

Abstracts

Computation of Resonant Frequencies and Quality Factors of Open Dielectric Resonators by a Combination of the Finite-Difference Time-Domain (FDTD) and Prony's Methods

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Open dielectric resonators using the FDTD method are analyzed. Resonant frequencies and quality factors are calculated using Prony's method instead of the classical fast Fourier transform. In this way, reductions of up to two orders of magnitude are achieved in computation time. The results obtained are in good agreement with those reported by other authors.

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