Abstracts

High efficiency, low adjacent channel leakage 2-V operation GaAs power MESFET amplifier for 1.9-GHz digital cordless phone system

M. Nagaoka, H. Wakimoto, K. Kawakyu, K. Nishihori, Y. Kitaura, T. Sasaki, A. Kameyama and N. Uchitomi. "High efficiency, low adjacent channel leakage 2-V operation GaAs power MESFET amplifier for 1.9-GHz digital cordless phone system." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1323-1326.

A low-voltage GaAs power amplifier for 1.9-GHz digital mobile communication applications such as PHS handsets has been developed, using refractory WNx/W self-aligned gate MESFETs with p-pocket layers. This power amplifier operates with a single low 2-V supply, and an output power of 21.0 dBm, a power gain of 22.3 dB, a low dissipated current of 162.9 mA and a high power-added efficiency of 38.5% were attained with a low 600-kHz adjacent channel leakage power of -58.0 dBc for 1.9-GHz /spl pi//4-shifted QPSK modulated input.

❑ Return to main document.