

Abstracts

The Method of Series Expansion in the Frequency Domain Applied to Multidielectric Transmission Lines (Short Papers)

A.F. dos Santos and J.P. Figanier. "The Method of Series Expansion in the Frequency Domain Applied to Multidielectric Transmission Lines (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.9 (Sep. 1975 [T-MTT]): 753-756.

In this short paper a method of expanding the phase constant and the field of a multidielectric transmission line as a power series of the frequency is developed. The method provides a theoretical justification for the widely used "static" approximations and indicates the reason why their accuracy is frequently good. This expansion may also be useful for estimating an upper limit to the frequency band in which the dispersion does not exceed a specified value. A numerical example is included.

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