Abstracts

Simplified nonquasi-static FET modelling approach experimentally validated up to 118.5 GHz

M. Fernandez-Barciela, P.J. Tasker, M. Demmler, Y. Campos-Roca, H. Messler, E. Sanchez, C. Curras-Francos and M. Schlechtweg. "Simplified nonquasi-static FET modelling approach experimentally validated up to 118.5 GHz." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1499-1502.

In this paper two similar simplified nonquasi-static approaches are applied for high-frequency large-signal FET prediction. Both account for low-frequency dispersion and use a simplified extraction process through the use of linear delays. Excellent results are obtained from dc up to the device f/sub T/ frequencies, even when f/sub T/ is 120 GHz. For low-frequency prediction a simple quasi-static extrinsic approach can produce excellent results thus further simplifying modelling. The influence of including the low-frequency dispersion modelling is also taken into account.

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