(LTCC) COAXIAL

Low Pass Filter

ZLFW-K1292+

50Ω DC to 12.9 GHz 2.92mm Female

KEY FEATURES

- Low Insertion Loss, 1.3 dB Typ.
- Return Loss, 15 dB Typ.
- Stop Band Rejection, 45 dB Typ.
- Broadband Connectorized Package.
- Power Handling: 2.5 Watts



Generic photo used for illustration purposes only

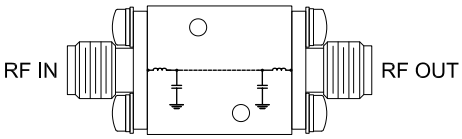
APPLICATIONS

- Test & Measurement.
- EW,Radar and ECM Defence Systems.
- Back Haul Radio Systems.

PRODUCT OVERVIEW

ZLFW-K1292+ is a 50Ω low pass filter built in broadband connectorized package. Covering DC-12.9 GHz bandwidth, these units offer good matching within the passband and good rejection in stopband. ZLFW-K1292 + offer low insertion loss, and good power handling capability. It handles up to 2.5 W RF input power and provides a wide operating temperature range from -55°C to 125°C.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS[1,2] AT +25°C

Parameter		F#	Frequency (GHz)	Min.	Typ.	Max.	Units
Pass Band	Insertion Loss	DC-F1	DC- 11.5	—	1.3	2.4	dB
		F1-F2	11.5- 12.9	—	2.3	—	
	Freq. Cut-Off[3]	Fc[3]	13.9	—	3	—	dB
	Return Loss	DC-F1	DC - 12.9	—	13	—	dB
Stop Band	Rejection	F3-F4	17 - 19.5	20	38	—	dB
		F4-F5	19.5 - 22.9	25	32	—	
		F5-F6	22.9 - 25	20	30	—	
		F6-F7	25 - 26.5	—	25	—	

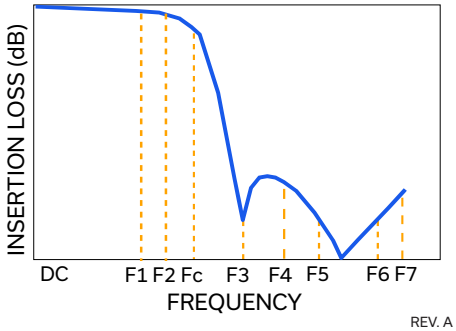
1. This filter is bi-directional, RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.
2. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.
3. Typical variation ± 5%

ABSOLUTE MAXIMUM RATINGS[4]

Parameter	Ratings
Operating Temperature	-55 °C to +125 °C
Storage Temperature	-55 °C to +125 °C
Input Power[5]	2.5 W @25°C

4. Permanent damage may occur if any of these limits are exceeded.
5. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 0.7 W at +125°C.

TYPICAL FREQUENCY RESPONSE



REV. A
ECO-020923
ZLFW-K1292+
EDU4757
URJ
240219

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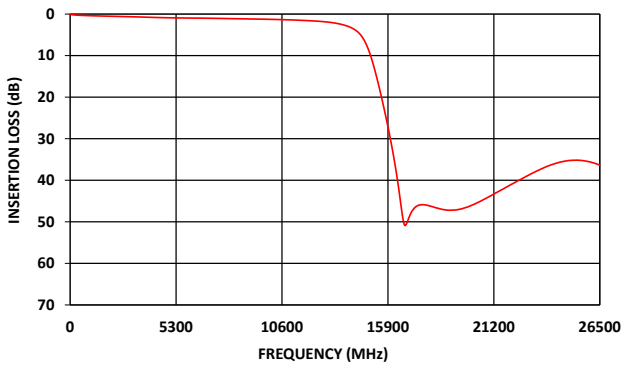
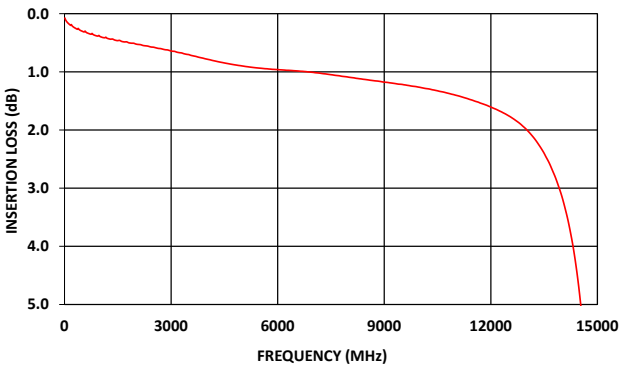
TYPICAL PERFORMANCE GRAPHS

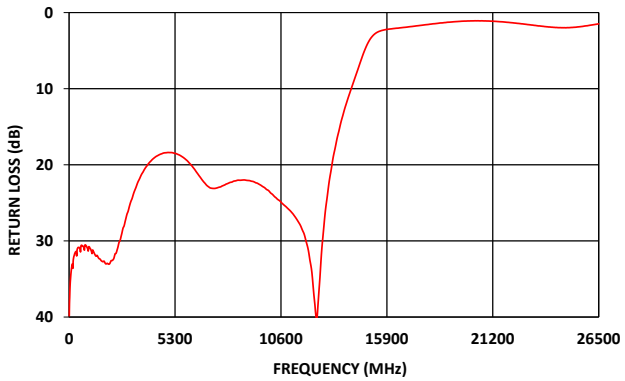
ZLFW-K1292+
INSERTION LOSS



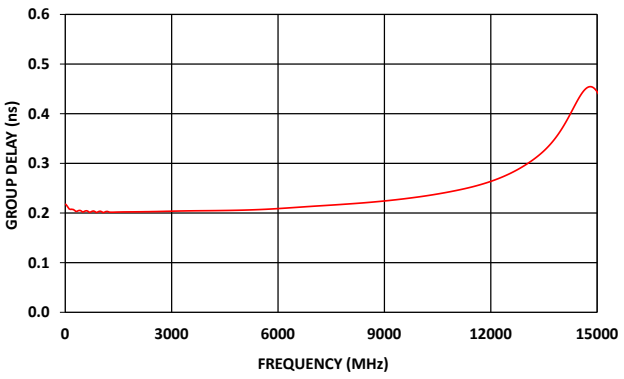
ZLFW-K1292+
INSERTION LOSS (Zoomed)



ZLFW-1292+
RETURN LOSS



ZLFW-K1292+
GROUP DELAY



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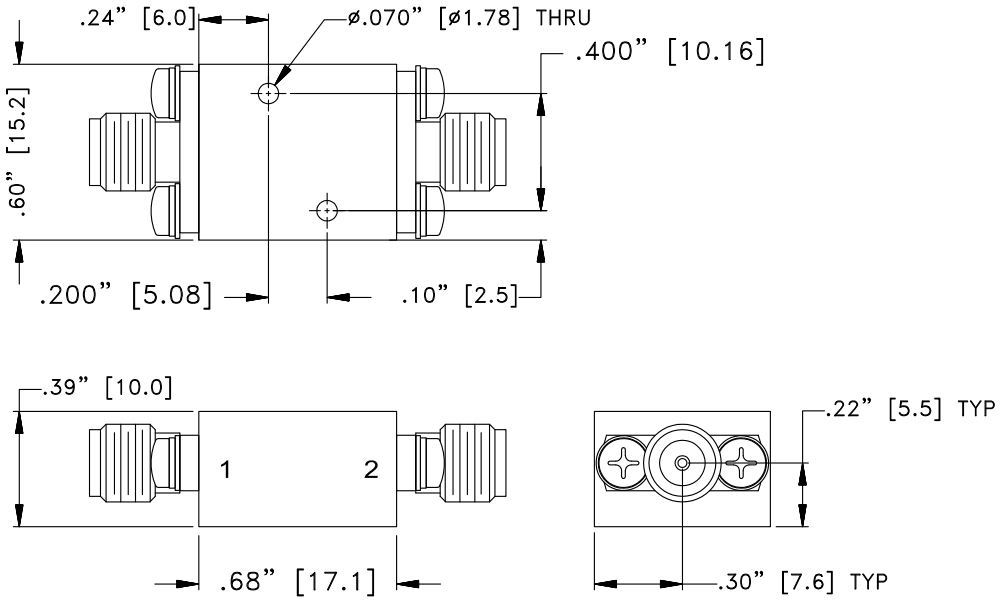
CONNECTOR DESCRIPTION

Function	Marking on Unit	Connector
RF1[1]	1	2.92mm Female
RF2[1]	2	2.92mm Female

CASE STYLE DRAWING



Unit weight: 24grams
Dimensions are in inches (mm). Tolerances: 2 Pl.±.050"; 3 Pl.±.015"

PRODUCT MARKING*: ZLFW-K1292+

*Marking may contain other features or characters for internal lot control.

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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	UK3042
RoHS Status	Compliant
Environmental Ratings	ENV124

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-Circuits' 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/terms/viewterm.html