

## High Efficiency One, Two, and Four Watt Class B FET Power Amplifiers

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*J.R. Lane, R.G. Freitag, J.E. Degenford and M. Cohn. "High Efficiency One, Two, and Four Watt Class B FET Power Amplifiers." 1986 MTT-S International Microwave Symposium Digest 86.1 (1986 [MWSYM]): 451-454.*

A family of X-band amplifier utilizing the higher efficiency of class B operation has been designed and fabricated. This paper describes the circuitry and performance of 1 watt single-ended, 2 watt push-pull, and 4 watt dual push-pull amplifiers having typical power-added efficiencies of 45%, 40%, and 35%, respectively, in a 1 GHz bandwidth, with associated gains of 5.8 dB, 5.4 dB, and 5.0 dB. Additional data is given for fifteen each of the 1 watt and 2 watt units to show the consistency of their performance.

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