Abstracts

Large Signal Modelling of Cryogenically Cooled GaAs Field Effect Transistors for Low Phase Noise Oscillator Design

O. Llopis, J. Verdier, J.M. Dienot, Ph. Andre, R. Plana and J. Graffeuil. "Large Signal Modelling of Cryogenically Cooled GaAs Field Effect Transistors for Low Phase Noise Oscillator Design." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 981-984.

We present an extensive study of microwave FET nonlinear electrical properties at liquid nitrogen temperature. Pulsed measurements, together with low frequency noise measurements and S parameters measurements, have been used to extract a large signal model of a previously selected HEMT device. This model is particularly dedicated to microwave low phase noise cryogenic oscillators design.

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