

# Coaxial Amplifier

## ZHL-2-S+ ZHL-2X-S+

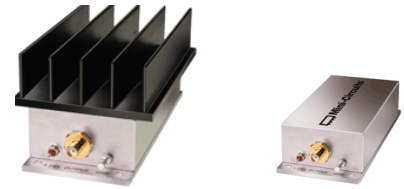
50Ω Medium High Power 10 to 1000 MHz

### Features

- wideband, 10 to 1000 MHz
- high IP3, +42 dBm typ.
- medium high power, 28 dB min.

### Applications

- VHF/UHF
- cellular
- instrumentation
- laboratory



ZHL-2-S+

ZHL-2X-S+

Case Style: T34

Connectors	Model No.
SMA	ZHL-2-S+
SMA	ZHL-2X-S+ <sup>▲</sup>

### +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-2-S+ ZHL-2X-S+ <sup>▲</sup>			Units
		Min.	Typ.	Max.	
Frequency Range		10	—	1000	MHz
Gain	10-1000	16	20	24	dB
Gain Flatness	10-1000	—	±0.9	±1.4	dB
Output Power at 1dB compression	10-1000	+28	+29	—	dBm
Output Power at 3dB compression	10-1000	+29	+30	—	dBm
Noise Figure	10-1000	—	9.0	—	dB
Output third order intercept point	10-1000	—	+42	—	dBm
Input VSWR	10-1000	—	—	2.0	:1
Output VSWR	10-1000	—	—	2.1	: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.

<sup>▲</sup>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 1.35°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)	+15 dBm

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

### Notes

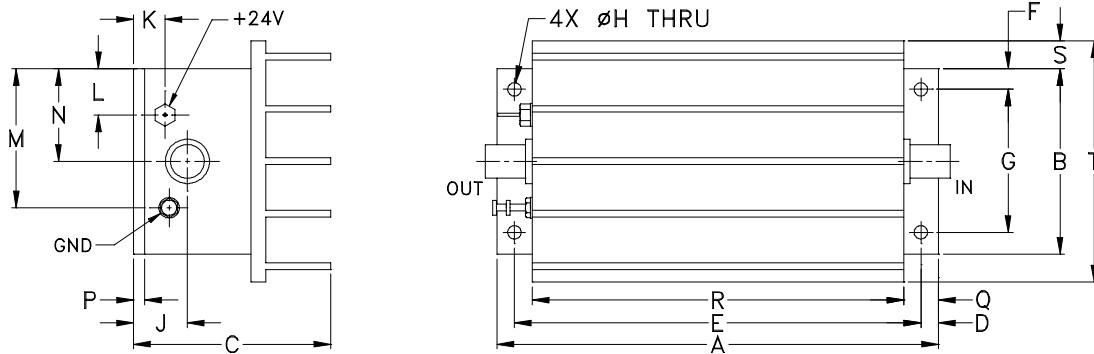
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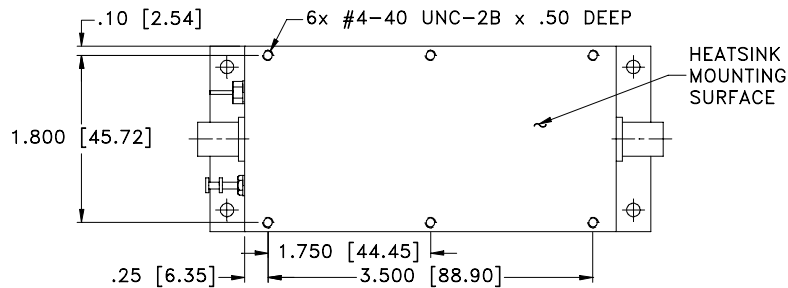
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M171494  
ZHL-2+  
CH/CP/AM  
190228  
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## Outline Drawing for models with heatsink



## 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	2.12	.19	4.375	.23	1.540	.144	.58	.34	.50	1.50	1.00	.12	.38	4.00	.30	2.60	grams*
120.65	50.80	53.85	4.83	111.13	5.84	39.12	3.66	14.73	8.64	12.70	38.10	25.40	3.05	9.65	101.60	7.62	66.04	440.0

\*325 grams without heatsink

### Notes

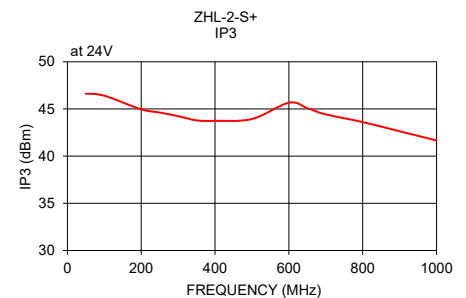
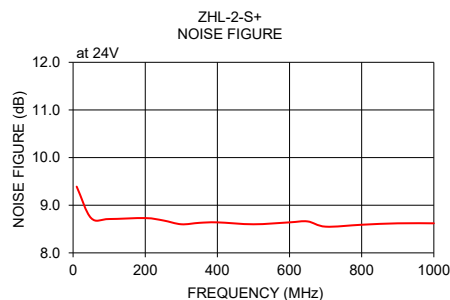
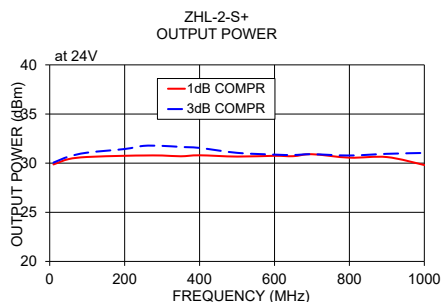
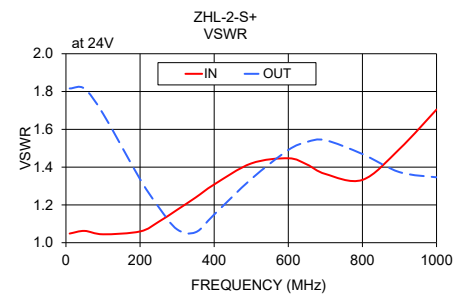
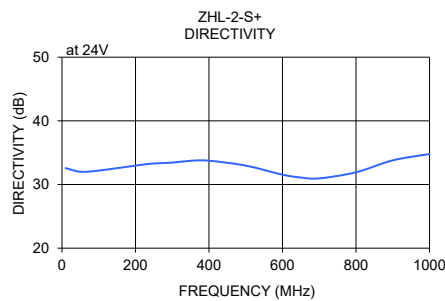
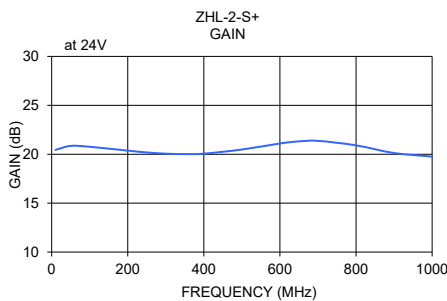
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# Typical Performance Data/Curves

## ZHL-2-S+ ZHL-2X-S+

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)	IP3 (dBm)
	24V	24V	IN	OUT	24V	24V	24V
10.00	20.45	32.57	1.05	1.82	29.87	9.39	45.49
50.00	20.85	32.00	1.06	1.82	30.41	8.73	46.62
100.00	20.76	32.18	1.04	1.68	30.63	8.71	46.40
200.00	20.37	32.96	1.06	1.34	30.75	8.73	44.96
250.00	20.18	33.30	1.11	1.19	30.78	8.68	44.62
300.00	20.06	33.43	1.17	1.07	30.78	8.60	44.23
350.00	20.01	33.72	1.24	1.06	30.70	8.63	43.79
400.00	20.06	33.73	1.31	1.15	30.80	8.64	43.74
500.00	20.48	32.96	1.42	1.34	30.67	8.60	43.93
600.00	21.10	31.54	1.45	1.49	30.75	8.64	45.66
650.00	21.31	31.09	1.41	1.53	30.71	8.66	45.08
700.00	21.37	30.96	1.36	1.54	30.91	8.55	44.42
800.00	20.91	31.92	1.33	1.47	30.56	8.59	43.61
900.00	20.12	33.79	1.50	1.37	30.62	8.62	42.63
1000.00	19.76	34.78	1.70	1.35	29.81	8.62	41.66



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