Abstracts

Fast and accurate extraction of capacitance parameters for the Statz MESFET model

S. Van den Bosch and L. Martens. "Fast and accurate extraction of capacitance parameters for the Statz MESFET model." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part I [T-MTT]): 1247-1249.

A modified approach to S-parameter fitting of measured MESFET data to the Statz's model equations is presented. The technique only requires one sweep of measured S-parameters versus frequency at a single bias point. In addition, there is a reduced need for optimization during the extraction procedure. The additional information in the data-fitting code reduces problems with measurement noise and calibration error. The presented method was developed and tested in HP-ICCAP, a software tool for parameter extraction. All measurements are controlled by this software.

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