

Abstracts

An Analytic Approach to Optimum Oscillator Design Using S-Parameters

R.J. Gilmore and F.J. Rosenbaum. "An Analytic Approach to Optimum Oscillator Design Using S-Parameters." 1983 Transactions on Microwave Theory and Techniques 31.8 (Aug. 1983 [T-MTT]): 633-639.

An analytic approach to the design of microwave FET oscillators for maximum power output into a given load is presented. By the use of FET S-parameters, characterized as a function of incident input powers, design information can be obtained for any standard topology. By means of this technique, an experimental 5.3-GHz oscillator has been demonstrated which delivers 245 mW at 35-percent efficiency into a 50-Ohm load.

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