Abstracts

A 12-GHz, 12-W HJFET Amplifier with 48% Peak Power-Added Efficiency

K. Matsunaga, Y. Okamoto and M. Kuzuhara. "A 12-GHz, 12-W HJFET Amplifier with 48% Peak Power-Added Efficiency." 1995 Microwave and Guided Wave Letters 5.11 (Nov. 1995 [MGWL]): 402-404.

This letter describes a Ku-band power amplifier fabricated with a one-chip 0.45 µm x 16.8 mm GaAs-based heterojunction FET (HJFET), in which a 40.9 dBm (12.3 W) output power with 48% power-added efficiency (PAE) and 10.1 dB linear gain was achieved at 12 GHz. To our knowledge, this is the highest PAE, gain and output power combination achieved by a single FET power amplifier at this frequency.

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