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# ZH-2122H

## HIGH POWER AMPLIFIER

### 10 W from 2.1 GHz-2.2 GHz

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This is an excellent high power linear RF amplifier for **2000 MHz** band. It is a perfect solution for **FM TV** excitors, labs or experiments. It has **10 W** RF power with driving input of **25 mW**. Required power supply is **24 V / 4 A**. **Gain is 25 dB**. It comes with N female connectors.



Technical Specifications	
Operating Frequencies:	2100 MHz- 2200 MHz
Operating class:	LINEAR AB
DC Voltage:	24 V
RF power:	10 W MAX.
Input power:	25 mW
Minimum required voltage:	24 V
Maximum DC power:	28 V
Total distortion:	3%
Video Format:	N/A
Current Consumption:	4 A
Gain:	25 dB
Antenna Connector:	N TYPE
Impedance:	50 OHMS
Temperature Range:	-25+70 *C
Dimensions:	6" X 4 " X 2"
Weight:	600 grams

# Electrical Characteristics

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	IDD	—	550	—	mA
Power Gain (f = 2140 MHz)	Gp	23.7	25	—	dB
Gain Flatness (f = 2110 -2220 MHz)	GF	—	0.2	0.6	dB
Power Output @ 1 dB Comp. (f = 2140 MHz)	P1dB	—	41.5	—	dBm
Input VSWR (f = 2110 -2200 MHz)	VSWRin	—	1.5:1	2:1	
Noise Figure (f = 2140 MHz)	NF	—	—	10	dB
Adjacent Channel Power Rejection @ 30 dBm Avg., 3.84 MHz BW, 5 MHz Channel Spacing	ACPR	—	-55	-50	dBc

## TYPICAL CHARACTERISTICS

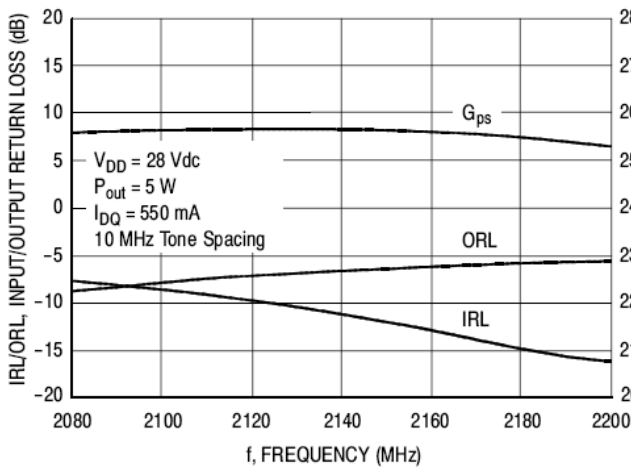


Figure 1. Two-Tone Power Gain, Input Return Loss and Output Return Loss versus Frequency

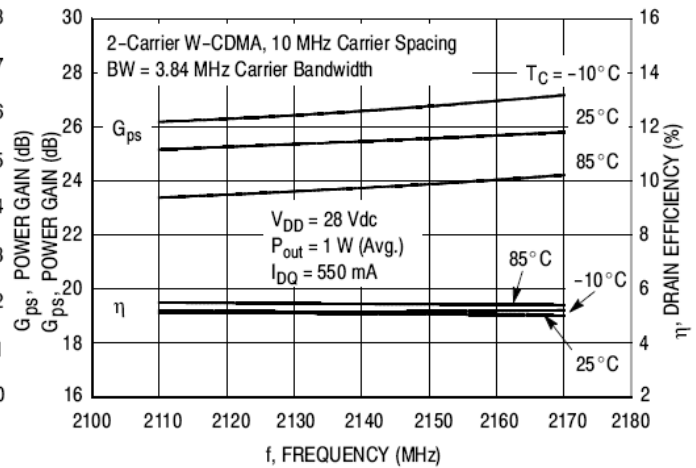


Figure 2. 2-Carrier W-CDMA Power Gain and Efficiency versus Frequency

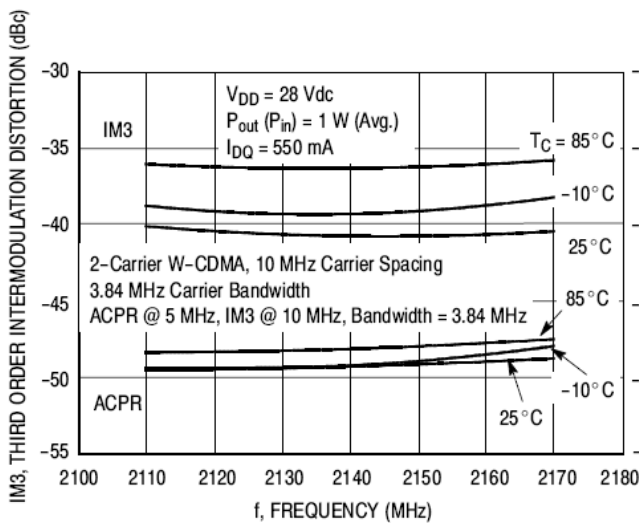


Figure 3. 2-Carrier W-CDMA  $IM_3$  and ACPR versus Frequency

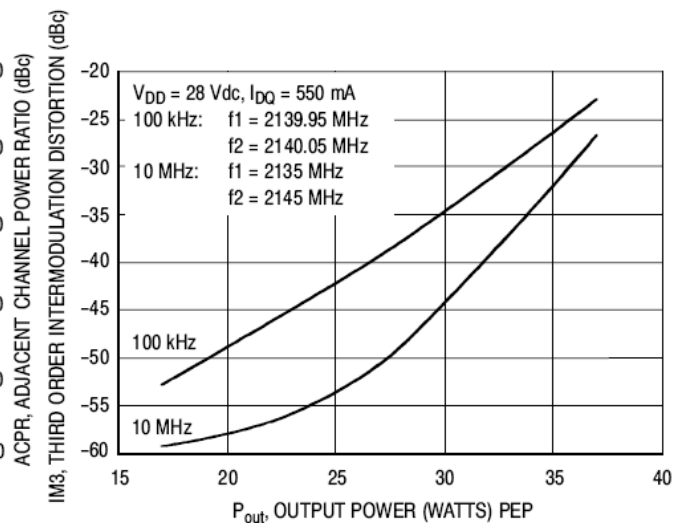


Figure 4. Two-Tone W-CDMA  $IM_3$  versus Output Power

# TYPICAL CHARACTERISTICS

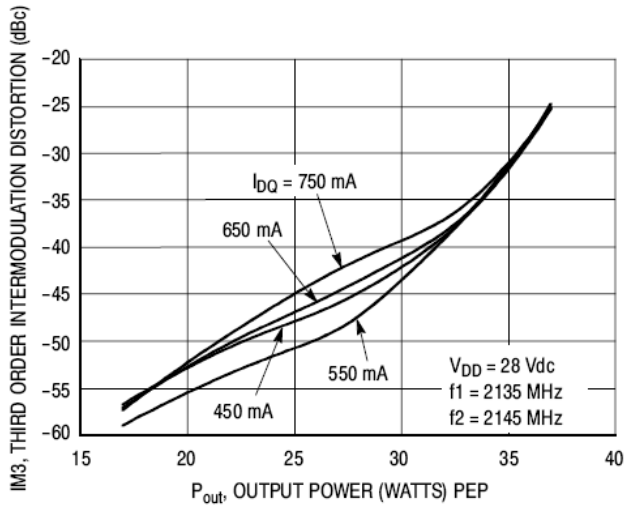


Figure 5. Third Order Intermodulation Distortion versus Output Power

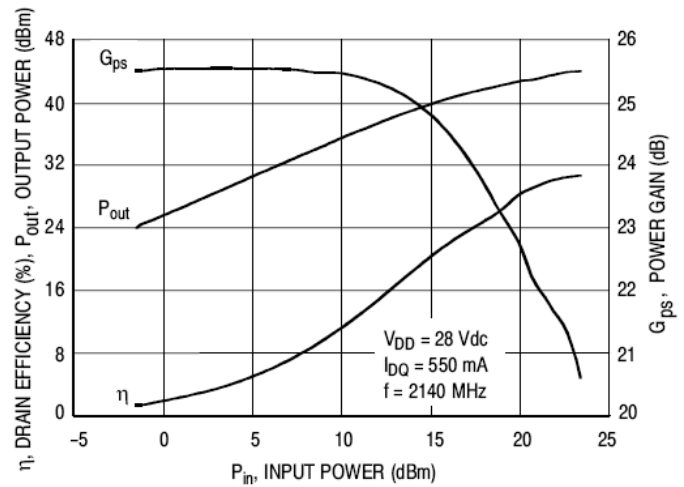


Figure 6. CW Output Power, Efficiency and Gain versus Input Power

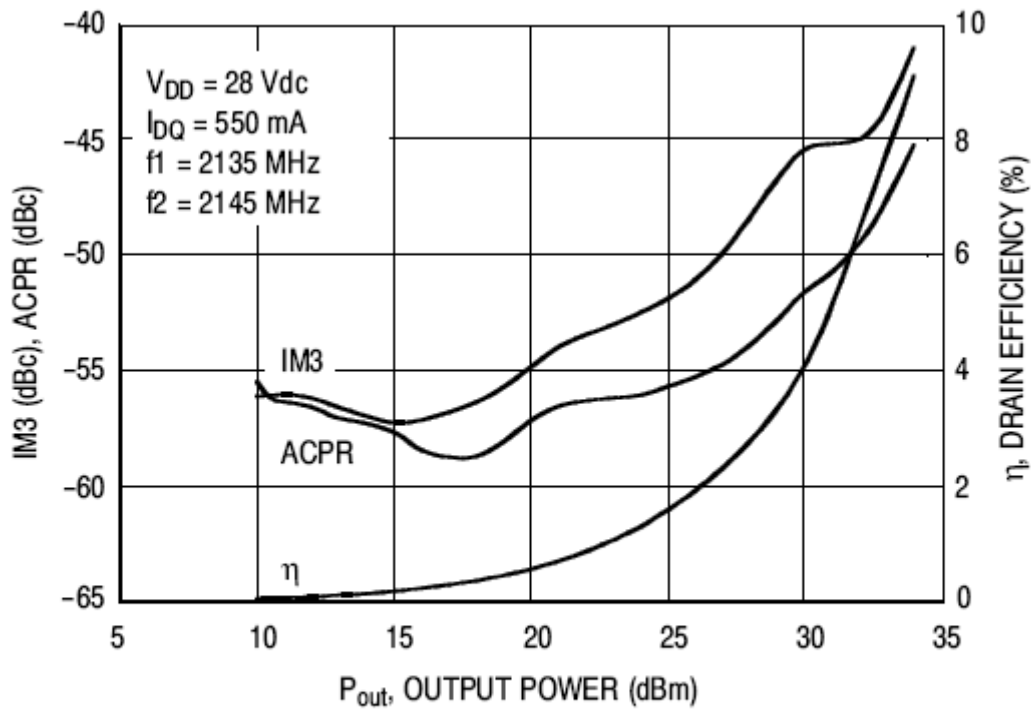


Figure 7. 2-Carrier W-CDMA ACPR, IM3 and Efficiency versus Output Power