Abstracts

A High Efficiency GaAs MCM Power Amplifier for 1.9 GHz Digital Cordless Telephones

S. Makioka, N. Yoshikawa and K. Kanazawa. "A High Efficiency GaAs MCM Power Amplifier for 1.9 GHz Digital Cordless Telephones." 1996 Transactions on Microwave Theory and Techniques 44.5 (May 1996 [T-MTT]): 717-722.

A GaAs MCM power amplifier has been developed for 1.9-GHz digital cordless telephones. Power-added efficiency of 40.2% and P/sub 1 dB/ of 22.2 dBm have been obtained at drain supply voltage of 3.6 V. Adoption of the multilayer MCM structure, i.e., multilayer microwave integrated circuits (MuMIC), and on-chip ferroelectric capacitors successfully reduced the GaAs total chip area to be 1.1 mm². We consider that the MuMIC is the most effective candidate for high frequency circuits.

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