

# Wideband Amplifier

ZHL-132LM-75+

75Ω 40 to 1300 MHz



Case Style: S860

## The Big Deal

- Ultra low second harmonic, very high output IP2, 75 dBm typ.
- Excellent output IP3, 43 dBm typ.
- Output power at 1 dB compression, +24 dBm typ.
- Very low cost, \$79.95 (qty. 1)

## Product Overview

The ZHL-132LM-75+ is a high-performance, push-pull amplifier featuring very low second- and third-order distortion products across its 40-1300 MHz bandwidth. Designed for a 6V/256 mA typ. power supply, with F connectors in/out, it's a high-value, low-cost solution providing a 14-dB gain for CATV, instrumentation, and many other applications at VHF, UHF, and lower L-band frequencies. The rugged, aluminum alloy case measures 3.75 x 2.0 x 0.80" high.

Feature	Advantages
Ultra low second harmonic, -80 dBc typ. at 5 dBm output	Exceptionally low second order harmonic distortion
Very high output IP2, 85 dBm typ	Very high linearity across full bandwidth
Excellent output IP3, 43 dBm typ	Excellent suppression of unwanted intermods in the presence of multi carriers
Output power 24 dBm typ	Appropriate signal strength for CATV forward path, instrumentation, broadcasting, and GSM/EDGE/CDMA/UMTS/LTE systems at 7-900 MHz.



For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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# Push-Pull Wideband Amplifier

## ZHL-132LM-75+

75Ω      40 to 1300 MHz

### Features

- Ultra low second harmonic, -80 dBc typ. at 5 dBm output
- Very high output IP2, 75 dBm typ.
- Excellent output IP3, 43 dBm typ.
- Output power, 24 dBm.

### Applications

- CATV
- Instrumentation



Case Style: S860

Connectors	Model	Price	Qty.
F-Female	ZHL-132LM-75-F+	\$79.95 ea.	(1-9)

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

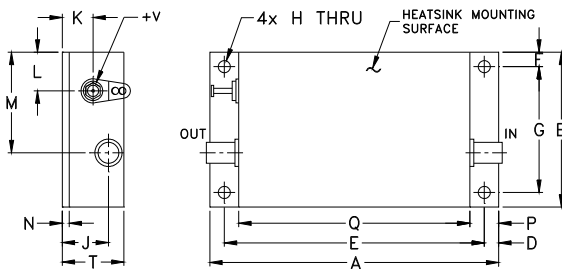
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min	Typ.	Max.	Units
Frequency Range		40		1300	MHz
Gain	40	13.3	16.0	—	dB
	700	13.0	14.4	—	
	1000	12.6	13.9	—	
	1300	11.0	13.0	—	
Output Power at 1dB compression	40	23.0	25.3	—	dBm
	700	22.6	24.5	—	
	1000	22.0	24.1	—	
	1300	22.0	24.5	—	
Output third order intercept point IP3*	40	—	43.2	—	dBm
	700	—	45.5	—	
	1000	—	48.0	—	
	1300	—	42.3	—	
Output second order intercept point IP2*	40	—	80.5	—	dBm
	700	—	71.5	—	
	1000	—	70.4	—	
	1300	—	70.0	—	
Noise Figure	40-1300	—	3.5	5	dB
Input VSWR	40-1300	—	1.3	—	:1
Output VSWR	40-1300	—	1.3	—	:1
DC Supply Voltage	40-1300	—	6.0	6.5	V
Supply Current	40-1300	220	300	360	mA

\*Two tones, spaced 1 MHz apart, 5 dBm/tone at output.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	D	E	F	G	H	J	K	L	M	N	P	Q	T	wt
3.75	2.00	.19	3.375	.19	1.625	.144	.50	.40	.50	1.30	.10	.38	3.00	.80	grams
95.25	50.80	4.83	85.73	4.83	41.28	3.66	12.70	10.16	12.70	33.02	2.54	9.65	76.20	20.32	150.0

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 55°C
Case Temperature	+65°C
Storage Temperature	-55°C to 100°C
DC Voltage	7V
Input RF Power (no damage)	24dBm

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



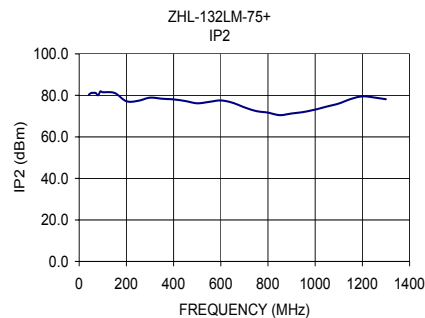
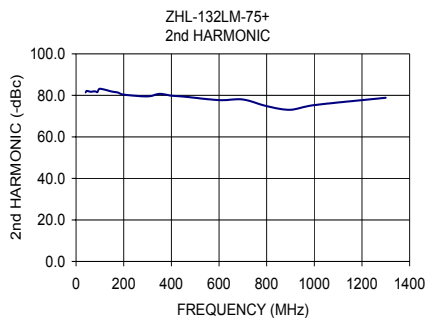
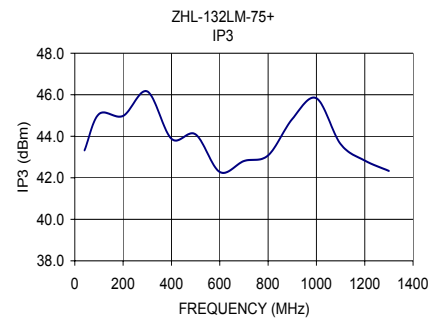
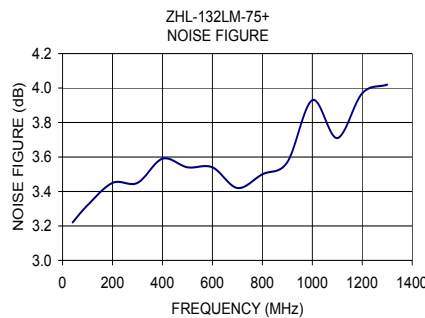
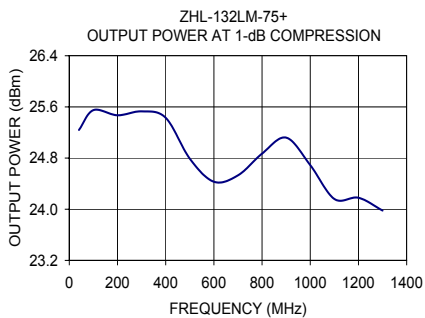
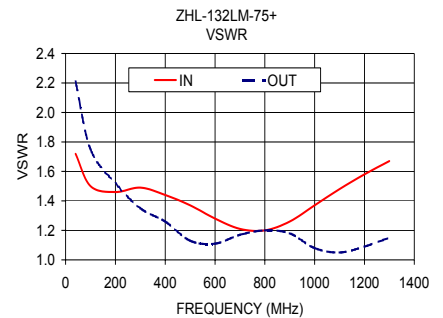
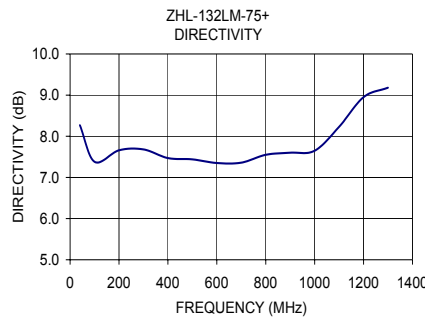
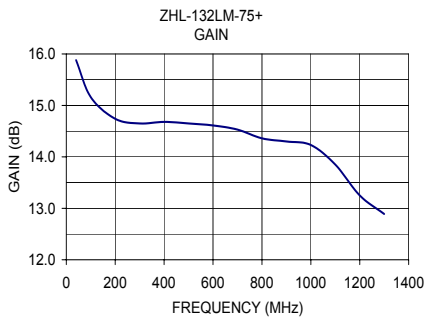
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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1dB COMPR. (dBm)	OUTPUT IP3 (dBm)
	6V	6V	IN	OUT	6V	6V	6V
40.00	15.88	8.27	1.72	2.21	3.22	25.24	43.32
100.00	15.16	7.38	1.50	1.75	3.32	25.55	45.07
200.00	14.74	7.66	1.46	1.52	3.45	25.47	44.98
300.00	14.65	7.68	1.49	1.35	3.45	25.53	46.16
400.00	14.68	7.47	1.44	1.26	3.59	25.43	43.88
500.00	14.65	7.44	1.37	1.13	3.54	24.79	44.09
600.00	14.61	7.35	1.28	1.11	3.54	24.43	42.28
700.00	14.53	7.36	1.21	1.17	3.42	24.53	42.81
800.00	14.36	7.55	1.20	1.20	3.5	24.87	43.08
900.00	14.30	7.60	1.26	1.18	3.57	25.12	44.83
1000.00	14.23	7.65	1.37	1.08	3.93	24.69	45.83
1100.00	13.85	8.23	1.48	1.05	3.71	24.16	43.63
1200.00	13.25	8.95	1.58	1.09	3.97	24.18	42.83
1300.00	12.89	9.18	1.67	1.15	4.02	23.98	42.33



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