

Full-wave analysis of X-band MMIC pre-matched power cell

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Accurate simulation and characterization of MMIC pre-matched power cells is essential to achieve optimum design of X-band high performance amplifiers. However, the cell topology and dimensions pose serious challenges to numerical analysis. As part of an ongoing effort towards the complete non-linear analysis and characterization of the device, the extended FDTD technique has been used to study the passive part of the pre-matched power cell. In particular, the effects of the input matching network MIM capacitors on the field distribution in the whole device have been investigated.

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