Abstracts

Nonlinear Model of Superconducting Strip Transmission Lines

The Ginzburg-Landau theory is used to predict the nonlinear behavior in superconducting strip transmission lines. A method for calculating the nonlinear inductance and the fractional change in the resonant frequency of a stripline resonator is presented. Comparisons with measurements for two YBa/sub 2/Cu/sub 3/O/sub 7-x/ stripline resonators show excellent agreement.

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