Abstracts

Physical simulation of complete millimeter-wave amplifiers using full-wave FDTD technique

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In this paper, the characterization of high frequency microwave amplifiers using a full-wave analysis coupled with physical modeling of the semiconductor device is presented. The simulation includes the input and output matching networks and the transistor as well. The entire amplifier is simulated with FDTD algorithm which also solves for the electromagnetic fields inside the transistor. The frequency dependence of the scattering parameters for the amplifier is presented.

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