

Abstracts

Gain-Bandwidth Properties of a Class of Matched Feedback Amplifiers

D.J. Ahlgren and W.H. Ku. "Gain-Bandwidth Properties of a Class of Matched Feedback Amplifiers." 1987 Transactions on Microwave Theory and Techniques 35.4 (Apr. 1987 [T-MTT]): 361-369.

This paper considers the analysis and synthesis of small-signal feedback amplifiers which use shunt feedback around a generic gain block. The analysis presented leads to estimates of all network element values and predicts the closed-loop broad-band gain, bandwidth and quality of match at both ports. The tradeoff of gain for quality of match is made evident by a graphical technique. The paper also describes, a synthesis method and two illustrative design examples.

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