Abstracts

Parallel Processing Application to Non-Linear Microwave Network Design (1989 Vol. II [MWSYM])

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One of the objectives of this paper is to introduce microwave network designers to an important new development in computer-aided design techniques. The paper describes how parallel processing is applied to the CAD of non-linear microwave circuits. The advantage of parallel processing is the significant reduction in computational time such that optimisation becomes feasible even on a desk-top computer. The developed programs run on an AT desk-top with a transputer board capable of concurrent processing speeds of over 40 MIPS. A new representation of microwave and non-linear circuits has been developed to suit the required parallelism. Applications to the analysis of non-linear amplifiers, frequency multipliers and microwave mixers are described.

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