Abstracts

Broadband high-efficiency monolithic InGaP/GaAs HBT power amplifiers for 3G handset applications

H. Jager, A. Grebennikov, E. Heaney and R. Weigel. "Broadband high-efficiency monolithic InGaP/GaAs HBT power amplifiers for 3G handset applications." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 1035-1038 vol.2.

In this paper, an approach to high efficiency power amplifier performance over a wide frequency range is discussed. Results for practical implementation of a multiband and multi-mode handset power amplifier are shown. Measurements demonstrate feasibility of the concept for WCDMA, DCS1800 and PCS1900 high-efficient operation. A PAE of better than 38% at 27 dBm output power and an ACLR of -37 dBc in WCDMA operation, as well as greater than 50% PAE at 30 dBm output power in the DCS1800 and PCS1900 band are documented.

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