Abstracts

Microwave Noise Characterization of GaAs MESFET's: Determination of Extrinsic Noise Parameters

M.S. Gupta and P.T. Greiling. "Microwave Noise Characterization of GaAs MESFET's: Determination of Extrinsic Noise Parameters." 1988 Transactions on Microwave Theory and Techniques 36.4 (Apr. 1988 [T-MTT]): 745-751.

The noise equivalent circuit model for a GaAs MESFET proposed previously is supplemented with a model for device parasitics, in order to calculate the noise parameters of a mounted GaAs MESFET. The calculated parameters are in good agreement with measured noise parameters from 2 to 18 GHz. The model is thus established as a valid representation of the noise properties of the device. The utility of the model lies in the fact that, compared with the measured and tabulated noise parameters, its elements are easier to obtain, and it serves as a simpler, more compact description of the noise characteristics of the MESFET.

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