Abstracts

Accurate Computation of the Electrostatic Charge Distribution on Shielding Plates of SAW-Transducers

A.F. Molisch and F.J. Seifert. "Accurate Computation of the Electrostatic Charge Distribution on Shielding Plates of SAW-Transducers." 1994 Transactions on Microwave Theory and Techniques 42.8 (Aug. 1994 [T-MTT]): 1494-1498.

We compute the electrostatic charge distribution on the shielding plates of a packaged SAW-interdigital transducer (IDT) by the Method-of-Moments (MoM) and compare it to exact results; the shielding plates, which are used to suppress electric feedthrough, are placed on the substrate at the sides of the IDT. Correct modeling of their edge singularities is shown to be crucial for the accuracy of the MoM computations. The minimal length of the plates necessary for adequate shielding behavior is analyzed.

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