

一种适用于 FPGA 的可配置、兼容多标准 差分驱动器电路

文 艺¹, 张 健²

(1 电子科技大学 自动化工程学院, 四川 成都 611731; 2 北京微电子技术研究所, 北京 100076)

摘 要: 提出了一种适用于 FPGA 器件, 且可配置、兼容多种差分标准的驱动器电路设计, 通过灵活的可配置电路结构和精确的驱动电流控制电路, 实现了 LVDS25、LVDS33、LVDS25-EXT、LVDS33-EXT、LDT25 等 5 种主流差分标准的驱动器, 这已成功应用于多款 FPGA 芯片设计中。

关键词: FPGA; 可配置; 兼容多标准; 差分驱动器

中图分类号: TN4

文献标识码: A

文章编号: 1000-7180(2015)12-0169-04

A Kind of Configurable Differential Driver Circuit with a Compatililty of Multi-Stand Applying to FPGA

WEN Yi¹, ZHANG Jian²

(1 School of Automation Engineering, University of Electronic Science and Technology,
Chengdu 611731, China; 2 Beijing Microelectronics Technology Institute, Beijing 100076, China)

Abstract: This paper presents a configurable differential driver design which is suitable for FPGA devices and is configurable, compatible with multi standards. Based on the flexible structure of configurable circuit and the precisely controlled driving current circuit, the proposed differential driver is compatible with five widely used I/O standards, including LVDS25, LVDS33, LVDS25-EXT, LVDS33-EXT and LDT25. This design has been successfully applied to multiple FPGA chips.

Key words: FPGA; configurable; multi standard compatible; differential driver

作者简介:

文 艺 女, (1990-), 硕士研究生. 研究方向为宽带时域电路设计及测试技术.

张 健 男, (1985-), 研究生, 工程师. 研究方向为 FPGA 中嵌入的模拟集成电路和高速 IO 接口设计.

E-mail: 15011589626@163.com.