Abstracts

The Electric-Field Problem of an Interdigital Transducer in a Multilayered Structure

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A computational technique for the determination of the potential distribution of an interdigital transducer in a layered nonpiezoelectric environment is presented. Firstly, the problem is reduced to a dual boundary value problem for the potential distribution and the jump in the current density in the place of the interdigital transducer. Secondly, an iteration scheme to solve this dual boundary value problem is outlined. It is based upon an iterative minimization of the integrated square error made in the boundary conditions on the transducer fingers. Finally, numerical results for some representative configurations are presented.

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