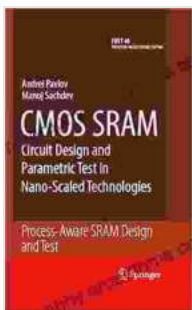


CMOS SRAM Circuit Design and Parametric Test in Nano-Scaled Technologies

In the rapidly evolving field of nano-scaled technologies, the design and testing of CMOS SRAM circuits have become increasingly critical. This comprehensive book offers a comprehensive overview of the latest advances in this vital area, providing readers with the knowledge and skills they need to design, analyze, and test SRAM circuits effectively.

Understanding the Basics of CMOS SRAM Circuits

To fully grasp the challenges and complexities of SRAM circuit design, readers must first understand the fundamental principles and operating mechanisms of these circuits. This book begins with a thorough to the basics of CMOS SRAM circuits, covering topics such as:



CMOS SRAM Circuit Design and Parametric Test in Nano-Scaled Technologies: Process-Aware SRAM Design and Test (Frontiers in Electronic Testing Book 40)

★★★★★ 5 out of 5

Language : English

File size : 4339 KB

Text-to-Speech : Enabled

Print length : 212 pages



- SRAM cell architecture and operation

- Static noise margin (SNM)
- Read and write operations
- Power consumption and leakage

Advanced Design Techniques for Nano-Scaled Technologies

As technology nodes continue to shrink, conventional SRAM circuit design techniques become less effective. This book explores advanced design techniques that are essential for SRAM circuit design in nano-scaled technologies, including:

- FinFET and GAAFET devices
- High- κ metal gate (HKMG) dielectrics
- Body biasing techniques
- Gate splitting and leakage reduction mechanisms

Comprehensive Coverage of Parametric Testing

Parametric testing is crucial for ensuring the reliability and performance of SRAM circuits. This book provides in-depth coverage of parametric testing techniques, including:

- Static and dynamic tests
- Voltage and temperature stress tests
- Process variation and aging effects
- Fault modeling and diagnosis

Hands-On Applications and Case Studies

To solidify readers' understanding, this book includes numerous hands-on applications and case studies that illustrate the practical implementation of SRAM circuit design and parametric testing techniques. These examples cover a wide range of applications, including:

- Low-power SRAM design for mobile devices
- High-performance SRAM design for data centers
- Automotive and aerospace SRAM design

Key Features and Benefits

- Comprehensive coverage of SRAM circuit design and parametric testing in nano-scaled technologies
- Written by leading experts in the field
- In-depth analysis of advanced design techniques and test methodologies
- Hands-on applications and case studies for practical implementation
- Up-to-date information on the latest industry trends and developments

Target Audience

This book is an essential resource for:

- Circuit designers working in the field of nano-scaled technologies
- Test engineers responsible for SRAM testing

- Graduate students and researchers studying CMOS SRAM design and testing
- Anyone seeking a comprehensive understanding of the latest advances in SRAM circuit technology

About the Authors

The authors of this book are renowned experts in the field of CMOS SRAM circuit design and parametric testing. They have extensive experience in industry and academia, and have made significant contributions to the advancement of SRAM technology. Their expertise ensures that readers receive the most up-to-date and authoritative information available.

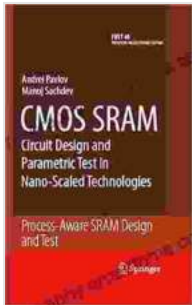
Free Download Your Copy Today

If you are involved in the design, testing, or research of CMOS SRAM circuits in nano-scaled technologies, this book is an invaluable resource. Free Download your copy today and gain a comprehensive understanding of the latest advances in this critical area.

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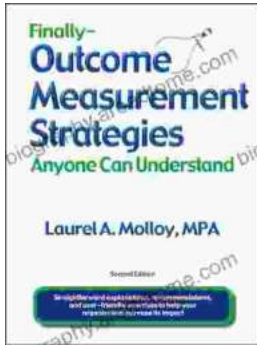
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