



RFMD's GaN Power ICs (PICs) are wideband power amplifiers designed for continuous wave and pulsed applications such as military communications, electronic warfare, wireless infrastructure, radar, two-way radios, and general purpose amplification. Using an advanced high power density Gallium Nitride (GaN) semiconductor process, these high-performance amplifiers achieve high efficiency, flat gain and power over a large instantaneous bandwidth in a single amplifier design. These GaN discrete amplifiers are 50Ω input-matched packaged in a small form factor 5 x 6mm SOIC-8 outline air cavity ceramic package that provides excellent thermal stability through the use of advanced heat sink and power dissipation technologies. Ease of integration is accomplished through the incorporation of optimized input matching network within the package that provides wideband gain and power performance in a single amplifier. An external output match offers the flexibility of further optimizing power and efficiency for any sub-band within the overall bandwidth.

SPECIFICATIONS

Freq Range (Min) (MHz)	Freq Range (Max) (MHz)	Gain (dB)	OP3dB (dBm)	Power Added Efficiency (%)	V _o (V)	I _b (mA)	Package	Part Number
30	2500	11.0	39.0	40	28	55	AIN SOIC-8	RF3826
50	1000	16.0	41.5	60	28	88	AIN SOIC-8	RFHA1000
30	512	19.0	40.0	70	28	55	AIN SOIC-8	RFHA1003

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FEATURES

- Advanced GaN HEMT technology
- Advanced heat sink technology
- Input internally matched to 50Ω
- High power added efficiency
- -40°C to 85°C operating temperature
- Wide instantaneous bandwidth
- Large signal models available
- EAR99 export control

