

Abstracts

Development and verification of a new non-linear MOSFET model (2002 [RFIC])

H. Romdane, E. Bergeault and B. Huyart. "Development and verification of a new non-linear MOSFET model (2002 [RFIC])." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 487-489.

A new non-linear model of Si MOSFET transistor based on a device characterization using DC and small-signal scattering parameter measurements is proposed. It is shown that interpolation of measured data and look up tables provide an extensive description of the extrinsic and intrinsic MOSFET non-linearities. Model verification is achieved by comparing simulations and on-wafer measurements of S parameters at a typical bias point.

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