Abstracts

Dynamic Interaction Fields in a Two-Dimensional Lattice

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In the theory of artificial dielectrics and aperture coupling in rectangular waveguides, a knowledge of the dynamic interaction fields is required in order to evaluate the polarizing fields. This paper presents suitable methods for evaluating the dynamic interaction fields in a two-dimensional lattice. Both electric and magnetic dipoles are considered. The results are presented in closed form apart from correction terms involving rapidly converging series. Cross-polarization interaction constants are also evaluated.

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