Abstracts

Impedance Transformation and Matching for Lumped Complex Load with Nonuniform Transmission Line

I. Endo, Y. Nemoto and R. Sato. "Impedance Transformation and Matching for Lumped Complex Load with Nonuniform Transmission Line." 1985 Transactions on Microwave Theory and Techniques 33.1 (Jan. 1985 [T-MTT]): 2-8.

New nonuniform transmission-linematching networks for a class of lumped complex loads are presented. A parabolic (or reciprocal parabolic) tapered transmission line, whose exact equivalent circuit is represented by a mixed lumped and distributed circuit, can transform the lumped series RC (or parallel RL) loads into different lumped impedances which are more convenient than the original load impedances for ordinary matching network design. Simple design procedures are described and useful design charts are given. Also, numerical examples are shown including experimental verification.

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