Abstracts

Computer Aided Design of Wide-Band Integrated Microwave Transistor Amplifiers on High Dielectric Substrates

V.G. Gelnovatch and T.F. Burke. "Computer Aided Design of Wide-Band Integrated Microwave Transistor Amplifiers on High Dielectric Substrates." 1968 Transactions on Microwave Theory and Techniques 16.7 (Jul. 1968 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 429-439.

The problem of wide bandwidth and flat in-band gain response for microwave transistor amplifiers has been reduced to the optimization of a number of important variables from computer prepared design charts. Through the general flexibility of the computer-generated data, a large variety of amplifier responses are possible using distributed circuit matching networks. As experimental verification of the overall design procedure, single-stage and two-stage octave wide transistor amplifiers were fabricated on 1inch by 1inch and 1inch by ½ inch 20 mil thick alumina, respectively. The experimental data gained from these units showed excellent correlation with the computer predicted response.

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