

Abstracts

Mismatch Errors in Cascade-Connected Variable Attenuators

G.E. Schafer and A.Y. Rumfelt. "Mismatch Errors in Cascade-Connected Variable Attenuators." 1959 Transactions on Microwave Theory and Techniques 7.4 (Oct. 1959 [T-MTT]): 447-453.

The treatment of mismatch errors is extended to cover variable attenuators cascade-connected in a system which is not free from reflections. The method of analysis is applicable to any number of cascaded attenuators, but only the analysis of two and three variable attenuators in cascade is presented. Graphs are given to aid in estimating the limits of mismatch error. In an example, which is considered representative of rigid rectangular waveguide systems, the limits of error are: for two attenuators in cascade, 0.19 db in a 3-db measurement, and 0.17 db in a 40-db measurement; and for three attenuators in cascade, 0.25 db in a 40-db measurement, and 0.23 db in a 75-db measurement.

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