

ZH-1000 MIL GRADE HIGH POWER AMPLIFIER

- **5-Watts Minimum Output Power,**
- **10-Watts Maximum from 1 to 2 GHz**
- **5 dB Noise Figure**
- **52 dBm OIP3 Typ**
- **38 dB Small Signal Gain Typ**



ZHM-1000 was designed to be used as a laboratory amplifier for all medium power testing needs from 600 MHz to 2.2 GHz. This single source power amplifier can also be used in any application where medium power and very high gain are required in a rugged environment. This class A unit has an extremely broadband gain and power response.

The useable gain/power frequency percentage bandwidth is 70%. **ZHM-1000** delivers a minimum of 5.0 watts of output power from 0.6 GHz to 2.0 GHz and 10 watts from 1.25 GHz to 1.75 GHz. The small signal gain from 600 MHz to 2.0 GHz is typically greater than 38 dB. The OIP3 at 1.5 GHz with a two-tone spacing of 1 MHz is 53 dBm at a single tone output power of 38.5 dBm. Input and Output VSWR is always < 1.25:1 from 0.6 to 2.0 GHz.

This amplifier operates from a +12 Vdc supply with a quiescent current of 2.2 amps typ. Standard housing size is 6.0 " X 3.0 " X 2.0 "including heat sink.

Mounting is accomplished by 6 through holes in the bottom cover. Input and output short circuit and open circuit protection is standard. Reverse polarity protection is standard. Internal over current protection is standard. SMA female input / output connectors are standard. Unit can be configured with an external shutdown capability if desired.

Parameter	Min	Typ	Max
Small Signal Gain (dB)	37	38	39
Saturated Output Power (Watts)	5	10	12
Input VSWR	1.10:1	1.25:1	1.5:1
Output VSWR	1.10:1	1.25:1	1.5:1
Supply Voltage (Vdc)	10	12	13.5
Quiescent Current (Amps)	2.0	2.5	2.6
OIP3@1.5 GHz at 1 MHz spacing			
@ Pout SCL = 39 dBm (dBm)	50	52	54
Noise Figure (dB)	4	5	6