

Abstracts

Computer Design of Filters with Lumped-Distributed Elements or Frequency Variable Terminations

H.J. Carlin and O.P. Gupta. "Computer Design of Filters with Lumped-Distributed Elements or Frequency Variable Terminations." 1969 Transactions on Microwave Theory and Techniques 17.8 (Aug. 1969 [T-MTT] (Special Issue on Computer-Oriented Microwave Practices)): 598-604.

A method for realizing prescribed insertion loss characteristics is presented which is applicable to mixed distributed lumped parameter systems, as well as to transmission line structures which operate into resistive frequency variable terminations. The method utilizes scattering matrix renormalization and is implemented by a computer program. Examples given include capacitor and inductor loaded transmission line sections, as well as a TEM filter terminated in TE_{10} /wave impedances. The insertion loss characteristics have equal ripple passband behavior.

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