780030.8312.4012.536200.75800031.4011.9911.896400.77850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00	6500	28.49	14.24	15.17	580	0.72
800031.4011.9911.896400.77850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00	7000	29.30	13.72			0.73
850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00	7800	30.83	12.40	12.53	620	0.75
850038.4812.6711.886600.79900046.2716.1115.336800.81950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00				11.89	640	
9000 46.27 16.11 15.33 680 0.81 9500 41.02 12.76 12.01 700 0.83 10000 41.16 11.36 10.47 720 0.86 10500 41.98 10.40 9.41 740 0.89 11000 42.30 9.64 8.61 760 0.92 11500 41.61 9.01 7.99 780 0.96 12000 40.03 8.47 7.51 800 1.00	8500	38.48				0.79
950041.0212.7612.017000.831000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00						
1000041.1611.3610.477200.861050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00						
1050041.9810.409.417400.891100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00						
1100042.309.648.617600.921150041.619.017.997800.961200040.038.477.518001.00	10500					
1150041.619.017.997800.961200040.038.477.518001.00						
12000 40.03 8.47 7.51 800 1.00						
					820	



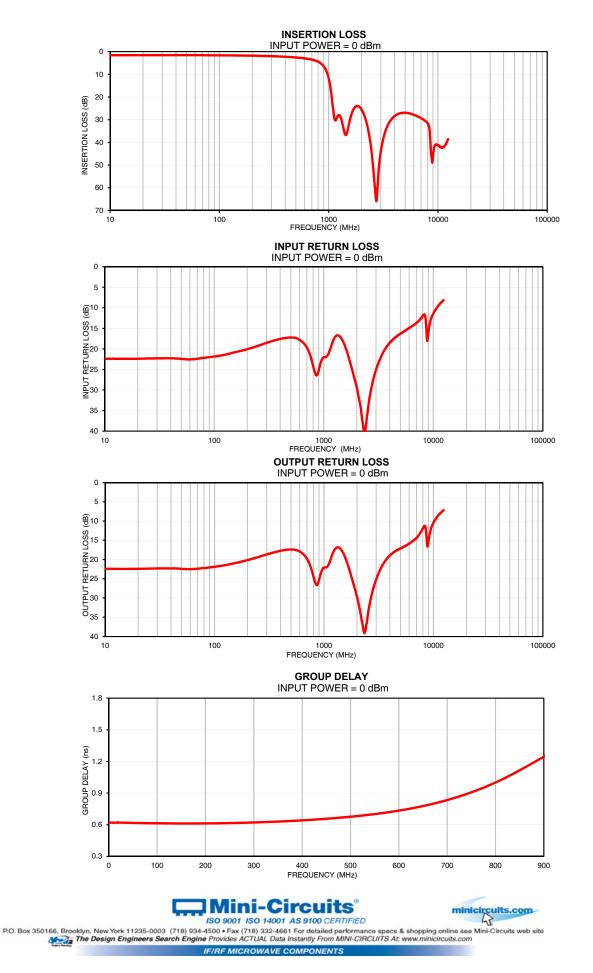


REV. OR ZXLF-K641M+ 210112 Page 1 of 1

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

Coaxial Reflectionless Low Pass Filter

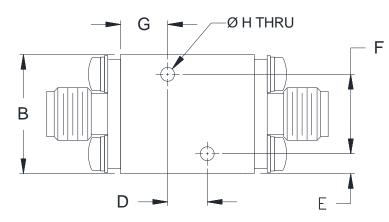
Typical Performance Curves

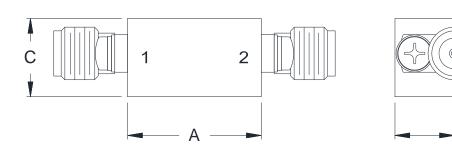


REV. OR ZXLF-K641M+ 210118 Page 1 of 1

Case Style

Outline Dimensions





CASE#	А	В	С	D	Е	F
UK3042	.68	.60	.39	.200	.10	.400
	(17.1)	(15.2)	(10.0)	(5.08)	(2.5)	(10.16)

CASE#	G	Н	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. <u>+</u> .050; 3 Pl. <u>+</u> .015

Notes:

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





P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

RF/IF MICROWAVE COMPONENTS

<u>UK</u>

UK3042

J TYP

KTYP

Environmental Specifications ENV002 Mini-Circuits 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 Reference/Spec **Test/Inspection Condition Operating Temperature** -55° to 105°C Individual Model Data Sheet Ambient Environment Storage Temperature Individual Model Data Sheet -55° to 105°C Ambient Environment

ENV002 Rev: OR 03/11/20 E002050 File: ENV002.pdf

This document and its contents are the property of Mini-Circuits.