Abstracts

Dynamic Behavior of Nonlinear Power Amplifiers in Stable and Injection-Locked Modes

Y. Takayama. "Dynamic Behavior of Nonlinear Power Amplifiers in Stable and Injection-Locked Modes." 1972 Transactions on Microwave Theory and Techniques 20.9 (Sep. 1972 [T-MTT]): 591-595.

Dynamic equations of reflection-type nonlinear power amplifiers in both stable and injection-locked modes are derived for modulated signals. The steady-state response and the transient response of an injection-locked negative-resistance diode ampfitier is evaluated. The response for an FM signal is discussed. Numerical results show that the dynamic behavior as well as the steady-state behavior is affected by nonlinearity of the diode conductance and susceptance.

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