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Description

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4.2 Solution of the Lossy Transmission Line Equations in the Laplace Domain4.3 The Propagation Along a Lossy Transmission Line; 4.4 Semi-infinite Lossy Line Connected to an Ideal Current Source; 4.5 Representation of Lossy Two-Conductor Lines as Two-Ports; 4.6 The Input-State-Output Description; 4.7 Input-Output Descriptions in Explicit Form; 4.8 A Lossy Transmission Line Connecting Two Linear Resistive One-Ports; 4.9 The Matching Problem for Lossy Lines; 4.10 Lossy Transmission Lines with Distributed Sources

4.11 Characterization of the Terminal Behavior of the Line Through the Scattering Parameters

Sommario/riassunto

The theory of transmission lines is a classical topic of electrical engineering. Recently this topic has received renewed attention and has been a focus of considerable research. This is because the transmisson line theory has found new and important applications in the area of high-speed VLSI interconnects, while it has retained its significance in the area of power transmission. In many applications, transmission lines are connected to nonlinear circuits. For instance, interconnects of high-speed VLSI chips can be modelled as transmission lines loaded with nonlinear elements. These nonl