Abstracts

64% efficiency enhancement-mode power heterojunction FET for 3.5 V Li-ion battery operated personal digital cellular phones

Y. Bito, N. Iwata and M. Tomita. "64% efficiency enhancement-mode power heterojunction FET for 3.5 V Li-ion battery operated personal digital cellular phones." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 439-442.

This paper describes 950 MHz power performance of an enhancement-mode double-doped AlGaAs/InGaAs/AlGaAs heterojunction FET operated at 3.5 V for personal digital cellular phones. The developed 0.5 /spl mu/m gate length FET exhibited an on-resistance of 1.5 /spl Omega/.mm and a threshold voltage of +0.09 V. Under single 3.5 V operation, a 19.2 mm gate width FET exhibited an output power of 1.03 W (30.1 dBm) and a power-added efficiency of 64.0% with an adjacent channel leakage power of -48.7 dBc at 50 kHz off-center frequency.

❑ Return to main document.