

Abstracts

Dual-Series Solution to Scattering from a Semicircular Channel in a Ground Plane

M.K. Hinders and A.D. Yaghjian. "Dual-Series Solution to Scattering from a Semicircular Channel in a Ground Plane." 1991 Microwave and Guided Wave Letters 1.9 (Sep. 1991 [MGWL]): 239-242.

Exact dual-series eigenfunction solutions, and simple closed-form low-frequency asymptotic approximations are determined for the problems of TM and TE scattering from a semicircular channel in a perfectly conducting ground plane. The eigenfunction solutions provide benchmarks for channel scattering, and the low-frequency solutions can be used to determine directly incremental length diffraction coefficients for narrow channels.

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