Abstracts

An Approach to Distributed Amplifier Based on a Design-Oriented FET Model

C. Paoloni and S. D'Agostino. "An Approach to Distributed Amplifier Based on a Design-Oriented FET Model." 1995 Transactions on Microwave Theory and Techniques 43.2 (Feb. 1995 [T-MTT]): 272-277.

A Design-Oriented FET model in conjunction with an appropriate design procedure for distributed amplifiers is presented. The advantage of including the effects caused by FET parasitic in a newly defined simple unilateral FET circuit to be utilized in the conventional distributed amplifier design procedure allows an accurate prediction of the low-frequency gain and the 3-dB cutoff frequency. The simplicity of this formulation and a set of generalized design charts provide an interesting opportunity to designers. Comparisons among different experimental data from literature and the results obtained by this theory confirm the validity of the Design-Oriented FET model and the effectiveness of the given graphical design method.

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