# Abstracts

## Useful Matrix Chain Parameter Identities for the Analysis of Multiconductor Transmission Lines (Short Papers)

*C.R. Paul. "Useful Matrix Chain Parameter Identities for the Analysis of Multiconductor Transmission Lines (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.9 (Sep. 1975 [T-MTT]): 756-760.*

By utilizing state variable theory, certain useful matrix identities involving submatrices of the chain parameter matrix for a multiconductor transmission line are shown. These identities are extensions of familiar properties associated with two-conductor lines to multiconductor lines and are used to formulate the complete solution for the terminal currents when the line is terminated by linear networks. The identities allow a simplified solution for these currents and reduce numerous redundant time-consuming matrix multiplications. In addition, the correspondence between familiar terms for the two-conductor case and the multiconductor case is shown.

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