

Ku-Band Power Amplifier Using Pseudomorphic HEMT Devices for Improved Efficiency

D. Helms, J.J. Komiak, W.F. Kopp, P. Ho, P.M. Smith, R.P. Smith and D. Hogue. "Ku-Band Power Amplifier Using Pseudomorphic HEMT Devices for Improved Efficiency." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 819-821.

A two-stage Ku-band power amplifier demonstrating state-of-the-art power-gain and efficiency has been developed using 0.25 μ m gate-length, 1600 μ m gate-width double-heterojunction pseudomorphic HEMT devices. At 12 GHz, output power of 2.2 and 2.7 watts has been achieved, with power-added efficiency of 39% and 36% respectively. Associated gain of 14 dB has been demonstrated.

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