

Construction of lossless ladder networks with simple lumped elements connected via commensurate transmission lines

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=127698&lokasi=lokal>

Abstrak

In this work, an algorithm to design lossless ladder networks with simple lumped elements connected via commensurate transmission lines is proposed. After giving the algorithm, a lumped-element low-pass chebyshev filter was transformed to its mixed-element counterpart to illustrate the utilization of the algorithm. The filter, designed for a frequency band around 1 GHz, was fabricated and experimentally characterized. We find very good agreement between measured and simulated transducer power gain over the entire frequency band of interest.