

面向三维实体建模的MEMS设计方法

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基金项目：国家高技术发展计划（863）

摘要：

本文根据“所见即所得”的设计理念，提出了一种面向三维实体建模的MEMS设计方法，实现了从三维实体到系统级模型或工艺版图的设计流程，使设计者可以首先直接建立器件的三维实体模型，在完成有限元分析后，可以通过组件映射和宏模型提取的方式获得系统级模型，再通过自动版图转换得到相应的工艺版图。此设计方法可以提高设计效率，并且保证了模型数据在各个设计层级之间传递时的一致性和精确性。

关键词：MEMS, 三维实体建模, 设计方法

A 3D Solid Modeling Oriented MEMS Design Approach

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Abstract:

Driven by the “What You See Is What You Get” design concept, this paper presents a 3D solid modeling oriented MEMS design approach which ensures a design flow from 3D solid model to system-level model and process layout. In this design flow, the 3D solid model is firstly constructed, after FEA simulation, the system-level model can be obtained via component mapping and macro-model extraction, also obtained is the layout through automatic layout conversion. This design approach enhances the design efficiency, and the consistency and accuracy of model data can be assured.

Keywords: MEMS, 3D solid modeling, design approach

投稿时间：2010-09-02

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