

# Coaxial High Power Amplifier

ZHL-1000-3W

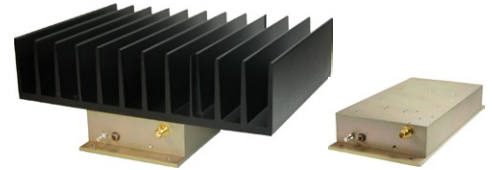
50Ω 3W 500 to 1000 MHz

## Features

- High power, 3 Watt
- Wideband, 500 to 1000 MHz
- High power output, +35dBm Min.
- High IP3, +45 dBm typ.
- High gain, 43 dB typ.
- Protected by US Patent, 6,943,629

## Applications

- VHF
- Cellular
- Instrumentation
- Laboratory



Model No.	ZHL-1000-3W	ZHL-1000-3WX
Case Style	DDD131	
Connectors	SMA	
Price (Qty.)	\$695.00 ea. (1-9)	\$670.00 ea. (1-9)

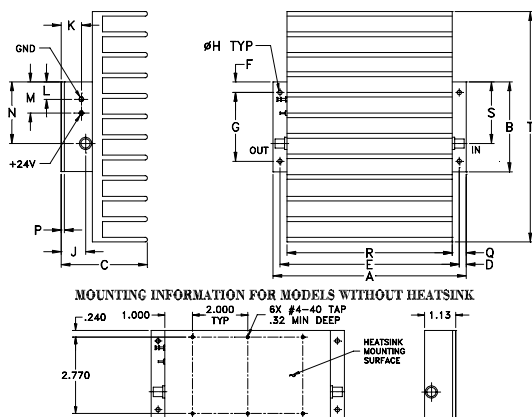
## Electrical Specifications

Parameter	ZHL-1000-3W			ZHL-1000-3WX			Units
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Frequency Range	500		1000	500		1000	MHz
Gain	38			38			dB
Gain Flatness <sup>1</sup>			±1.0			±1.0	dB
Output Power at 1dB compression	+35	+37		+35	+37		dBm
Noise Figure		3.5			3.5		dB
Output third order intercept point		+45		+45			dBm
Input VSWR		2.0			2.0		:1
Output VSWR		2.5			2.5		:1
DC Supply Voltage		24			24		V
Supply Current			2.25			2.25	A

1. 1.5 dB over temperature range -20°C to +65°C

Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 75°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 0.8°C/W max.

## Outline Drawing



## 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

## Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
Base Plate Temperature	75°C
DC Voltage	+25V
Input RF Power (no damage)	0 dBm

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



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IFIRF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).

REV. F  
M124323  
ZHL-1000-3W  
091015  
Page 1 of 2

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
	23V	24V	24.5V		24V	IN			
500.00	43.44	43.51	43.57	33.21	1.64	1.22	3.60	37.59	47.32
550.00	43.44	43.53	43.60	39.42	1.53	1.32	3.63	37.59	47.36
600.00	43.64	43.73	43.81	35.50	1.30	1.52	3.63	37.77	47.29
650.00	43.49	43.57	43.66	34.29	1.21	1.63	3.57	37.75	46.09
700.00	43.86	43.93	44.01	34.55	1.30	1.74	3.61	37.08	45.12
750.00	44.17	44.23	44.31	44.04	1.34	1.77	3.53	36.75	44.66
800.00	44.48	44.54	44.62	38.17	1.31	1.77	3.46	36.78	44.74
850.00	44.65	44.70	44.77	52.63	1.30	1.77	3.50	36.31	45.06
900.00	44.73	44.78	44.84	45.00	1.34	1.81	3.53	36.72	44.83
950.00	44.86	44.91	44.98	53.07	1.33	1.86	3.53	36.50	44.91
1000.00	44.89	44.95	45.04	42.88	1.19	1.88	3.55	36.24	44.26

