

基于 UVM 的 CPU 卡芯片验证平台

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摘 要：介绍了一种基于 UVM (Universal Verification Methodology) 验证方法学的验证平台.该验证平台是针对基于自主知识产权的国产 MCU C0 的 CPU 卡芯片的功能验证需求所搭建的.该验证平台采用面向对象的层次化的建模方法,完成了符合 ISO14443 协议的验证事务,通用功能验证组件以及设计参考模型的建模;能实时监测设计中信号的变化,能实现在验证过程中验证结果的自动对比,能根据覆盖率调整验证的进程.验证结果表明,该验证平台具有复用性,提升了芯片验证的效率和可靠性.

关键词：UVM 验证方法学; CPU 卡芯片; System verilog; 功能验证

Testbench of CPU Card Chip Based on UVM

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Abstract: This paper introduced a verification platform which is based on the UVM(Universal Verification Methodology). This platform was built for meeting the needs of functional verification about the CPU card chip that is based on c0-mcu. This platform used the object-oriented and layered modeling method to accomplish the verification accord with ISO14443 protocol and also the modeling of the general function elements and design model reference. This platform could monitor signal changes in the design in realtime. the platform could check the signal automatically. Results showed that the verification platform is reusable, enhance the efficiency and reliability of the verification.

Key words: UVM; CPU card; system verilog; functional verification

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