

Abstracts

Gain-Bandwidth Limitations of Microwave Transistor Amplifiers

R.S. Tucker. "Gain-Bandwidth Limitations of Microwave Transistor Amplifiers." 1973 Transactions on Microwave Theory and Techniques 21.5 (May 1973 [T-MTT]): 322-327.

Gain-bandwidth limitations of broad-band single-stage microwave transistor amplifiers are related to a simple transistor circuit model, to constraints on characteristic impedance in a distributed-element equalizer, and to the line lengths of this equalizer. The gain-bandwidth performance of commensurate distributed-element equalizers is compared with the performance of a lumped-element equalizer, and four distributed-element design examples are presented, including two commensurate equalizers and two computer-optimized networks.

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