Abstracts

Simple design equations for broadband class E power amplifiers with reactance compensation

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In this paper, a simple analytical design approach to determine the parameters of the loading networks to design broadband class E amplifiers is presented. The design equations are given for each element of single and double resonant loading circuits. The analysis and simulation were performed on the example of high-voltage LDMOSFET power amplifier, which show that in octave-band of 100-200 MHz the power gain of 10 dB with deviation of only /spl plusmn/0.5 dB and the drain efficiency of about 70% and higher can be achieved.

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