Abstracts

Reliable extraction of small-signal elements of a generalized distributed FET model

G. Kompa. "Reliable extraction of small-signal elements of a generalized distributed FET model." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. I [MWSYM]): 291-294.

This paper presents a new approach for the reliable determination of the small-signal parameter values of a generalized distributed FET model. For the first time it is shown that unique and physically relevant values for all parameters can be obtained, including the bias-dependent series resistances and the distributed parts of the effective gate-source and drain-source capacitance. The approach has been validated with respect to various FETs with different gate-lengths (0.5 /spl mu/m-0.12 /spl mu/m) in different measurement environment (in-fixture, on-wafer). Exemplary results for a wire-bonded 0.5 /spl mu/m-gate MESFET and a MMIC 0.12 /spl mu/m-gate HEMT are presented and discussed.

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