Abstracts

Computation of the Hecken Impedance Function (Letters)

J.H. Cloete. "Computation of the Hecken Impedance Function (Letters)." 1977 Transactions on Microwave Theory and Techniques 25.5 (May 1977 [T-MTT]): 440-440.

The Dolph-Chebyshev impedance function derived by Klopfenstein has discontinuities at the taper ends which introduce unwanted effects in certain applications. The Hecken impedance function is not optimum in the Dolph-Chebyshev sense, but achieves matching without impedance steps. For any bandwidth and maximum magnitude of reflection coefficient in the passband, the Hecken taper is only slightly longer than the optimum taper. Hecken's near-optimum taper is therefore an attractive alternative to the optimum taper when impedance discontinuities are undesirable.

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