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Design assurance guidelines for complex integrated circuits

复杂集成电路设计保证指南

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Table of Contents

Preface	III
1 Scope	1
2 Normative references	1
3 Terms, Definitions and Abbreviations	1
3.1 Terms and Definitions	1
3.2 Abbreviations	2
4 Complex Integrated Circuit Design	2
4.1 Complex IC Design Process	2
4.2 Complex IC System Requirements Analysis and Complex IC Design Specification Definition	3
4.3 Digital Circuit Design of Complex Integrated Circuits	4
4.4 Analog Circuit Design of Complex Integrated Circuits	6
4.5 Design for Testability of Complex Integrated Circuits	7
4.6 Reliability Design of Complex Integrated Circuits	8
4.7 Complex Integrated Circuit Verification	11
5 Quality Assurance of Complex Integrated Circuit Design	12
5.1 Overview	12
5.2 Complex Integrated Circuit Design Quality Assurance Work Content	12
5.3 Details of design quality assurance work at each stage	13
Appendix A (Normative) List of deliverable documents for the main development phase	17

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Design Assurance Guidelines for Complex Integrated Circuits

1 Scope

This document provides the design process for complex integrated circuits and the design quality assurance work content at each stage.

This document is suitable for guiding the establishment of complex integrated circuit design processes and quality assurance.

2 Normative references

GB/T 4365-2003

GB/T 9178

GB/T 12750-2006

GB/T 16464-1996

GB/T 17574-1998

GB/T 17940-2000

GB/T 18349-2001

GB/T 37979-2019

3.1 Terms and Definitions

GB/T 9178, GB/T 16464-1996, GB/T 17574-1998, GB/T 17940-2000, GB/T 18349-2001, The terms and definitions defined in GB/T 37979-2019 and GB/T 4365-2003 and the following apply to this document.

3.1.1

A variety of integrated circuits that can be programmed and customized by the user for specific applications.

3.1.2 Digital circuit inputdigitalcircuitentry

The design process of describing logic circuits using a design language.

3.1.3 logic synthesis

The process of converting a behavioral-level description of a circuit into a gate-level representation.

3.1.4 The process of chip layout

Based on semiconductor technology, the required logic functions are mapped and implemented with effective modules, gate units and other logic units, and the front-end netlist is converted