Abstracts

A simplified procedure to calculate the power gain definitions of FETs

C. Paoloni. "A simplified procedure to calculate the power gain definitions of FETs." 2000 Transactions on Microwave Theory and Techniques 48.3 (Mar. 2000 [T-MTT]): 470-474.

A graphical method to easily derive the power gain definitions of field-effect transistors (FETs) is proposed in this paper. This method is applicable to MESFETs and high electron-mobility transistors described by the typical /spl pi/ model. A new set of simple expressions of the S-parameters, functions of the circuit elements of the FET complete model, is derived. These expressions are presented in graphic form to quickly compute the modules of the FET S-parameters and then the power gains. The accuracy of this approach has been proven by comparison with simulations of the FET complete model.

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