

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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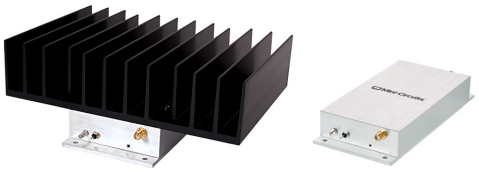
High Power Amplifier

50Ω 5W 5 to 500 MHz

ZHL-5W-1+
ZHL-5W-1X+

FEATURES

- High Power, 5 Watt
- Wideband, 5 to 500 MHz
- High Power Output, +37dBm Min.
- High Gain, 40 dB typ.
- Low Noise Figure, 4 dB typ.
- High IP3, +49 dBm typ.



Generic photo used for illustration purposes only

Model No.	ZHL-5W-1+	ZHL-5W-1X+▲
Case Style	DDD131	
Connectors	SMA	

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- VHF
- Instrumentation
- Laboratory

ELECTRICAL SPECIFICATIONS

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

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

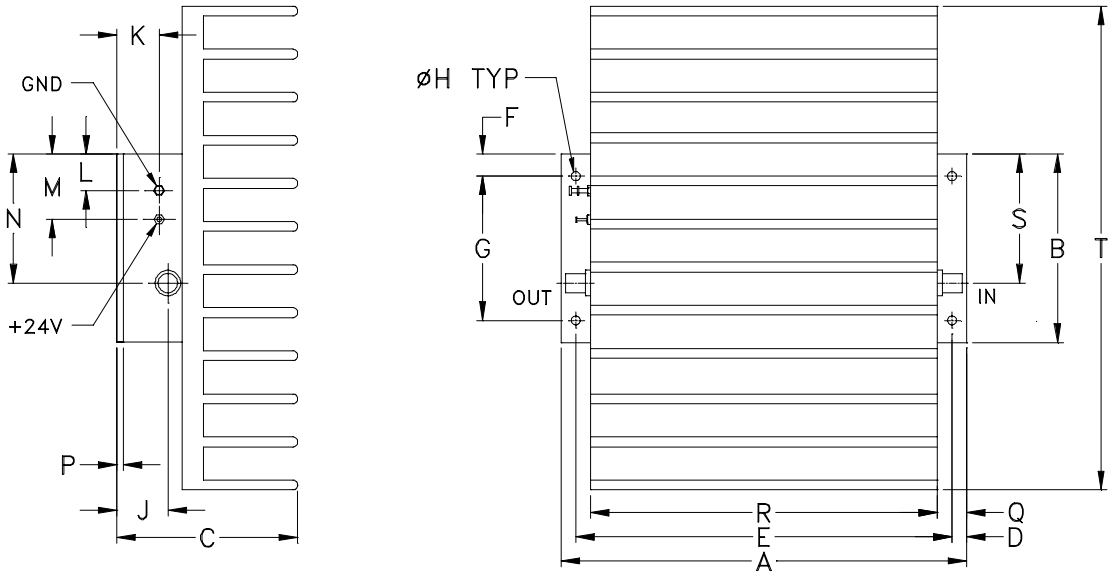
▲ Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 65°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 0.3°C/W max.

ABSOLUTE MAXIMUM RATINGS

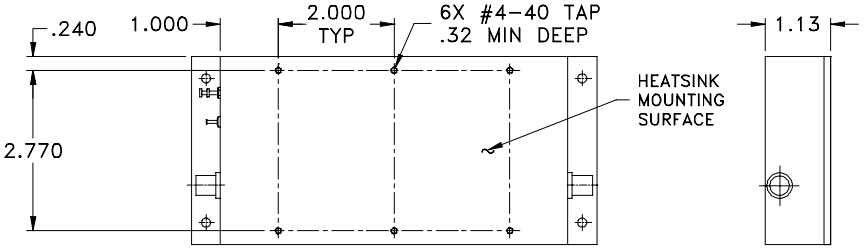
Parameter	Ratings
Operating Temperature	-20°C to +65°C
Storage Temperature	-55°C to +100°C
Input RF Power (no damage)	0 dBm

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

OUTLINE DRAWING



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



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

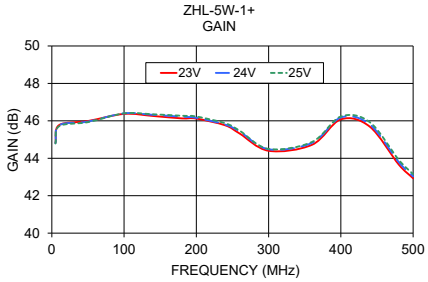
High Power Amplifier

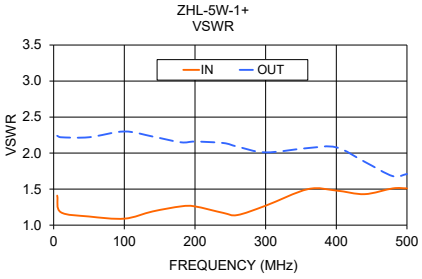
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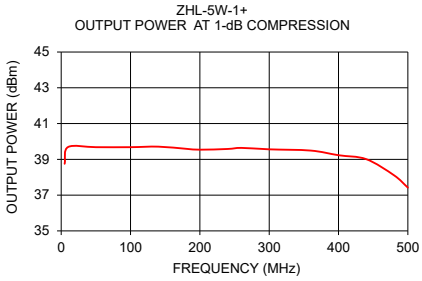
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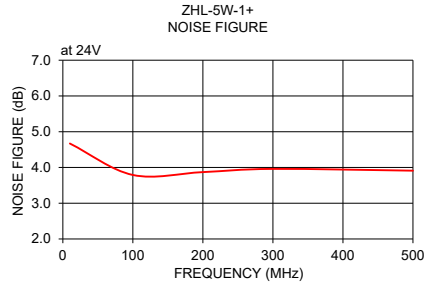
TYPICAL PERFORMANCE DATA AND CHARTS

FREQUENCY (MHz)	GAIN (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	FREQUENCY (MHz)	NOISE FIGURE (dB)
	23V	24V	25V	IN	OUT	24V		24V
5.00	44.82	44.8	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		









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/terms/viewterm.html

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We buy equipment

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