

基于VIP模型的IP核自动化评测平台开发

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摘要: 为了提高IP核的评测效率, 简化评测平台的搭建过程, 以AMBA总线VIP模型为基础, 搭建IP核评测平台. 但使用VIP模型依旧需要一系列繁琐的手动设置, 因此本文使用Perl语言开发自动化评测平台及其界面程序. 图形化界面程序能调用VIP模型自动完成评测平台的搭建, 评测人员可通过图形界面对评测平台进行设置, 提供编写好的验证向量, 实现IP核功能评测的自动化. 使用该程序对一DES加密算法IP核进行评测, 结果表明能够满足评测平台搭建与IP核评测自动化的要求, 使用该方法对IP核自动化评测能大大简化操作步骤, 评测流程更加直观.

关键词: VIP模型; IP核; 评测平台; 图形界面; 脚本程序

Development of IP Core Automatic Evaluation Platform Based on VIP Model

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Abstract: In order to improve the evaluation efficiency of IP core and simplify the construction of evaluation platform, we set up IP core evaluation platform based on AMBA bus VIP model. But the use of VIP model still need a series of complicated manual settings, this paper uses the Perl language to develop an automation evaluation platform and its interface program. Graphical user interface program can call the VIP model automatically to establish the evaluation platform. Engineers set up the IP core evaluation platform by graphical interface, and provides a good verification vectors to achieve IP core function evaluation automatically. The program is used to evaluate the IP core of a DES encryption algorithm, which satisfy the requirements of automated building the evaluation platform and IP core evaluation, and the use of this method to IP core automation evaluation can greatly simplify the operation steps and make the evaluation process more intuitive.

Key words: VIP model; IP core; evaluation platform; GUI; scripts

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