Abstracts

Conversions Between S, Z, Y, h, ABCD, and T Parameters Which are Valid for Complex Source and Load Impedances (Comments)

R.B. Marks and D.F. Williams. "Conversions Between S, Z, Y, h, ABCD, and T Parameters Which are Valid for Complex Source and Load Impedances (Comments)." 1995 Transactions on Microwave Theory and Techniques 43.4 (Apr. 1995, Part I [T-MTT]): 914-915.

In his recent paper, Frickey presents formulas for conversions between various network matrices. Four of these matrices (Z, Y, h, and ABCD) relate voltages and currents at the ports; the other two (S and T) relate wave quantities. These relationships depend on the definitions of the waves themselves in terms of voltage and current. Frickey's results are based on an unconventional definition of the waves, whose resulting properties are unfamiliar to most microwave engineers. As a result, application of his formulas can easily lead to catastrophic errors.

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