Abstracts

A true enhancement mode device technology suitable for dual mode dual band power amplifier applications

E. Glass, J. Huang, M. Martinez, W. Peatman, O. Hartin, W. Valentine, M. LaBelle, J. Costa and K. Johnson. "A true enhancement mode device technology suitable for dual mode dual band power amplifier applications." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 135-138.

We have developed a true enhancement mode AlGaAs/InGaAs heterostructure insulated-gate FET technology that combines single supply operation with state-of-the-art linearity and efficiency performance for both digital and analog portable communications. The measured linearity and efficiency performance of this technology rivals or surpasses the results achieved by PHEMT and HBT devices reported to date. For the NADC modulation format at 1800 MHz and VDS=3.6 V, a power-added efficiency of 50% has been achieved at +30.6 dBm output power, -30 dBc adjacent channel power and -49 dBc alternate channel power.

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