

## A Combination of FD-TD and Prony's Methods for Analyzing Microwave Integrated Circuits (1991 Vol. III [MWSYM])

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It is demonstrated in this paper that in applying the FD-TD technique to analyze microwave integrated circuits, the long FD-TD time record required for generating accurate frequency domain scattering parameters can be extrapolated from a relatively short FD-TD time record by using Prony's method. As shown by comparison with the direct FD-TD generated results, the new approach using the combination of FD-TD and Prony's methods achieves the same type of accuracy with a time record computed over a much shorter time.

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