

High Power Amplifier

ZHL-1000-3W+

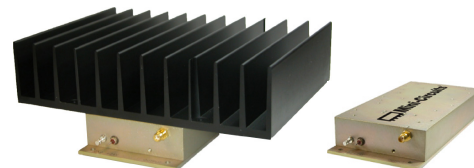
50Ω 3W 500 to 1000 MHz

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	

+RoHS Compliant

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

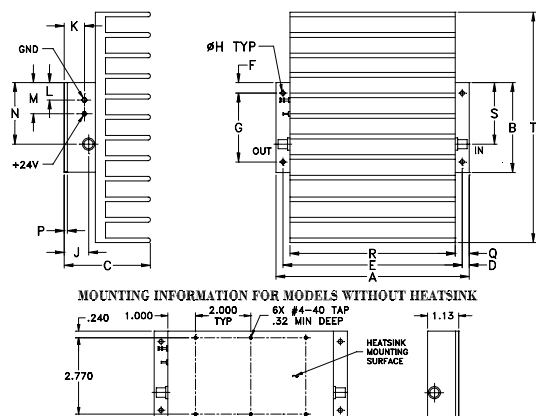
Electrical Specifications

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 ¹			±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



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.

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

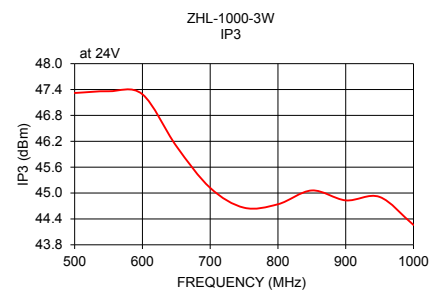
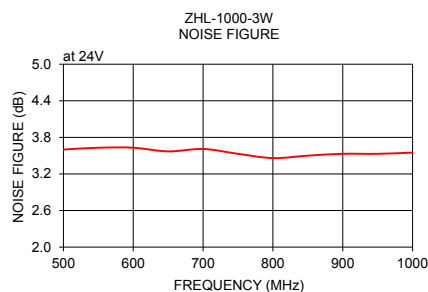
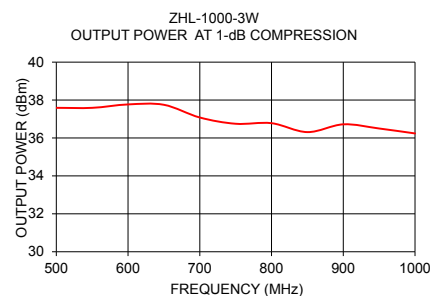
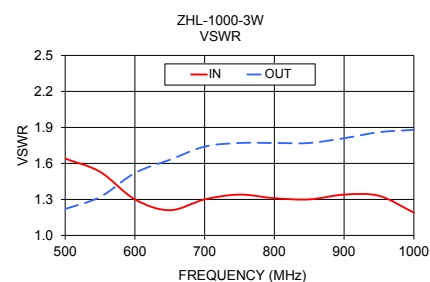
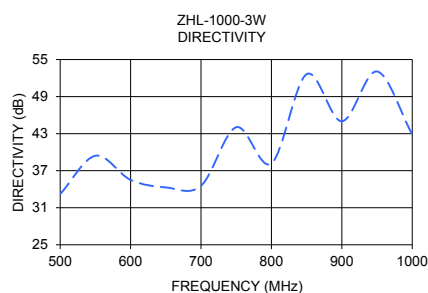
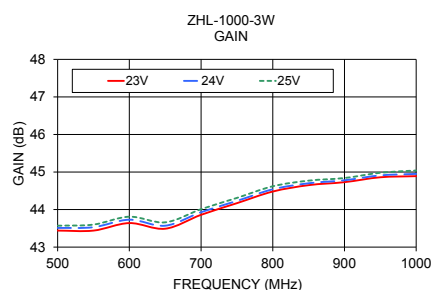
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FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
	23V	24V	24.5V		IN	OUT			
500.00	43.44	43.51	43.57	33.21	1.64	1.22	3.60	37.59	47.32
550.00	43.44	43.53	43.60	39.42	1.53	1.32	3.63	37.59	47.36
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



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