

Abstracts

Inductive Posts and Diaphragms of Arbitrary Shape and Number in a Rectangular Waveguide

H. Auda and R.F. Harrington. "Inductive Posts and Diaphragms of Arbitrary Shape and Number in a Rectangular Waveguide." 1984 Transactions on Microwave Theory and Techniques 32.6 (Jun. 1984 [T-MTT]): 606-613.

Consider a finite number of posts and/or diaphragms located close to each other in a rectangular waveguide. These are assumed to be perfectly conducting, of arbitrary shape, and uniform in the direction parallel to the narrow side of the waveguide, i.e., of the inductive type. The solution of the problem involves determining the network describing the effect of the posts and diaphragms on the waveguide dominant mode. A moment procedure is devised and applied to a set of test problems. The simplicity and generality of the procedure, together with its excellent performance, as indicated by the results obtained, clearly shows that it is a powerful tool worth using.

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