

Abstracts

Computer-Aided Design of Parametric Amplifiers (Dec. 1971 [T-MTT])

M. Maeda and A. Sumioka. "Computer-Aided Design of Parametric Amplifiers (Dec. 1971 [T-MTT])." 1971 Transactions on Microwave Theory and Techniques 19.12 (Dec. 1971 [T-MTT] (1971 Symposium Issue)): 916-921.

A computer-aided design approach is developed for the analysis and design of single-tuned parametric amplifiers. The voltage gain-bandwidth product (\sqrt{GB}) is used as a maximizing objective function for the optimum design. An 18-GHz single-tuned amplifier using a single-packaged varactor diode is designed as an illustration. The experimental amplifier exhibited a large \sqrt{GB} of 2400 MHz and a low noise temperature of 180°K at room temperature ambient.

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