



COAXIAL

High Power Amplifier

ZHL-5W-2G-S+ ZHL-5W-2GX+

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
- No damage with an open or short output load under full CW output power



Generic photo used for illustration purposes only

Model No.	ZHL-5W-2G-S+	ZHL-5W-2GX+▲
Case Style	DDD131	
Connectors	SMA	

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

APPLICATIONS

- Cellular
- PCN
- GSM
- ISM
- Lab Test

ELECTRICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Units
Frequency Range	800	—	2000	MHz
Gain	40	45	50	dB
Gain Flatness	—	—	±2.1	dB
Output Power at 1dB compression	+36	+37	—	dBm
Saturated Output Power at 3dB compression	+37	+38	—	dBm
Noise Figure	—	8.0	—	dB
Output third order intercept point	—	+44	—	dBm
Input VSWR	—	1.7	—	:1
Output VSWR	—	1.5	—	:1
DC Supply Voltage	—	24	28	V
Supply Current ¹	—	—	2.5	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.

ABSOLUTE 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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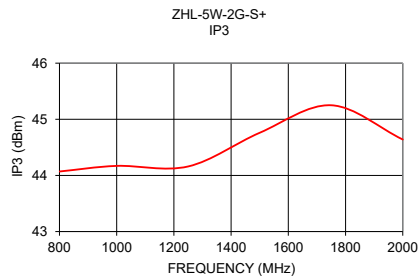
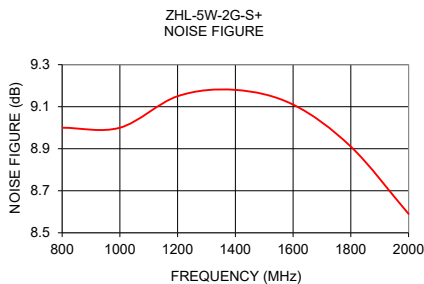
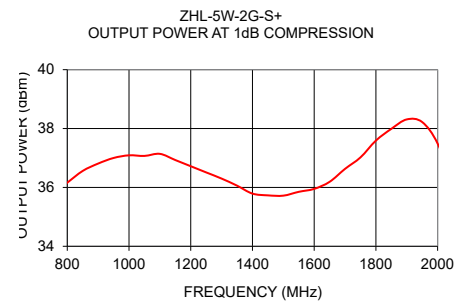
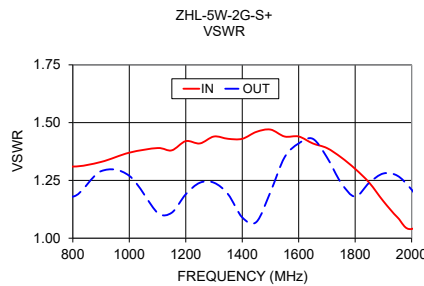
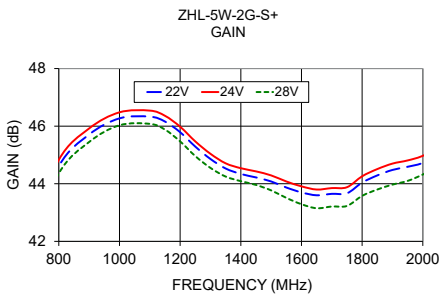
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TYPICAL PERFORMANCE DATA AND CHARTS

FREQ. (MHz)	GAIN (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	FREQ. (MHz)	IP3 (dBm)	NOISE FIGURE (dB)
	22V	24V	28V	IN	OUT				
800	44.61	44.83	44.36	1.31	1.18	36.16	800	44.07	9.00
900	45.71	45.92	45.45	1.33	1.29	36.81	1000	44.17	9.00
1000	46.27	46.48	46.03	1.37	1.27	37.09	1250	44.16	9.15
1100	46.33	46.54	46.08	1.39	1.11	37.14	1500	44.76	9.18
1200	45.79	45.98	45.47	1.42	1.19	36.72	1750	45.25	8.91
1300	44.86	45.04	44.55	1.44	1.24	36.30	2000	44.64	8.59
1350	44.53	44.71	44.25	1.43	1.19	36.06	-	-	-
1400	44.34	44.54	44.09	1.43	1.09	35.79	-	-	-
1450	44.22	44.43	43.96	1.46	1.07	35.73	-	-	-
1500	44.08	44.29	43.77	1.47	1.20	35.72	-	-	-
1550	43.87	44.08	43.51	1.44	1.35	35.85	-	-	-
1600	43.70	43.91	43.29	1.44	1.41	35.95	-	-	-
1650	43.60	43.80	43.15	1.41	1.43	36.19	-	-	-
1700	43.65	43.85	43.21	1.39	1.35	36.63	-	-	-
1750	43.67	43.88	43.23	1.35	1.24	37.02	-	-	-
1800	44.04	44.26	43.58	1.30	1.18	37.59	-	-	-
1850	44.29	44.51	43.80	1.24	1.24	37.99	-	-	-
1900	44.48	44.70	43.97	1.16	1.28	38.31	-	-	-
1950	44.59	44.81	44.10	1.09	1.27	38.22	-	-	-
2000	44.72	44.97	44.32	1.04	1.21	37.49	-	-	-



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

