Abstracts

Design of coupled resonators group delay equalizers

Heng-Tung Hsu, Hui-Wen Yao, A. Zaki and A.E. Atia. "Design of coupled resonators group delay equalizers." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1603-1606 vol.3.

A systematic design procedure for coupled resonators cavity group delay equalizers is presented. The procedure consists of solving the approximation problem by optimization and solving the synthesis problem. The error function for the optimization is computed from filter's group delay and the zeros and poles of the input impedance of the equalizer. Convergence of the optimization is fast and insensitive to the initial guess even when the number of resonators is large. Two examples together with experimental results are presented to show the powerfulness and effectiveness of the proposed procedure.

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