

Abstracts

An Ordered Array of Terminated Metallic Posts as an Embedding Network for Lumped Microwave Devices

R.J. Gutmann and K.E. Mortenson. "An Ordered Array of Terminated Metallic Posts as an Embedding Network for Lumped Microwave Devices." 1972 Transactions on Microwave Theory and Techniques 20.3 (Mar. 1972 [T-MTT]): 215-223.

An ordered array of metallic posts is proposed as an embedding network for lumped devices at microwave frequencies. The individual metallic posts, terminated in a lumped device, extend across a parallel-plane transmission line excited by the TEM mode. In the analysis the impedance discontinuity for an individual terminated metallic post in a transmission line bounded on two sides by electric walls and two sides by magnetic walls is evaluated. Design concepts useful in employing these results with a two-dimensional array of metallic posts terminated with semiconductor devices are described.

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