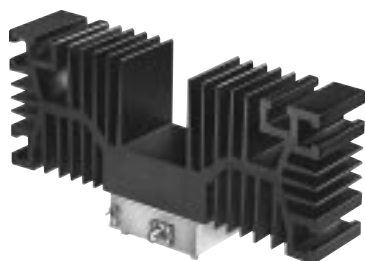


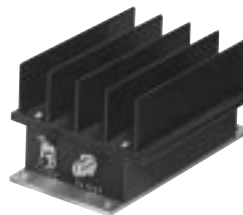
MEDIUM HIGH POWER 50 kHz to 8 GHz



✦ ZVE



ZHL-case T34



ZHL-case S32



ZHL-42

up to 1W (+30 dBm) output

MODEL NO.	FREQ. (MHz) f_L-f_U	GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR Max.		DC POWER		CASE STYLE	CONNECTOR	PRICE \$
		Min.	Flatness Max.	Output (1 dB Comp.) Min.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V)	Current (A)			
✦ ZVE-8G	2000-8000	30	±2.0	+30✦	+20	4	40	2:1	2:1	12	2.0	BN333	—	1095.00
ZHL-1A	2-500	16	±1.0	+28	+20	11	+38	2:1	2:1	24	0.60	S32	—	229.00
ZHL-2	10-1000	16	±1.0	+29	+15	9	+38	2:1	2:1	24	0.60	T34	—	349.00
ZHL-2-8	10-1000	27	±1.0	+29	+5	10	+38	2:1	2:1	24	0.60	T34	—	525.00
ZHL-211	800-950	20	±0.4	+29	+15	8	+38	1.8:1	1.8:1	24	0.60	T34	—	295.00
▲ ZHL-2-12	10-1200	24	±1.0	+29*	+10	4*	+38	2:1	2:1	24	0.75	T34	—	625.00
ZHL-3A	0.4-150	24	±1.0	+29.5	+10	11	+38	2:1	2:1	24	0.60	S32	—	229.00
ZHL-32A	0.05-130	25	±1.0	+29	+10	10	+38	2:1	2:1	24	0.60	S32	—	229.00
ZHL-42	700-4200	30	±1.0★	+28	+5	10	+38	2.5:1	2.5:1	15	0.88	U36	—	895.00
ZHL-4240	700-4200	40	±1.5★	+28	-5	8	+38	2.5:1	2.5:1	15	0.90	U36	—	1395.00
ZHL-42W	10-4200	30	±1.5★	+28**	0	8***	+38	2.5:1	2.5:1	15	0.88	U36	—	1095.00
ZHL-4240W	10-4200	40	±1.5★	+28**	-5	8***	+38	2.5:1	2.5:1	15	0.90	U36	—	1495.00

* +28.5 dBm maximum at 1000-1200 MHz

** +27 dBm at 10-700 MHz

*** Below 100 MHz NF increases to 15 dB at 10 MHz

* Below 100 MHz NF increases to 16 dB at 10 MHz

★ Measured at 25°C.

☆ At +25°C, +29 dBm typ. at 90°C case



ZRL

low noise, high IP3

MODEL NO.	FREQ. (MHz) f_L-f_U	GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR Max.		DC POWER		CASE STYLE	CONNECTOR	PRICE \$
		Typ.	Min.	Flatness Typ.	Max.	Output (1 dB Comp.) Min.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V)	Current (A)	
■ ☆ ZHL-450-75	5-450	—	9.3	—	±0.7	+26	+20	3.5♦	+48	2.5:1	1.6:1	12	0.525	S32
■ ☆ ZHL-1010-75	50-1000	—	9.5	—	±0.7	+26	+20	3.5	+47	1.5:1	1.5:1	12	0.525	S32
▲ ☆ ZHL-1010	50-1000	—	9.5	—	±0.6	+26	+22	3.5	46	2:1	2:1	12	0.525	S32
▲ ☆ ZHL-2010	50-1000	—	20	—	±0.8	+26	+11	3.7	46	2:1	2:1	12	0.90	S32
▲ ☆ ZHL-3010	50-1000	—	30	—	±1.0	+26	-3	5.5	46	2.5:1	2:1	12	1.0	S32
NEW ZRL-700	250-700	29	27	±0.5	±1.0	+23.5	+10	2.0	46	1.25	1.3	12	0.550	FJ893
NEW ZRL-1200	650-1200	27.5	25	±0.6	±1.0	+23.5	+10	2.0	46	1.4	1.4	12	0.550	FJ893
NEW ZRL-2300	1400-2300	23.5	21	±0.7	±1.0	+23.0	+10	2.5	46	1.6	1.35	12	0.550	FJ893

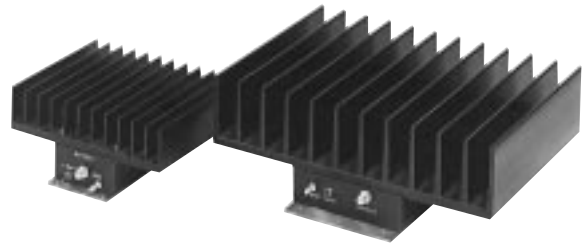
♦ NF gradually increases from 3.5 dB at 50 MHz to 10 dB typ. at 10 MHz

50 & 75Ω

High Power 1 to 1000 MHz



ZHL-WF



ZHL-2W

ZHL-3W
ZHL-5W
ZHL-10W

up to 5W (+37 dBm) output

MODEL NO.	FREQ. (MHz) f_L - f_U	GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR		DC POWER		CASE STYLE	C. CONNECTION	PRICE \$
		Min.	Flatness Max.	Output (1 dB Comp.)	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V)	Current (A)	Note B		
ZHL-03-5WF	60-300	30	±1.0	+36	+10	4	+47	1.4:1	1.5:1	24	2.8	CP641	—	495.00
ZHL-1-2W	5-500	29	±1.0	+33	+10	12	+44	2:1	2:1	24	0.9	T35	—	525.00
ZHL-7-2W	600-800	28	±1.0	+33	+10	12	+43	2:1	2:1	24	0.9	T35	—	590.00 495.00★
ZHL-1000-3W	500-1000	38	±1.0*	+35**	0	9	+45	2:1	2.5:1	24	2.25	DDD338	—	695.00
ZHL-5W-1	1-500	40	±1.5	+37	0	9	+49	2:1	2.5:1	24	3.3	DDD131	—	995.00
ZHL-900-10W	480-900	19	±1.0	+38	+25	10	+50	2:1	2:1	24	5.5	DDD338	—	1995.00

★ WHILE SUPPLIES LAST

* 1.5 dB over temperature range -20 to +65 deg. C.

** +37 dBm typical

NOTES:

- ☆ High IP3, very high IP2, 68-83 dBm typ.
- ✱ Hermetically sealed with field replaceable connectors.
- ▲ Available only with SMA connectors
- Denotes 75 ohm model, for coax connector models 75 ohm BNC connectors are standard.
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case styles & outline drawings".
- C. Prices and specifications subject to change without notice.
- D. For Quality Control Procedures see Table of Contents, Section 0, "Mini-Circuits Guarantees Quality" article. For Environmental Specifications see Amplifier Selection Guide.
- 1. Absolute maximum power, voltage and current rating:
 - 1a. 12V amps, 13 VDC (except ZVE-8G, 18VDC, ZRL models, 17VDC)
 - 1b. 15V amps, 20 VDC
 - 1c. 24V amps, 25 VDC (except ZHL-1A, 24.5 VDC; ZHL-03-5WF & ZHL-7-2W, 28 VDC)
- 2. Open load is not recommended, potentially can cause damage. With no load, derate max input power by 20 dB.

NSN GUIDE MCL NO.

NSN	
6130-01-088-2322	ZHL-1A
5895-01-123-0792	ZHL-1A(BNC)
5895-01-201-4500	ZHL-1A(SMA)
5996-01-400-0753	ZHL-2-12
5895-01-194-1718	ZHL-3A
5895-01-238-7973	ZHL-32A
5895-01-253-2397	ZHL-42(SMA)
5996-01-412-3038	ZHL-1042J
5895-01-263-5871	ZHL-4240
5825-01-339-2539	ZHL-5W-1



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