Abstracts

A 4.0 Watt High Efficiency 15-18 GHz Power MMIC (1991 Vol. I [MWSYM])

M. Gat, D.S. Day and J.R. Basset. "A 4.0 Watt High Efficiency 15-18 GHz Power MMIC (1991 Vol. I [MWSYM])." 1991 MTT-S International Microwave Symposium Digest 91.1 (1991 Vol. I [MWSYM]): 327-330.

A two-stage Ku-band monolithic power amplifier is reported. The MMIC incorporates a full interstage matching network and partial input matching network on the chip. The amplifier delivers 4 watts of power, 10 to 13 dB of gain and more than 20% power added efficiency at 2 dB gain compression. This amplifier can be tuned for a 1 GHz instantaneous bandwidth anywhere in the 15-18 GHz band. To the best of our knowledge, the combination of output power, power-added efficiency and gain are the best published results for a power MMIC operating at 18 GHz to date.

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