

Design of Transformerless Quasi-Broad-Band Matching Networks for Lumped Complex Loads Using Nonuniform Transmission Lines

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A simple design method for transformerless and lossless quasi-broad-band matching of a lumped RC load is presented by use of a parabolic nonuniform transmission line. The key idea in removing an ideal transformer from the matching network is based on impedance transformation of the nonuniform transmission line, whose mixed lumped and distributed equivalent circuit contains an ideal transformer. Also, illustrative examples and some design curves are presented.

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