Abstracts

Improvement of a Class-C Transistor Power Amplifier by Second-Harmonic Tuning

S.R. Mazumder, A. Azizi and F.E. Gardiol. "Improvement of a Class-C Transistor Power Amplifier by Second-Harmonic Tuning." 1979 Transactions on Microwave Theory and Techniques 27.5 (May 1979 [T-MTT] (Special Issue on Solid-State Microwave/Millimeter-Wave Power Generation, Amplification, and Control)): 430-433.

Considerations for the effects of second-harmonic reactive terminations on the performances of a UHF class-C transistor power amplifier are presented. An experimental amplifier circuit design using coupled-TEM-bar transmission lines is described. This circuit can vary the fundamental and the second-harmonic impedance terminations of the amplifier independently. With this amplifier circuit, significant improvement in the performance characteristics of a class-C power amplifier were achieved by presenting proper values of second-harmonic reactive terminations, both at the input and the output of the transistor.

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