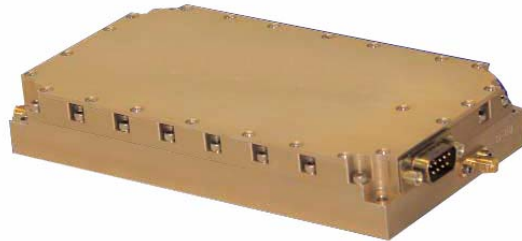


# ZHM 20-1000/100

## MIL GRADE HIGH POWER AMPLIFIER 20 MHz TO 1 GHz 100 W



This amplifier operates from 20 MHz to 1000 MHz, ideal for broadband military platforms as well as commercial applications because it is robust and offers high power over a multi-octave bandwidth. It was designed for broad band jamming and communication systems platforms and its bandwidth can be extended to 1200 MHz+ with similar performance. It is packaged in a modular housing that is approximately 3.4" (width) by 6.4" (long) by 1.0" (height). This amplifier has a typical P3dB of 100 watts at room temperature. Noise figure at room temperature is 10.0 dB typical. It offers a typical gain of 58 dB with a typical gain flatness of  $\pm 2.0$  dB. The power and gain flatness across the band is extremely flat for the bandwidth. Input VSWR is 2.0:1 maximum. Class AB quiescent current is ~2.0 amps typical employing a +28 Vdc supply. This PA operates from a +28 Vdc input voltage. Typical harmonic values can be found on the next page of this data sheet. It operates from -40C to +85C base plate

- Gallium Nitride Broadband Power Amplifier
- Operation from 20 MHz to 1000 MHz min
- Small Signal Gain 58 dB typical
- 40 to 60% Typical Power Added Efficiency
- 100 Watts P3dB typical

Freq (MHz)	Small Signal Gain (dB)	P3dB (dBm)	Current @ P3dB from a 28 Vdc Supply (Amps)	2nd Harmonic @ P1dB (dBc)	3rd Harmonic @ P1dB (dBc)	Power Added Efficiency (%)
20	56.1	49.9	7.5	-13.0	-13.0	46.5
50	56.5	50.1	7.5	-13.0	-25.0	48.7
100	58.3	51.1	8.0	-19.5	-18.0	57.5
200	59.0	51.1	7.5	-20.0	-21.0	61.3
300	59.0	50.6	7.0	-17.0	-24.0	58.5
400	59.5	50.2	6.7	-23.0	-25.0	55.9
500	58.0	49.6	6.9	-22.0	-28.0	47.2
600	56.5	48.8	6.7	-14.0	-34.0	40.4
700	57.3	49.8	8.0	-25.0	-41.0	42.6
800	59.0	48.6	6.8	-29.0	-42.0	38.0
900	57.4	48.7	6.4	-50.0	-47.0	41.3
1000	60.0	49.8	7.2	-40.0	-40.0	47.4