Abstracts

Characteristic analysis of coupled HTS interconnects with two-dimensional FDTD

Jun-Fa Mao, Xiaoning Qian and Zhengyu Yuan. "Characteristic analysis of coupled HTS interconnects with two-dimensional FDTD." 2001 Microwave and Wireless Components Letters 11.1 (Jan. 2001 [MWCL]): 33-35.

In this work, the frequency-dependent RLGC parameters of high-speed coupled high T/sub c/ superconductor (HTS) interconnects are extracted with a two-dimensional (2-D) FDTD algorithm. The response signals of an HTS interconnect circuit and a normal Al interconnect circuit are simulated and compared, showing that not only the signal dispersion, delay, and magnitude decay of HTS interconnects are smaller than that of Al interconnects, the crosstalk of HTS interconnects is much smaller, too.

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