

# Coaxial Amplifier

## ZJL-4HG+

50Ω Medium Power 20 to 4000 MHz

### Features

- wideband, 20 to 4000 MHz
- high IP3, +30.5 dBm typ.
- rugged, compact case 1.07"x0.61"(including mounting bracket)
- protected by US Patent, 6,943,629

### Applications

- radar
- instrumentation
- lab use



CASE STYLE: BW459

Connectors	Model	Price	Qty.
SMA	ZJL-4HG+	\$129.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)			MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	$f_L$	$f_U$	Typ.	Min. <sup>2</sup>	Flatness <sup>1</sup> Typ.	Output (1 dB Compr.) $L_w$	U	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
ZJL-4HG+	20	4000	17.0	13.0	±1.5	+15	+12	+13	4.5	+30.5	1.5	1.4	12	75

1. Flatness specified to 0.75  $f_U$ , dynamic range at 2 GHz.

2. 12.8dB Min. above 3600 MHz

Open load is not recommended, potentially can cause damage.

With no load derate max input power by 20 dB

$L_w$ = low range ( $f_L$  to  $f_U/2$ )

U= upper range ( $f_U/2$  to  $f_U$ )

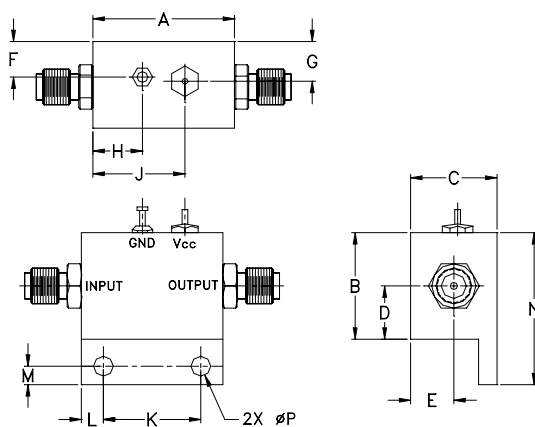
### Maximum Ratings

Operating Temperature -40°C to 75°C

Storage Temperature -55°C to 100°C

DC Voltage +13V Max.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
1.00	.75	.61	.38	.29	.25	.26	.35	.65	.688	.156	.13	1.07	.140	grams
25.40	19.05	15.49	9.65	7.37	6.35	6.60	8.89	16.51	17.48	3.96	3.30	27.18	3.56	25



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



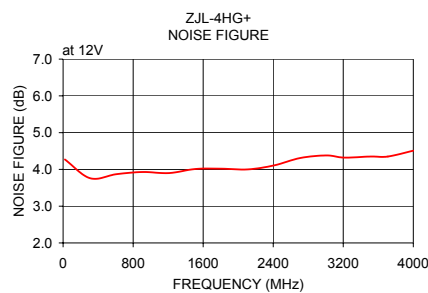
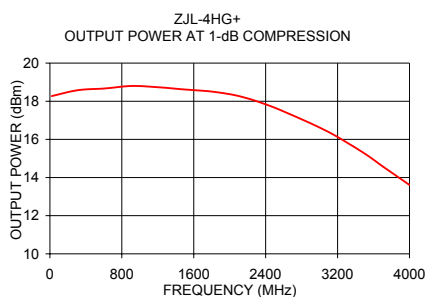
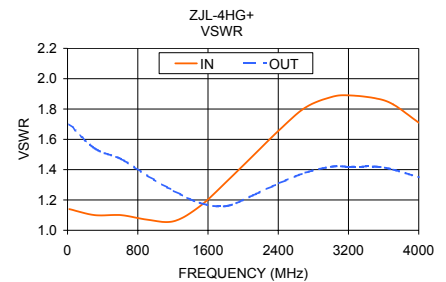
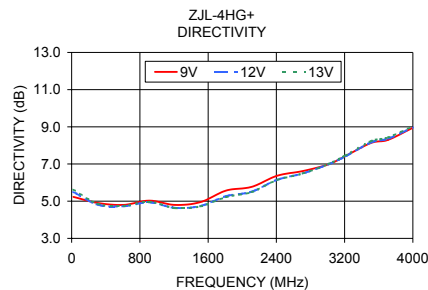
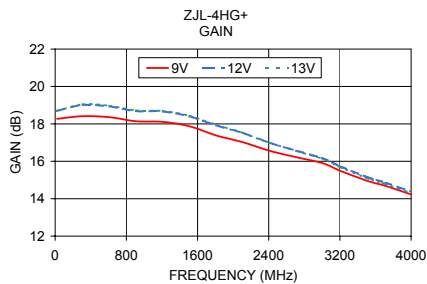
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# Typical Performance Data/Curves

# ZJL-4HG+

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		
20.00	18.27	18.70	18.69	5.23	5.50	5.63	1.14	1.70	4.27	18.27
310.00	18.41	19.01	19.05	4.90	4.81	4.85	1.10	1.54	3.76	18.58
610.00	18.36	18.93	18.97	4.80	4.73	4.75	1.10	1.47	3.87	18.67
910.00	18.14	18.68	18.72	5.03	4.94	4.97	1.07	1.36	3.93	18.80
1210.00	18.11	18.66	18.69	4.80	4.64	4.63	1.06	1.26	3.90	18.73
1510.00	17.87	18.40	18.43	4.95	4.74	4.72	1.16	1.18	4.01	18.61
1810.00	17.38	17.92	17.95	5.57	5.27	5.22	1.32	1.16	4.02	18.50
2110.00	17.02	17.51	17.52	5.77	5.51	5.49	1.49	1.23	4.00	18.26
2410.00	16.56	16.99	17.00	6.37	6.15	6.14	1.66	1.31	4.11	17.82
2710.00	16.22	16.57	16.55	6.62	6.49	6.49	1.81	1.38	4.31	17.24
3010.00	15.89	16.15	16.12	6.98	6.98	7.00	1.88	1.42	4.38	16.60
3210.00	15.48	15.72	15.67	7.43	7.41	7.46	1.89	1.42	4.32	16.10
3510.00	14.95	15.15	15.09	8.13	8.16	8.23	1.87	1.42	4.35	15.23
3710.00	14.69	14.86	14.79	8.30	8.36	8.43	1.83	1.40	4.35	14.56
4000.00	14.23	14.38	14.30	8.95	8.97	9.03	1.71	1.35	4.51	13.61



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