Abstracts

TM-Scattering from a Slit in a Thick Conducting Screen: Revisited (Short Papers)

S.H. Kang, H.J. Eom and T.J. Park. "TM-Scattering from a Slit in a Thick Conducting Screen: Revisited (Short Papers)." 1993 Transactions on Microwave Theory and Techniques 41.5 (May 1993 [T-MTT]): 895-899.

TM plane-wave scattering from a slit in a thick conducting screen is reexamined. A Fourier transform technique is employed to express the scattered field in the spectral domain, and the boundary conditions are enforced to obtain simultaneous equations for the transmitted field inside the thick conducting screen. The simultaneous equations are solved to represent the transmitted and scattered fields in series forms. Approximate series solutions for scattering and transmission are obtained in closed-forms which are valid for high-frequency scattering regime.

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