Abstracts

Electrostatic potential due to a potential drop across a slit

Y.C. Noh and H.J. Eom. "Electrostatic potential due to a potential drop across a slit." 1998 Transactions on Microwave Theory and Techniques 46.4 (Apr. 1998 [T-MTT]): 428-430.

The electrostatic potential and charge density due to a potential drop across a slit in a thick conducting plane are obtained in analytic closed form. The Fourier transform, mode matching, and superposition are used to represent the potential in the spectral domain. The residue calculus is applied to represent the potential distribution in converging series form. Numerical computations are performed to illustrate the charge-density distribution through a slit.

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