Abstracts

Stepped Transformers on TEM-Transmission Lines

V.P. Meschanov, I.A. Rasukova and V.D. Tupikin. "Stepped Transformers on TEM-Transmission Lines." 1996 Transactions on Microwave Theory and Techniques 44.6 (Jun. 1996 [T-MTT]): 793-798.

The paper presents comparative analysis of the properties of impedance stepped transformers both with monotonous and nonmonotonous step-to-step impedance variation. A miniature stepped transformer of a new structure based on a cascade of an even number of uniform transmission line sections has been synthesized. Section lengths are considerably shorter than a quarter of the central wavelength, and the section impedances alternate. The proposed transformers are the simplest to implement among the available analogs. As an example, the results of the solution of the Chebyshev approximation problem for the four-and six-section transformers of different specifications are given.

❑ Return to main document.