Abstracts

Microwave Networks with Equiripple Delay Characteristics

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The problem of finding a characteristic polynomial to provide equiripple delay characteristics in commensurate TEM microwave networks is solved numerically. These polynomials enable the synthesis of such filters in the form of cascaded transmission lines or in the form of stub filters to be undertaken. Results for the orders 2 through 6 are presented. The synthesis of constant delay all-pass networks can also be performed and the method for doing so is presented. The attenuation characteristic corresponding to the equiripple delay filter does not, of course, possess a sharp cutoff, since these filters are of the minimum phase type.

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