

# Coaxial Amplifier

## ZHL-6A+

50Ω Medium Power 0.0025 to 500 MHz



BNC version shown

CASE STYLE: S32

### Features

- wideband, 0.0025 to 500 MHz
- high IP3, +34 dBm typ.
- protected by US Patent, 6,943,629

### Applications

- HF/VHF
- communication systems
- UHF TV
- lab use

Connectors	Model
BNC	ZHL-6A+
SMA	ZHL-6A-S+
N-TYPE	ZHL-6A-N+

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

### Electrical Specifications

MODEL NO.	FREQ. (MHz)		GAIN (dB)			MAXIMUM POWER OUTPUT (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	$f_L$	$f_U$	Typ.	Min.	Max.	Flatness (1 dB Compr.)	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (A) Max.
ZHL-6A+	0.0025	500	25	21	±1.2	+22	+10	9.5*	+34	1.8	2.0*	24	0.350

**Caution!** Transient voltage occurring at RF output upon turn-on is approximately 50% of the applied DC power supply voltage. User should protect equipment fed by this amplifier.

\* Noise Figure continually increases from 70 MHz to 10 MHz by approximately 4dB; output VSWR 2.8:1 below 30 MHz  
Open load is not recommended, potentially can cause damage. With no load derate max input power by 20 dB

### Maximum Ratings

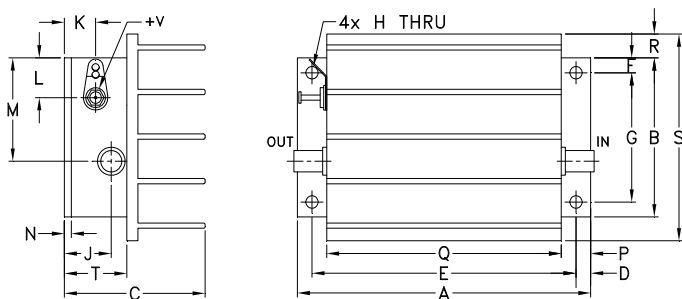
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

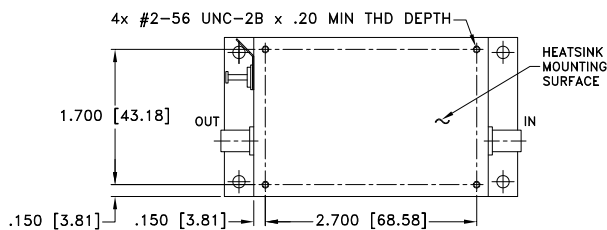
DC Voltage +24.5V Max.

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	
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

#### Notes

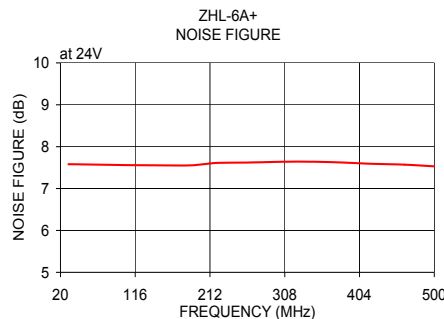
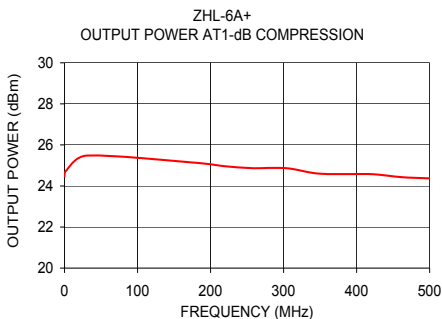
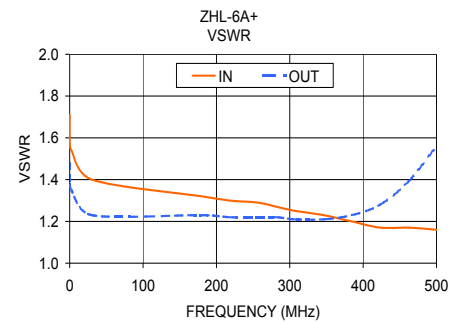
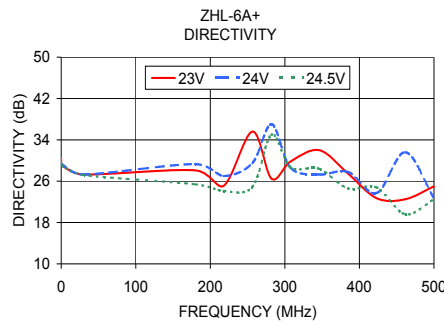
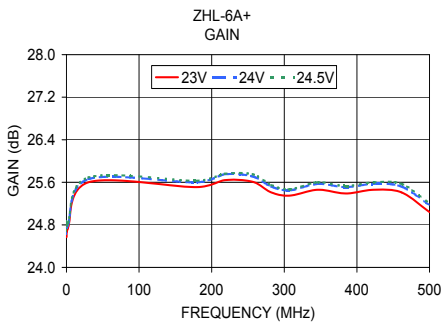
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Page 1 of 2

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		
0.0025	24.57	24.64	24.69	30.40	30.50	30.40	1.71	1.48	—	24.48
0.01	24.73	24.82	24.86	29.80	29.80	29.70	1.57	1.38	—	24.62
0.18	24.67	24.75	24.79	29.30	29.20	29.20	1.56	1.37	—	24.65
2.30	24.75	24.81	24.85	28.90	29.10	28.90	1.54	1.35	—	24.75
30.20	25.60	25.66	25.69	27.30	27.30	27.20	1.40	1.23	7.58	25.48
179.50	25.51	25.60	25.63	28.10	29.30	25.40	1.32	1.23	7.55	25.13
217.90	25.64	25.75	25.76	25.10	27.00	24.10	1.30	1.22	7.61	24.97
256.40	25.61	25.71	25.75	35.60	29.50	24.90	1.29	1.22	7.62	24.87
282.10	25.41	25.52	25.55	26.50	37.00	35.00	1.27	1.22	7.63	24.88
307.70	25.35	25.45	25.47	29.80	28.60	28.70	1.25	1.21	7.64	24.85
346.10	25.46	25.57	25.60	32.00	27.30	28.40	1.23	1.21	7.64	24.61
384.60	25.39	25.51	25.53	27.50	27.80	24.60	1.20	1.23	7.62	24.58
423.10	25.46	25.57	25.60	22.70	23.70	24.80	1.17	1.28	7.59	24.57
461.50	25.41	25.52	25.57	22.50	31.60	19.60	1.17	1.39	7.57	24.43
500.00	25.04	25.17	25.21	25.00	22.70	22.50	1.16	1.56	7.53	24.37



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