

Abstracts

Optimization and Sensitivity Analysis of Multiconductor Transmission Line Networks

T. Rahal-Arabi, R. Suarez-Gartner and R. Pomerleau. "Optimization and Sensitivity Analysis of Multiconductor Transmission Line Networks." 1994 Transactions on Microwave Theory and Techniques 42.9 (Sep. 1994, Part II [T-MTT]): 1827-1836.

This paper describes a numerical approach and a design methodology of using a frequency domain technique for the optimization and sensitivity analysis of high speed multi-conductor transmission line systems. To demonstrate the usefulness of this technique, the numerical frequency domain results have been validated by time domain simulations. The technique has also been used to demonstrate the superiority of closed loop topologies in terms of their electrical performance. Such topologies were thought to be troublesome and were generally avoided in most of the electronics industry.

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