



## COAXIAL

# Medium High Power Amplifier **ZHL-3A+**

50Ω 0.4 to 150 MHz

### FEATURES

- Medium-High Power, +29.5 dBm min.
- High IP3, +38 dBm typ.

### APPLICATIONS

- HF/VHF
- Instrumentation
- Communication Systems



Generic photo used for illustration purposes only

Model No.	ZHL-3A+	ZHL-3A-S+
Case Style	S32	
Connectors	BNC	SMA

#### +RoHS Compliant

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

### ELECTRICAL SPECIFICATIONS

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		0.4		150	MHz
Gain	0.4 - 150	24			dB
Gain Flatness	0.4 - 150			±1.0	dB
Output Power at 1 dB compression	0.4 - 150	+29.5			dBm
Output third order intercept point	0.4 - 150		+38		dBm
Noise Figure	0.4 - 150		11.0		dB
Input VSWR	0.4 - 150			2.0	:1
Output VSWR	0.4 - 150			2.0	:1
DC Supply Voltage			+24		V
Supply Current				0.6	A

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

### ABSOLUTE MAXIMUM RATINGS

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

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

REV. H  
ECO-017949  
ZHL-3A+  
MCL NY  
230524



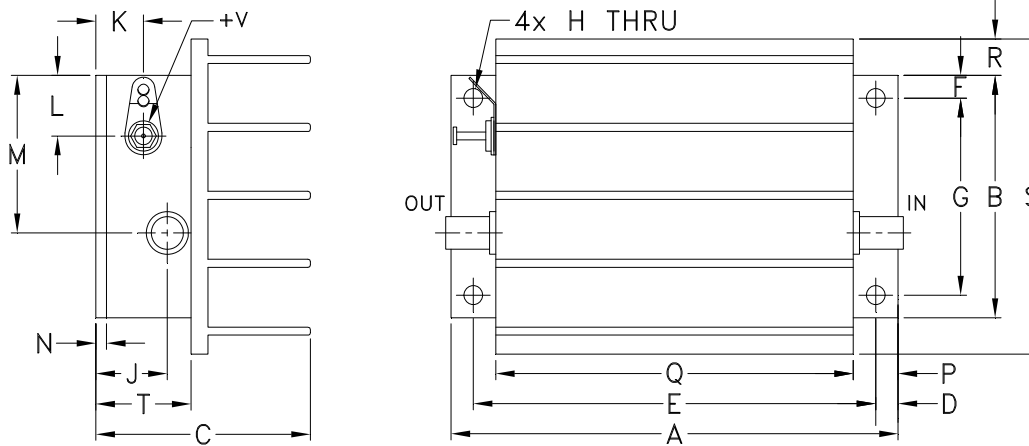


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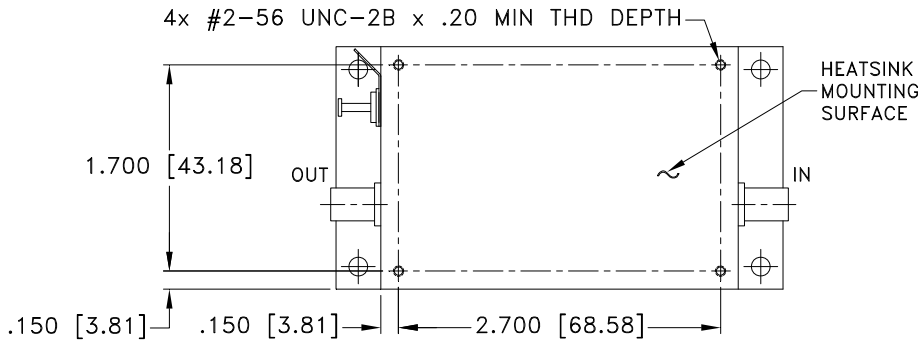
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## OUTLINE DRAWING



## 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	
3.75	2.00	1.80	.19	3.375	.19	1.625	.144	.50	.40	.50	1.30	.10	.38	3.00	.30	2.60	.80	grams	
95.25	50.80	45.72	4.83	85.73	4.83	41.28	3.66	12.70	10.16	12.70	33.02	2.54	9.65	76.20	7.62	66.04	20.32	220.0	
																		wt. w/o heat sink	150



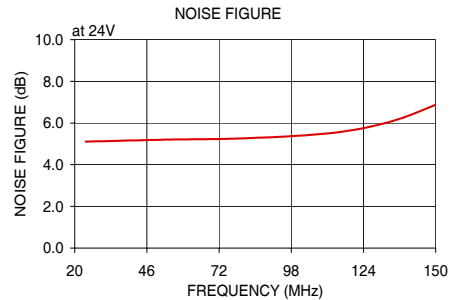
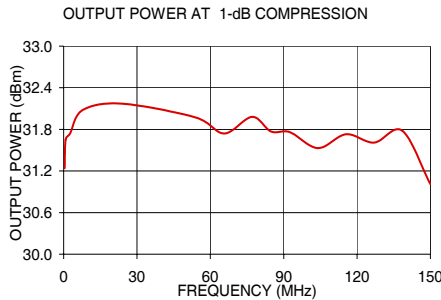
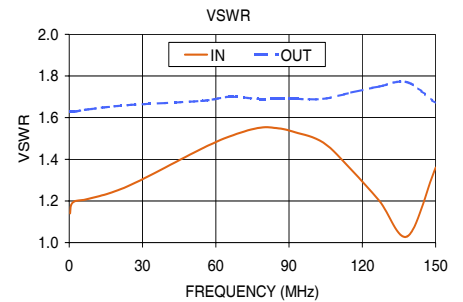
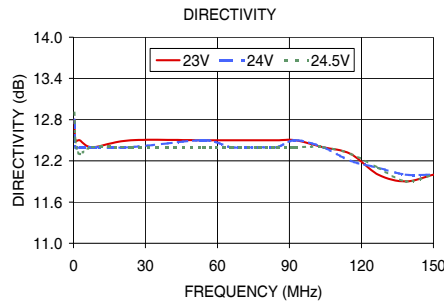
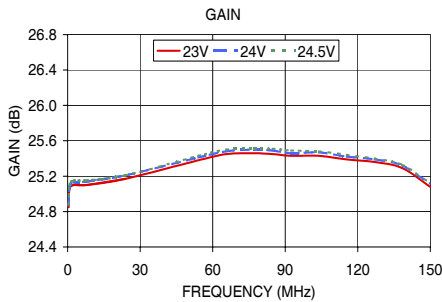
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### TYPICAL PERFORMANCE DATA/CURVES

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	23V	24V	24.5V	23V	24V	24.5V	IN	OUT	24V	24V
0.40	24.85	24.87	24.88	12.80	12.80	12.90	1.14	1.63	—	31.24
0.80	25.06	25.08	25.10	12.50	12.40	12.50	1.18	1.63	—	31.65
2.60	25.10	25.13	25.15	12.50	12.40	12.30	1.20	1.63	—	31.74
7.80	25.10	25.14	25.15	12.40	12.40	12.40	1.21	1.64	—	32.08
23.90	25.17	25.21	25.21	12.50	12.40	12.40	1.27	1.66	5.11	32.17
54.10	25.38	25.41	25.43	12.50	12.50	12.40	1.45	1.68	5.21	31.97
65.60	25.45	25.48	25.50	12.50	12.40	12.40	1.51	1.70	5.22	31.74
77.10	25.46	25.50	25.51	12.50	12.40	12.40	1.55	1.69	5.25	31.98
84.80	25.45	25.49	25.51	12.50	12.40	12.40	1.55	1.69	5.29	31.77
92.50	25.43	25.46	25.49	12.50	12.50	12.40	1.53	1.69	5.33	31.76
104.00	25.43	25.47	25.48	12.40	12.40	12.40	1.48	1.69	5.42	31.53
115.50	25.39	25.42	25.44	12.30	12.20	12.30	1.35	1.72	5.57	31.73
127.00	25.36	25.39	25.40	12.00	12.10	12.10	1.20	1.75	5.84	31.61
138.50	25.29	25.32	25.33	11.90	12.00	11.90	1.03	1.77	6.27	31.78
150.00	25.08	25.11	25.12	12.00	12.00	12.00	1.36	1.67	6.88	31.01




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