

COMPACT DEVICE MODELING USING VERILOG-AMS AND ADMS

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ABSTRACT

This paper shows how high level language such as Verily-AMS can serve as support for compact modeling development of new devices. First section gives a full Verily-AMS code of a simplified bipolar transistor. Each part of the code is carefully examined and explained. Second section compares different implementations of the simplified bipolar transistor in different spice simulators. ADMS, an open-source tool developed at Motorola, performs the implementation from Verily-AMS to simulators. Third section concludes the paper by describing the implementation of the EKV model into ADS using the compact model interface provided by Agilent.