Abstracts

A SiGe HBT power amplifier with 40% PAE for PCS CDMA applications

Xiangdong Zhang, C. Saycocie, S. Munro and G. Henderson. "A SiGe HBT power amplifier with 40% PAE for PCS CDMA applications." 2000 MTT-S International Microwave Symposium Digest 00.2 (2000 Vol. II [MWSYM]): 857-860.

This paper presents for the first time a high efficiency SiGe HBT based CDMA power amplifier (PA) for PCS handset applications. Under IS-95 CDMA modulation at 1.88 GHz and 3.4 V bias voltage, the two-stage amplifier exhibits 41% power-added efficiency and 30 dBm linear output power with -46 dBc adjacent-channel-power-ratio (ACPR) and 23 dB gain. The SiGe HBTs used in the amplifier were fabricated in a production qualified 8-inch SiGe BiCMOS production process. This performance demonstrates for the first time that SiGe technology can provide competitive performance for PCS wireless handset PA applications.

❑ Return to main document.