

# Coaxial Amplifier

## ZKL-1R5+

50Ω Medium Power 10 to 1500 MHz

### Features

- wideband, 10 to 1500 MHz
- high IP3, +31 dBm typ.
- low noise, 3 dB typ.
- high gain, 40 dB typ.
- protected by US Patent, 6,943,629

### Applications

- communication systems
- cellular
- satellite distribution
- GSM/ISM



Generic photo used for illustration purposes only

CASE STYLE: BY493

Connectors	Model
SMA	ZKL-1R5+

**+RoHS Compliant**

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

### Amplifier Electrical Specifications at 25°C

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)			MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	$f_L$	$f_U$	Typ.	Min.	Flatness Max.	Min. Output (1 dB Compr.)		Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
ZKL-1R5+	10	1500	40	36	±1.2	+15	+15	+13	3.0	+31	1.4	1.6	12	115

Open load is not recommended, potentially can cause damage.  
With no load derate max input power by 20 dB

L= low range ( $f_L$  to  $f_U/2$ ) U= upper range ( $f_U/2$  to  $f_U$ )

### Maximum Ratings

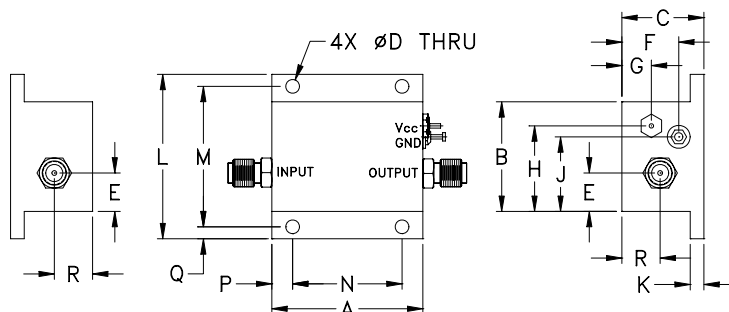
Operating Temperature -40°C to 75°C

Storage Temperature -55°C to 100°C

DC Voltage +13V Max.

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	wt
1.38	1.00	.75	.125	.35	.52	.27	.76	.66	.125	1.50	1.281	1.000	.19	.11	.35	grams
35.05	25.40	19.05	3.18	8.89	13.21	6.86	19.30	16.76	3.18	38.10	32.54	25.40	4.83	2.79	8.89	40

### Notes

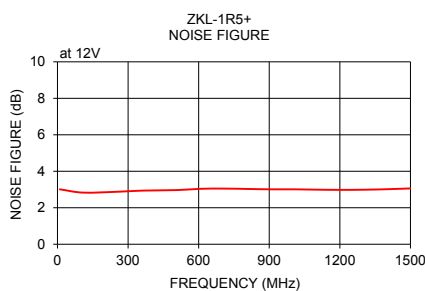
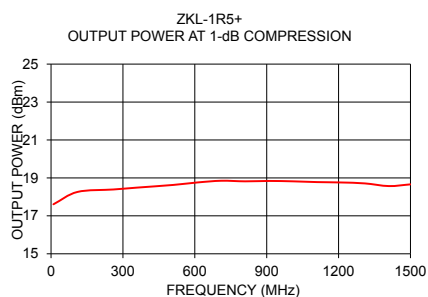
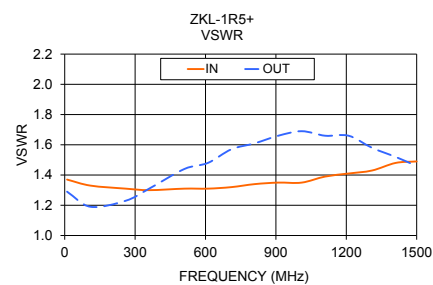
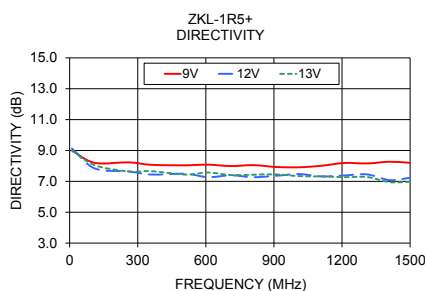
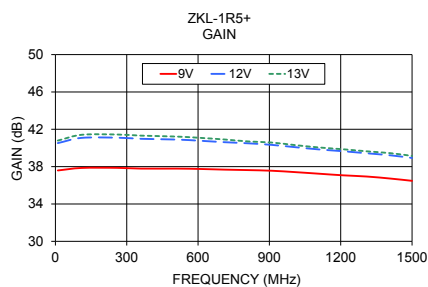
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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

REV. D  
M151107  
ZKL-1R5+  
200508  
Page 1 of 2

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	9V	12V	13V	9V	12V	13V	IN	OUT		
10.00	40.89	40.39	38.82	9.87	12.48	9.87	1.14	1.26	3.00	16.90
100.00	40.61	40.27	38.69	9.36	9.62	9.36	1.06	1.36	2.65	16.80
250.00	40.51	40.18	38.67	9.38	9.44	9.38	1.08	1.37	2.83	16.90
350.00	40.52	40.18	38.74	9.18	9.39	9.18	1.09	1.37	2.84	17.02
500.00	40.55	40.25	38.88	8.75	8.95	8.75	1.09	1.38	2.89	17.18
600.00	40.62	40.31	39.04	8.54	8.82	8.54	1.09	1.38	2.88	17.17
700.00	40.73	40.40	39.23	8.21	8.63	8.21	1.07	1.37	2.91	17.10
800.00	40.87	40.54	39.48	7.89	8.36	7.89	1.05	1.35	2.77	17.07
900.00	41.03	40.68	39.76	7.56	8.17	7.56	1.05	1.31	2.80	17.05
1000.00	41.20	40.83	40.04	7.29	7.95	7.29	1.10	1.26	2.77	17.04
1100.00	41.33	40.96	40.23	7.24	7.79	7.24	1.18	1.18	2.85	16.79
1200.00	41.39	40.99	40.29	7.50	7.80	7.50	1.30	1.10	2.87	16.80
1300.00	41.30	40.90	40.11	8.30	8.05	8.30	1.44	1.07	2.81	16.68
1400.00	41.02	40.62	39.62	9.66	8.64	9.66	1.61	1.18	2.84	16.70
1500.00	40.48	40.12	38.85	11.54	9.72	11.54	1.80	1.33	2.87	16.49



**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](http://www.minicircuits.com/MCLStore/terms.jsp)

