Abstracts

A Dynamic Analysis of Non-Uniform Microstrip Multi-Conductor Transmission Lines Using the Grounded Slab Green's Functions Approach

T.R. Arabi, A.T. Murphy, T.K. Sarkar and R.F. Harrington. "A Dynamic Analysis of Non-Uniform Microstrip Multi-Conductor Transmission Lines Using the Grounded Slab Green's Functions Approach." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 1111-1114.

The objective of this paper is to present a numerical technique based on a combined approach of using a "quasi-dynamic", a "dynamic" and an asymptotic approach for the analysis of non-uniform rnicrostrip transmission lines and discontinuities using the grounded dielectric slab Green's Functions. The regions of validity of several quasi-dynamic and asymptotic approximations have been compared and determined in terms of the required accuracy and the microstrip physical parameters. Finally, numerical examples have been solved and checked with available and data and measurement in order to check the accuracy of this new technique.

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