

A Simple Empirical Noise Model of Submicron-Gate GaAs MESFET for CAD Applications

S. Watanabe. "A Simple Empirical Noise Model of Submicron-Gate GaAs MESFET for CAD Applications." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. 1 [MWSYM]): 343-346.

A simple empirical noise model of GaAs MESFETs with submicron gate is presented. From noise parameter measurements on various types of GaAs MESFETs, the intrinsic noise current sources have been found to be represented in simple empirical equations. Hence the noise parameters can be determined only from its small-signal equivalent circuit, and a good agreement is obtained between the model and measurement. The model presented here does not require additional noise measurement, and is suitable especially for microwave CAD applications.

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