

Abstracts

44-GHz High-Efficiency InP-HEMT MMIC Power Amplifier

W. Lam, M. Matloubian, A. Igawa, C. Chou, A. Kurdoghlian, C. Ngo, L. Jelloian, A. Brown, M. Thompson and L. Larson. "44-GHz High-Efficiency InP-HEMT MMIC Power Amplifier." 1994 *Microwave and Guided Wave Letters* 4.8 (Aug. 1994 [MGWL]): 277-278.

A high-efficiency power amplifier was developed using 0.15- μm gatelength, InP-based (GaInAs/AlInAs/InP), HEMT MMIC technology. The amplifier demonstrated state-of-the-art performance. The output power at 1-dB compression point was 28 dBm at 44.5 GHz. The corresponding power-added efficiency was 31% and gain was 7 dB. The total chip area was 2.5 mm².

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