

Abstracts

Inductance extraction of multilayer finite-thickness superconductor circuits

M.M. Khapaev. "Inductance extraction of multilayer finite-thickness superconductor circuits." 2001 Transactions on Microwave Theory and Techniques 49.1 (Jan. 2001 [T-MTT] (Mini-Special Issue on 2000 Radio-Frequency Integrated Circuits (RFIC) Conference and Automatic Radio Frequency Techniques Group (ARFTG) Meeting)): 217-220.

In this paper, an efficient numerical technique is presented for inductance extraction and current calculation in multilayer planar superconductor microelectronic circuits. The rigorous definition of a three-dimensional problem based on London equations and stream function is presented. The finite thickness of conductors is taken into account. The results can be directly applied to perfect and extended to normal conductors.

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