Abstracts

Numerical Study of the Current Distribution on a Post in a Rectangular Waveguide (Short Papers)

A recently developed, rapidly converging moment solution for electromagnetic scattering by a single inductive post in a rectangular waveguide is extended to include the current induced on the past surface. The results are represented by a Fourier series and the first few terms are compared with available data. The excellent agreement demonstrates that this approach can yield an accurate solution. This rather simple procedure is even more attractive when other waveguide obstacles such as thick irises and posts of arbitrary shape, which require, in general, more than just a few Fourier terms for their current representation, are encountered.

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