

Abstracts

Gradient-based optimization of filters using FDTD software

P. Kozakowski and M. Mrozowski. "Gradient-based optimization of filters using FDTD software." 2002 Microwave and Wireless Components Letters 12.10 (Oct. 2002 [MWCL]): 389-391.

This letter discusses gradient optimization of band-pass filters using electromagnetic simulation software based on the finite difference-time domain algorithm. It is shown that even high-Q-factor circuits can be optimized in acceptable time if robust digital signal processing techniques that take into account signal dynamics are used to predict the frequency behavior of a structure from relatively short sample sequences.

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