Abstracts

35 GHz Pseudomorphic HEMT MMIC Power Amplifier (1991 [MCS])

D.W. Ferguson, S.A. Allen, M.Y. Kao, P.M. Smith, P.C. Chao, M.A.G. Upton and J.M. Ballingall. "35 GHz Pseudomorphic HEMT MMIC Power Amplifier (1991 [MCS])." 1991 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 91.1 (1991 [MCS]): 101-104.

0.25µm gate-length double-heterojunction InGaAs Pseudomorphic HEMTs developed at the GE Electronics Laboratory have been integrated into a 3-stage power amplifier MMIC designed for the 34-36 GHz band. This first pass design exhibited a peak small-signal gain of 30 dB, minimum output power of 200 mW with 20 dB associated gain, power-added efficiency of greater than 18% and a return loss of greater than 14 dB over the entire band. This performance was measured with the MMIC operating from a single 6 Volt DC supply.

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