

Diffraction on the eigenwaves on an inclined medium interface in the waveguides with metallic bounds

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Abstract

© 2002 IEEE. The electromagnetic wave diffraction problems on an inclined medium interface with a metallic plate and without it in the plane waveguide and in the rectangular waveguide are considered. It is shown that these problems can be reduced to boundary value problems for the Helmholtz equation or for the Maxwell system in a bounded rectangular domain.

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Keywords

Boundary conditions, Boundary value problems, Electromagnetic diffraction, Electromagnetic scattering, Electromagnetic waveguides, H infinity control, Maxwell equations, Planar waveguides, Rectangular waveguides, Waveguide components