

Abstracts

Nonlinear Model of Superconducting Strip Transmission Lines

C.W. Lam, D.M. Sheen, S.M. Ali and D.E. Oates. "Nonlinear Model of Superconducting Strip Transmission Lines." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 197-199.

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 $\text{YBa}_{2}\text{Cu}_{3}\text{O}_{7-x}$ stripline resonators show excellent agreement.

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