

Abstracts

Linearity Improvement of Microwave FM Oscillators by Harmonic Tuning

G.G. Endersz. "Linearity Improvement of Microwave FM Oscillators by Harmonic Tuning." 1975 *Transactions on Microwave Theory and Techniques* 23.4 (Apr. 1975 [T-MTT] (Special Issue on Microwave Communications)): 360-367.

A new linearizing method for microwave communication FM oscillators is presented. As a linearizing mechanism the frequency perturbation caused by tuned harmonic(s) is utilized. Analytical formulation of linearity requirements for the general case are given and explicit relations are delivered for the second harmonic-tuned FM oscillator. Linearity and noise loading results are shown, obtained with an experimental 250-mW X band Gunn diode FM oscillator and satisfying CCIR linearity and noise loading requirements for broad-band microwave radio links.

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