

Abstracts

Quick Computation of [C], [L], [G], and [R] Matrices of Multiconductor and Multilayered Transmission Systems (Short Papers)

G. Plaza, F. Mesa and M. Horno. "Quick Computation of [C], [L], [G], and [R] Matrices of Multiconductor and Multilayered Transmission Systems (Short Papers)." 1995 Transactions on Microwave Theory and Techniques 43.7 (Jul. 1995, Part I [T-MTT]): 1623-1626.

This paper presents a general scheme to compute the four characteristic matrices, [C], [G], [L] and [R], of a multilayered and multiconductor transmission line with arbitrary cross section conductors under quasi-TEM approach and strong skin effect regime. The conductors are modeled as a set of infinitesimally thin strips following the M-strip model. An spectral domain approach (SDA) has been employed, paying special attention to the efficient computation of the spectral tails. Conductor losses are considered via the incremental inductance rule extended to the multiconductor case.

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