

# Coaxial High Power Amplifier

## ZHL-5W-1

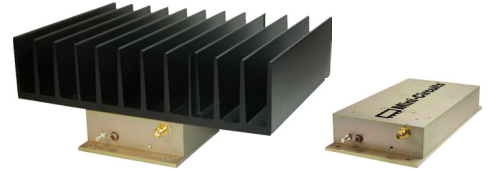
50Ω 5W 5 to 500 MHz

### Features

- High power, 5 Watt
- Wideband, 5 to 500 MHz
- High power output, +37dBm min.
- High gain, 40 dB Min.
- Low noise figure, 4 dB typ.
- High IP3, +49 dBm typ.

### Applications

- VHF/UHF
- Instrumentation
- laboratory



Model No.	ZHL-5W-1	ZHL-5W-1X <sup>▲</sup>
Case Style	DDD131	
Connectors	SMA	
Price (Qty.)	\$1,020.00 ea. (1-9)	\$995.00 ea. (1-9)

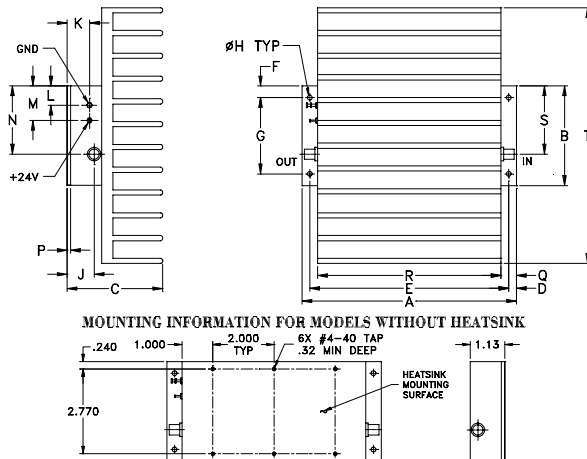
### Electrical Specifications

Parameter	ZHL-5W-1			ZHL-5W-1X <sup>▲</sup>			Units
	Min.	Typ.	Max.	Min	Typ.	Max.	
Frequency Range	5		500	5		500	MHz
Gain	40			40			dB
Gain Flatness			±1.7			±1.7	dB
Output Power at 1dB compression	+37			+37			dBm
Noise Figure		4.0			4.0		dB
Output third order intercept point		+49			+49		dBm
Input VSWR		2.0			2.0		:1
Output VSWR		2.5			2.5		:1
DC Supply Voltage		24	25		24	25	V
Supply Current			3.3			3.3	A

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

<sup>▲</sup> Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum temperature to 65°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 0.3°C/W max.

### Outline Drawing



### Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
Input RF Power (no damage)	0 dBm

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

### Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
7.00	3.25	3.13	.25	6.500	.38	2.500	.156	.88	.43	.62	1.00	2.63	.125	.50	6.00	2.23	8.35	grams*
177.80	82.55	79.50	6.35	165.10	9.65	63.50	3.96	22.35	10.92	15.75	25.40	66.80	3.18	12.70	152.40	56.64	212.09	1780

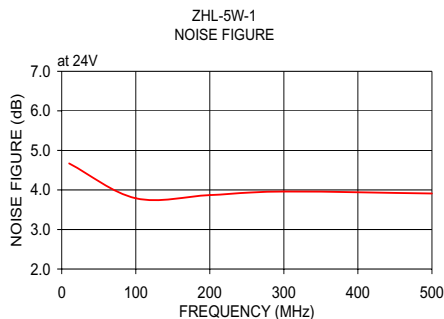
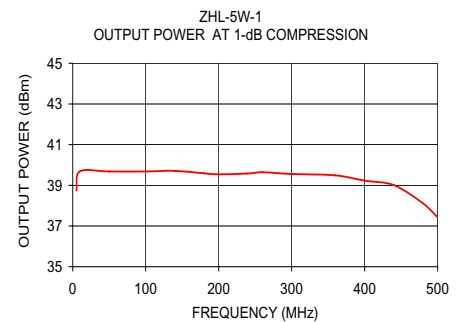
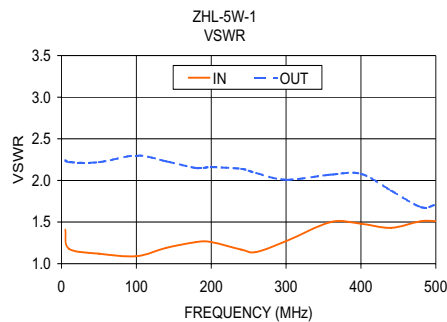
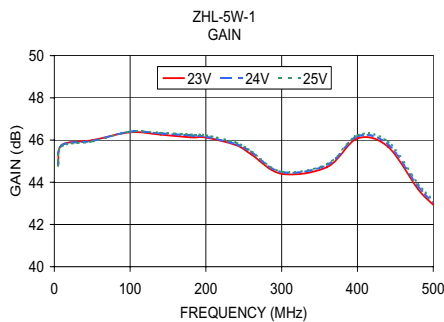
\*510 grams without heatsink

### 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.
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FREQUENCY (MHz)	GAIN (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	FREQUENCY (MHz)	NOISE FIGURE (dB)
	22V	24V	25V	IN	OUT			
5.00	44.82	44.80	44.79	1.41	2.24	38.75	10.00	4.67
10.00	45.77	45.76	45.71	1.18	2.22	39.69	100.00	3.79
50.00	45.99	45.96	45.93	1.12	2.22	39.68	200.00	3.87
100.00	46.37	46.40	46.40	1.09	2.30	39.68	300.00	3.96
140.00	46.26	46.32	46.35	1.19	2.23	39.71	500.00	3.91
180.00	46.13	46.22	46.27	1.26	2.15	39.59		
200.00	46.12	46.16	46.23	1.26	2.16	39.54		
240.00	45.76	45.80	45.87	1.17	2.14	39.58		
260.00	45.32	45.43	45.47	1.14	2.09	39.64		
300.00	44.40	44.48	44.50	1.27	2.01	39.56		
360.00	44.72	44.82	44.87	1.50	2.07	39.49		
400.00	46.08	46.18	46.23	1.48	2.08	39.23		
440.00	45.69	45.81	45.93	1.43	1.88	39.01		
480.00	43.67	43.80	43.92	1.51	1.68	38.11		
500.00	42.93	43.03	43.15	1.51	1.71	37.42		



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