

Abstracts

High performance single supply power amplifiers for GSM and DCS applications using true enhancement mode FET technology (2002 [RFIC])

E. Glass, M. Shields and A. Reyes. "High performance single supply power amplifiers for GSM and DCS applications using true enhancement mode FET technology (2002 [RFIC])." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 447-450.

Two high performance single supply power amplifier IC products have been developed for GSM and DCS applications using true enhancement mode FET technology. At $V_D=3.2V$, under CW conditions, the GSM IC supplies +35.5 dBm output power at 58% PAE and the DCS IC supplies +33.5 dBm at 46% PAE. These ICs have low leakage currents similar to HBT and LDMOS and do not require the use of a drain switch. In addition, due to a high threshold voltage ($V_{th}=+0.6V$), they exhibit excellent RF isolation at $V_{ref}=0.1V$ and $P_{in}=+5$ dBm and do not require on-chip attenuators.

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