

# Coaxial Amplifier

## ZHL-1-2W+

50Ω High Power 2W 5 to 500 MHz

### Features

- wideband, 5 to 500 MHz
- high power output, +33 dBm min.
- high gain, +29 dB min.
- high IP3, +44 dBm typ.
- good matching VSWR, 1.5:1

### Applications

- VHF/UHF
- instrumentation
- laboratory



ZHL-1-2W+



ZHL-1-2WX+ ▲

Case Style: T35

Connectors	Model No.
BNC	ZHL-1-2W+ (shown)
BNC	ZHL-1-2WX+ (shown)
SMA	ZHL-1-2W-S+
SMA	ZHL-1-2WX-S+
N-TYPE	ZHL-1-2W-N+
N-TYPE	ZHL-1-2WX-N+

### +RoHS Compliant

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

### Electrical Specifications at 25°C

Parameter	Condition (MHz)	ZHL-1-2W+ ZHL-1-2WX+▲			Units
		Min.	Typ.	Max.	
Frequency Range		5	—	500	MHz
Gain	5-500	29	—	—	dB
Gain Flatness	5-500	—	—	±1.0	dB
Output Power at 1dB compression	5-500	+33	—	—	dBm
Noise Figure	5-500	—	7.0	—	dB
Output third order intercept point	5-500	—	+44	—	dBm
Input VSWR	5-500	—	1.5	—	:1
Output VSWR	5-500	—	1.5	—	:1
DC Supply Voltage		—	24	—	V
Supply Current		—	—	0.9	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 85°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 1.0°C/W max.

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
DC Voltage	+25V
Input RF Power (no damage)	+10 dBm

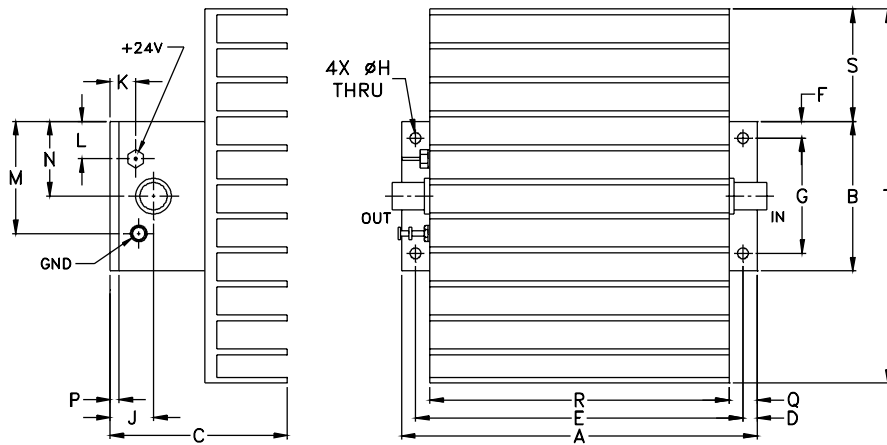
Permanent damage may occur if any of these limits are exceeded.

### Notes

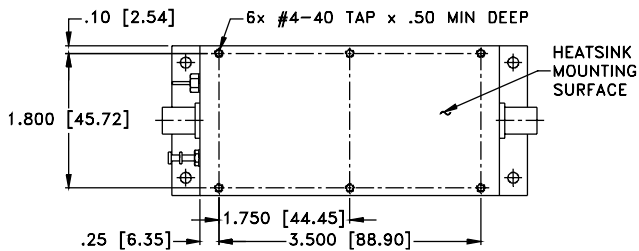
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## Outline Drawing for models with heatsink



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
4.75	2.00	2.37	.19	4.375	.23	1.540	.144	.58	.34	.50	1.50	1.00	.13	.38	4.00	1.50	5.0	grams*
120.65	50.80	60.20	4.83	111.13	5.84	39.12	3.66	14.73	8.64	12.70	38.10	25.40	3.30	9.65	101.60	38.10	127.00	700

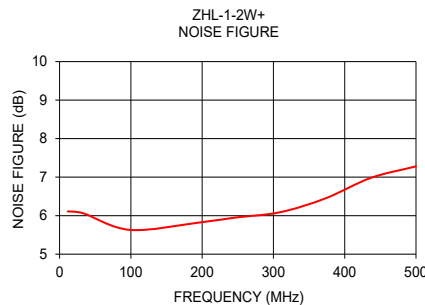
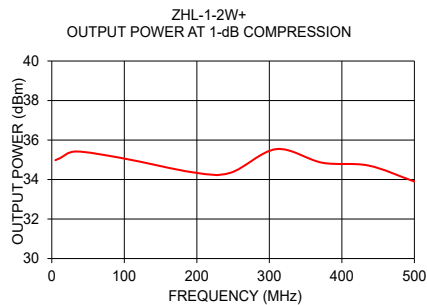
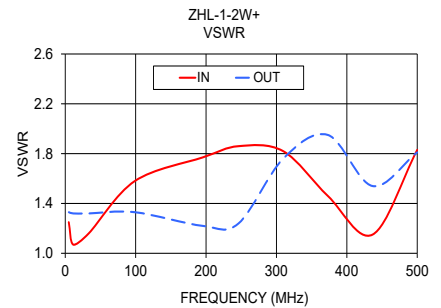
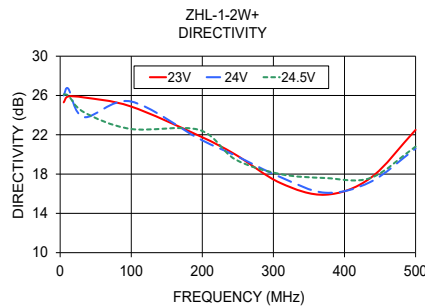
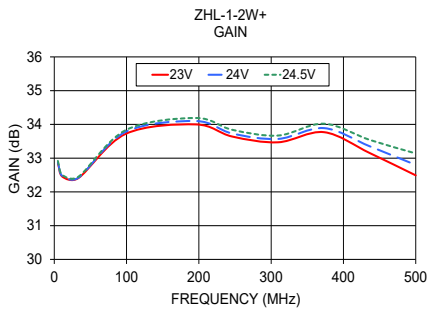
\*300 grams without heatsink

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FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	P <sub>OUT</sub> at 1 dB COMPR. (dBm)
	23V	24V	24.5V	23V	24V	24.5V	IN	OUT		
5.00	32.84	32.87	32.92	25.30	26.00	26.10	1.12	1.51		34.98
11.30	32.45	32.47	32.50	25.90	26.70	26.00	1.10	1.49	6.11	35.08
33.40	32.41	32.42	32.45	25.80	23.80	24.30	1.16	1.49	6.06	35.42
98.80	33.72	33.78	33.83	24.90	25.40	22.60	1.28	1.43	5.63	35.07
195.40	34.00	34.10	34.19	21.90	21.60	22.50	1.41	1.18	5.82	34.36
246.20	33.64	33.73	33.84	20.00	19.90	19.50	1.45	1.11	5.95	34.34
309.60	33.47	33.57	33.67	17.10	17.70	18.00	1.48	1.19	6.09	35.54
373.10	33.77	33.89	34.02	15.90	16.10	17.60	1.51	1.29	6.45	34.85
436.50	33.15	33.35	33.54	17.60	17.20	17.60	1.56	1.37	6.98	34.71
500.00	32.49	32.80	33.14	22.50	20.60	20.80	1.59	1.57	7.28	33.90



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