Abstracts

The Traveling Wave Matching Technique for Cascadable MMIC Amplifiers (Short Papers)

B.J. Minnis. "The Traveling Wave Matching Technique for Cascadable MMIC Amplifiers (Short Papers)." 1994 Transactions on Microwave Theory and Techniques 42.4 (Apr. 1994, Part I [T-MTT]): 690-692.

The paper describes a new design approach for cascadable MMIC amplifiers. It allows extremely compact gain stages to be designed which resemble single FET distributed amplifiers with reactive output matching networks. Such gain stages with their flat gain & good terminal match properties, are essential to the success of high gain, multi-stage MMIC amplifiers on a single chip. This short paper presents the first principles of the new approach. As a simple example, the paper also describes a single stage amplifier employing an 800 µm FET delivering 6 dB gain over 7-14 GHz and occupying < 1 mm/sub 2/ of GaAs.

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