

Abstracts

Computer-Aided Design of a Singly-Matched (S-M) Multiplexer with a Common Junction (Short Papers)

J.-A. Gong and W.-K. Chen. "Computer-Aided Design of a Singly-Matched (S-M) Multiplexer with a Common Junction (Short Papers)." 1993 Transactions on Microwave Theory and Techniques 41.5 (May 1993 [T-MTT]): 886-890.

In this paper, the formulas based on scattering parameters are presented for the design of a multiplexer composed of $n - 1$ channel equalizers connected either in parallel or in series at a common junction with a $1/\Omega$ resistive generator and $n - 1$ channel complex loads. It is known as the singly-matched (S-M) multiplexer. A new two-stage computer-aided design approach is developed for the S-M multiplexer. A design example of a three-channel singly-matched multiplexer including the designs of three individual S-M channel equalizers is given to demonstrate the approach.

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