Abstracts

Propagation characteristics of a heaviside absorbing layer for TLM

I.G. Gosling and Pingyu Qu. "Propagation characteristics of a heaviside absorbing layer for TLM." 1997 Transactions on Microwave Theory and Techniques 45.2 (Feb. 1997 [T-MTT]): 268-273.

The perfectly matched layer for use with the finite-difference time-domain method is adapted to our transmission-line matrix simulation as what we call a heaviside absorbing layer (HAL). It is shown that the reflection coefficient for the wave incident on a HAL is less than that of the wave incident on a matched-load termination at all angles of incidence. Furthermore, the dispersion relation of a transmission-line matrix mesh of a symmetrical condensed node with both electric and magnetic loss stubs is derived. It provides guidance on how to choose the losses of HAL and other simulation parameters properly.

❑ Return to main document.