Abstracts

Record power added efficiency, low voltage GOI (GaAs On Insulator) MESFET technology for wireless applications

P. Parikh, J. Ibbetson, U. Mishra and J. Pusl. "Record power added efficiency, low voltage GOI (GaAs On Insulator) MESFET technology for wireless applications." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1643-1646.

A record high power added efficiency is obtained from a GaAs On Insulator (GOI) MESFET. Al/sub 2/O/sub 3/ obtained by the wet oxidation of Al/sub 0.98/GaAs in steam, is used as the insulating buffer layer. The insulating buffer results in elimination of buffer leakage and enhanced charge control. 0.35 /spl mu/m gate length GOI MESFETs exhibit a PAE of 72% at a drain voltage of 3 Volts at 4 GHz.

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