

High Power Amplifier

ZHL-5W-2G+

50Ω 5W 800 to 2000 MHz

Features

- High power, 5 Watt
- Low current consumption, 1.7A typ.
- High IP3, +44 dBm typ.
- Usable over 700 to 2200 MHz
- Internal power regulator (current remains constant over 22 to 28V).
- No damage with an open or short output load under full CW output power

Applications

- Cellular
- PCN
- GSM
- ISM
- Lab Test



Model No.	ZHL-5W-2G-S+	ZHL-5W-2GX+▲
Case Style	DDD131	
Connectors	SMA	
Price (Qty.)	\$995.00 ea. (1-9)	\$945.00 ea. (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

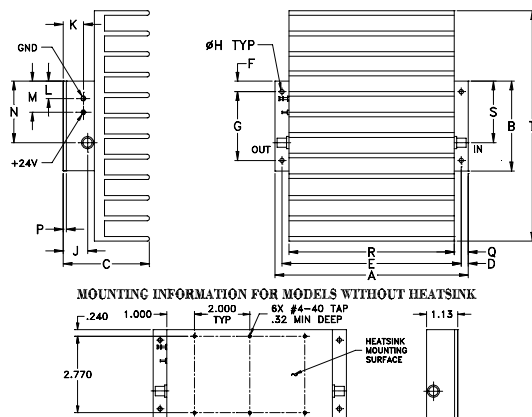
Electrical Specifications

Parameter	ZHL-5W-2G(+)			ZHL-5W-2GX(+) [▲]			Units
	Min.	Typ.	Max.	Min	Typ.	Max.	
Frequency Range	800		2000	800		2000	MHz
Gain	40	45	50	40	45	50	dB
Gain Flatness			±2.1			±2.1	dB
Output Power at 1dB compression	+36	+37		+36	+37		dBm
Saturated Output Power at 3dB compression	+37	+38		+37	+38		
Noise Figure		8.0			8.0		dB
Output third order intercept point		+44			+44		dBm
Input VSWR		1.7			1.7		:1
Output VSWR		1.5			1.5		:1
DC Supply Voltage		24	28		24	28	V
Supply Current ¹			2.0			2.0	A

1. Power Supply should be capable of delivering 3A at start up.

▲ Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 87°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 0.46°C/W max.

Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
7.00	3.25	3.13	.25	6.500	.38	2.500	.156	.88	.43	.62	1.00	2.63	.125	.50	6.00	2.23	8.35	grams*
177.80	82.55	79.50	6.35	165.10	9.65	63.50	3.96	22.35	10.92	15.75	25.40	66.80	3.18	12.70	152.40	56.64	212.09	1780

*510 grams without heatsink

Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
Input RF Power (no damage)	+1 dBm

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

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

For detailed performance specs
& shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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/MCLStore/terms.jsp.

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FREQUENCY (MHz)	GAIN (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	FREQUENCY (MHz)	IP3 (dBm)	NOISE FIGURE (dB)
	22V	24V	28V	IN	OUT				
800.00	44.61	44.83	44.36	1.31	1.18	36.16	800.00	44.07	9.00
900.00	45.71	45.92	45.45	1.33	1.29	36.81	1000.00	44.17	9.00
1000.00	46.27	46.48	46.03	1.37	1.27	37.09	1250.00	44.16	9.15
1100.00	46.33	46.54	46.08	1.39	1.11	37.14	1500.00	44.76	9.18
1200.00	45.79	45.98	45.47	1.42	1.19	36.72	1750.00	45.25	8.91
1300.00	44.86	45.04	44.55	1.44	1.24	36.30	2000.00	44.64	8.59
1350.00	44.53	44.71	44.25	1.43	1.19	36.06			
1400.00	44.34	44.54	44.09	1.43	1.09	35.79			
1450.00	44.22	44.43	43.96	1.46	1.07	35.73			
1500.00	44.08	44.29	43.77	1.47	1.20	35.72			
1550.00	43.87	44.08	43.51	1.44	1.35	35.85			
1600.00	43.70	43.91	43.29	1.44	1.41	35.95			
1650.00	43.60	43.80	43.15	1.41	1.43	36.19			
1700.00	43.65	43.85	43.21	1.39	1.35	36.63			
1750.00	43.67	43.88	43.23	1.35	1.24	37.02			
1800.00	44.04	44.26	43.58	1.30	1.18	37.59			
1850.00	44.29	44.51	43.80	1.24	1.24	37.99			
1900.00	44.48	44.70	43.97	1.16	1.28	38.31			
1950.00	44.59	44.81	44.10	1.09	1.27	38.22			
2000.00	44.72	44.97	44.32	1.04	1.21	37.49			

