

## Realizable Limits of Error for Dissipationless Attenuators in Mismatched Systems

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*D.C. Youla and P.M. Paterno. "Realizable Limits of Error for Dissipationless Attenuators in Mismatched Systems." 1964 Transactions on Microwave Theory and Techniques 12.3 (May 1964 [T-MTT]): 289-299.*

A tutorial exposition for the exact physical error limits due to mismatch for dissipationless attenuators is presented. The results given yield smaller errors than previous existing formulas due to the inclusion of the physical realizability constraint of passivity. Graphs are included for rapidly determining the largest error for a prescribed set of conditions. This work is based on an analysis prepared by D. C. Youla which had a limited circulation.

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