

<<复杂SoC设计>>

图书基本信息

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内容概要

本书首次对以处理器为核心的SoC设计进行了统一的硬件/软件设计指导，是一本全面的、以实例为导向的指导书，能够帮助读者使用可配置的、可扩展的处理器来创建设计项目。

本书利用Tensilica公司的Xtensa结构和TIE语言，系统地阐明了以处理器为核心进行设计的问题、机遇和挑战。

Rowen介绍了一种全新的设计方法，然后介绍了其基本技术：处理器配置、扩展、硬件/软件协同生成、多处理器划分/通信等。

本书内容还包括：为什么可扩展的处理器是必需的：当前设计方法有什么缺点。

将可扩展的处理器结构与传统的处理器及硬连线逻辑电路相比较。

延迟、吞吐率、并行功能的协调、硬件互连选择、设计复杂度的管理等问题。

针对嵌入式系统的多处理器SoC结构。

从软件和硬件开发者角度观察的任务设计。

先进的技术：实现复杂的状态机、任务-任务之间的同步、功率优化等。

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作者简介

Chris Rowen博士 Tensilica公司 (在高产量系统中, 该公司在使用专用微处理器的自动生成方面居于领先地位) 的总裁、CEO和创始人。
他在斯坦福大学参与了RISC结构的最初研发工作, 帮助创建了MIPS Computer Systems公司, 并曾在Synopsys公司任Design Reuse Group (设计复用集

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