# Abstracts

## Transients on Lossless Exponential Transmission Lines Using Allen's Method

*P. Bouchard, R.R.J. Gagne and J.-L. Lavoie. "Transients on Lossless Exponential Transmission Lines Using Allen's Method." 1993 Transactions on Microwave Theory and Techniques 41.6 (Jun./Jul. 1993 [T-MTT] ): 1178-1182.*

The exact analytical expressions of the time-domain step response matrix for the lossless exponential transmission line are developed, therefore extending the range of problems where Allen's method can be applied for the transient analysis of networks consisting of interconnections of linear distributed elements, lumped linear and/or nonlinear elements, and arbitrary sources. An indication as to the correctness of the expressions is obtained by comparing them to published results, which also helps to gain a better physical insight into the step response matrix. Moreover, the response to a step input and also the transient response to a sudden sinusoidal excitation are presented.

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