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# Medium High Power Amplifier **ZHL-4240W+** **ZHL-4240WX+**

50Ω 10 to 4200 MHz

## FEATURES

- Wideband, 10 to 4200 MHz
- High Gain, 39 dB Min.
- High IP3, +38 dBm typ.



Generic photo used for illustration purposes only

Model No.	ZHL-4240W+	ZHL-4240WX+ <sup>▲</sup>
Case Style	U36	
Connectors	SMA	

## APPLICATIONS

- Communication Systems
- Cellular
- Instrumentation
- Laboratory

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

## ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	ZHL-4240W+ ZHL-4240WX+ <sup>▲</sup>			Units
	Min.	Typ.	Max.	
Frequency Range	10	—	4200	MHz
Gain	39	42	47	dB
Gain Flatness	—	±1.3	±1.8	dB
Output Power at 1dB compression <sup>1</sup>	+28	+30	—	dBm
Output Power at 3dB compression <sup>2</sup>	+29	+31	—	dBm
Noise Figure	—	6.0	—	dB
Output third order intercept point	—	+38	—	dBm
Input VSWR	—	—	2.5	:1
Output VSWR	—	—	2.5	:1
DC Supply Voltage	—	+15	—	V
Supply Current	—	—	1.0	A

Open load is not recommended, potentially can cause damage.  
With no load derate max. input power by 20 dB.  
1. +27 dBm at 3700-4200 MHz  
2. +28 dBm at 3700-4200 MHz

<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 1.3°C/W max.

## ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-20°C to +65°C
Storage Temperature	-55°C to +100°C
DC Voltage	+20V
Input RF Power (no damage)	-5 dBm

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

REV. A  
ECO-017731  
ZHL-4240W+  
MCL NY  
230504





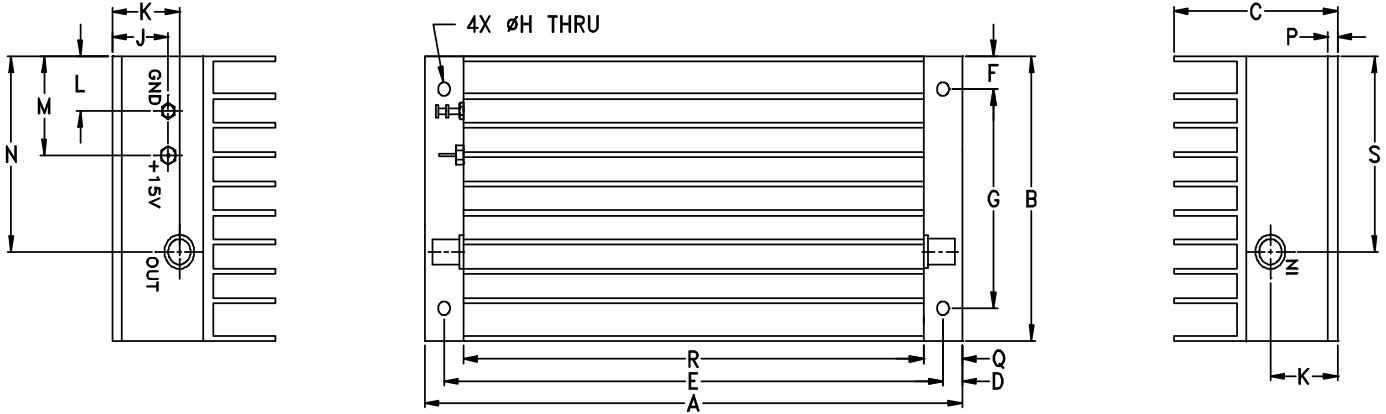
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# Medium High Power Amplifier

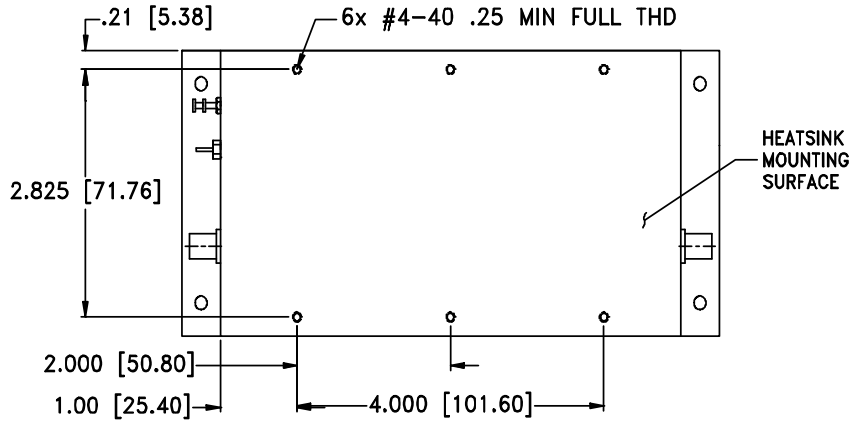
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50Ω 10 to 4200 MHz

## 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	wt
7.00	3.25	2.13	.25	6.500	.38	2.500	.156	.73	.88	.63	1.13	2.23	.125	.50	6.00	2.23	grams
177.80	82.55	54.10	6.35	165.10	9.65	63.50	3.96	18.54	22.35	16.00	28.70	56.64	3.18	12.70	152.40	56.64	900

\*600 grams without heatsink



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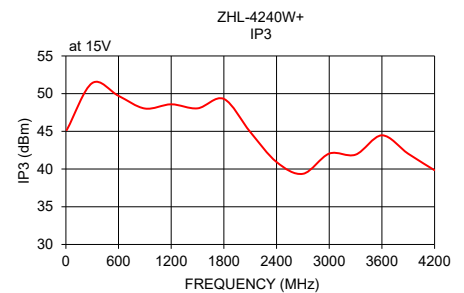
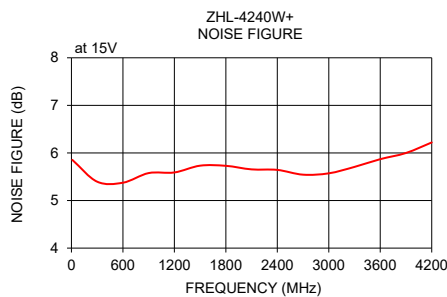
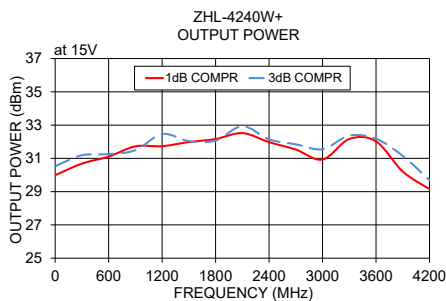
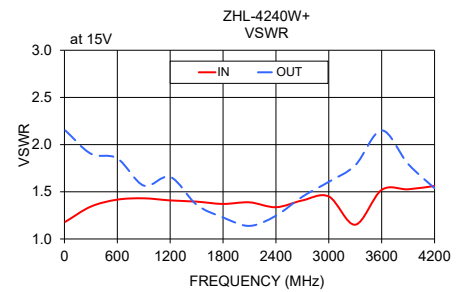
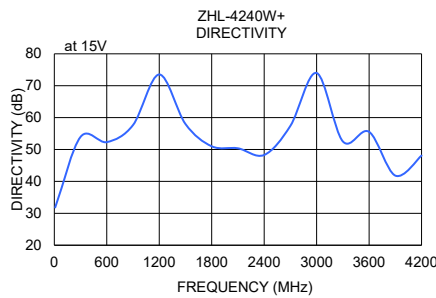
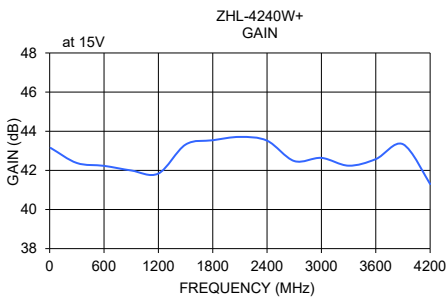
# Medium High Power Amplifier ZHL-4240W+ ZHL-4240WX+

Mini-Circuits

50Ω 10 to 4200 MHz

### TYPICAL PERFORMANCE DATA / GRAPHS

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)	IP3 (dBm)
	15V	15V	IN	OUT	15V	15V	15V
10	43.15	31.85	1.18	2.15	30.01	5.85	45.17
300	42.38	53.96	1.34	1.90	30.69	5.40	51.40
600	42.23	52.31	1.42	1.85	31.11	5.37	49.71
900	41.99	57.66	1.43	1.57	31.72	5.58	48.03
1200	41.84	73.51	1.41	1.66	31.73	5.59	48.59
1500	43.32	57.99	1.40	1.36	31.98	5.73	48.05
1800	43.54	51.00	1.37	1.23	32.16	5.73	49.30
2100	43.71	50.38	1.39	1.14	32.52	5.65	44.92
2400	43.52	48.29	1.34	1.25	31.97	5.64	40.93
2700	42.48	57.42	1.41	1.45	31.53	5.54	39.37
3000	42.64	73.99	1.45	1.61	30.93	5.57	42.05
3300	42.24	52.54	1.15	1.78	32.17	5.71	41.91
3600	42.57	55.54	1.52	2.15	32.02	5.87	44.47
3900	43.34	41.82	1.53	1.80	30.21	6.00	42.03
4200	41.30	48.10	1.56	1.54	29.15	6.22	39.84



- 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](http://www.minicircuits.com/terms/viewterm.html)

