Abstracts

Efficient analysis of microstrip lines including edge singularities in spatial domains

Jong-Sung Kim and Wee Sang Park. "Efficient analysis of microstrip lines including edge singularities in spatial domains." 2001 Microwave and Wireless Components Letters 11.6 (Jun. 2001 [MWCL]): 270-272.

Microstrip lines are analyzed by considering edge-singular behavior using closed-form Green's functions in a spatial domain. A Maxwell function which incorporates the appropriate edge conditions of the line is introduced for the derivations of a transverse correlation function. From calculations of excess lengths of an open-end discontinuity, the results of the proposed method using the edge conditions are in better agreement with the quasistatic results than those of transverse uniform current variations for conductor strips with relatively wider width.

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