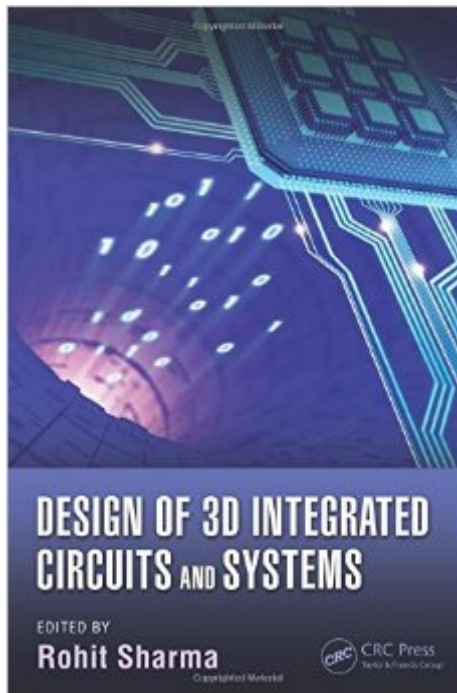


The book was found

Design Of 3D Integrated Circuits And Systems (Devices, Circuits, And Systems)



Synopsis

Three-dimensional (3D) integration of microsystems and subsystems has become essential to the future of semiconductor technology development. 3D integration requires a greater understanding of several interconnected systems stacked over each other. While this vertical growth profoundly increases the system functionality, it also exponentially increases the design complexity. *Design of 3D Integrated Circuits and Systems* tackles all aspects of 3D integration, including 3D circuit and system design, new processes and simulation techniques, alternative communication schemes for 3D circuits and systems, application of novel materials for 3D systems, and the thermal challenges to restrict power dissipation and improve performance of 3D systems. Containing contributions from experts in industry as well as academia, this authoritative text: Illustrates different 3D integration approaches, such as die-to-die, die-to-wafer, and wafer-to-wafer Discusses the use of interposer technology and the role of Through-Silicon Vias (TSVs) Presents the latest improvements in three major fields of thermal management for multiprocessor systems-on-chip (MPSoCs) Explores ThruChip Interface (TCI), NAND flash memory stacking, and emerging applications Describes large-scale integration testing and state-of-the-art low-power testing solutions Complete with experimental results of chip-level 3D integration schemes tested at IBM and case studies on advanced complementary metal-oxide-semiconductor (CMOS) integration for 3D integrated circuits (ICs), *Design of 3D Integrated Circuits and Systems* is a practical reference that not only covers a wealth of design issues encountered in 3D integration but also demonstrates their impact on the efficiency of 3D systems.

Book Information

Series: Devices, Circuits, and Systems (Book 33)

Hardcover: 324 pages

Publisher: CRC Press (November 12, 2014)

Language: English

ISBN-10: 146658940X

ISBN-13: 978-1466589407

Product Dimensions: 6.2 x 1 x 9.1 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,024,639 in Books (See Top 100 in Books) #629 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Circuits > Design #858 in Books >

Science & Math > Physics > Dynamics > Thermodynamics #1677 inÂ Books > Textbooks >
Science & Mathematics > Mechanics

[Download to continue reading...](#)

Design of 3D Integrated Circuits and Systems (Devices, Circuits, and Systems) Advances in 3D
Integrated Circuits and Systems (Series on Emerging Technologies in Circuits and Systems)
Low-Voltage/Low-Power Integrated Circuits and Systems: Low-Voltage Mixed-Signal Circuits (IEEE
Press Series on Microelectronic Systems) Design With Operational Amplifiers And Analog
Integrated Circuits (McGraw-Hill Series in Electrical and Computer Engineering) Analysis and
Design of Analog Integrated Circuits, 5th Edition Analysis and Design of Digital Integrated Circuits
Design with Operational Amplifiers and Analog Integrated Circuits Analysis and Design of Analog
Integrated Circuits (4th Edition) Design of Analog CMOS Integrated Circuits Variation-Aware Design
of Custom Integrated Circuits: A Hands-on Field Guide CMOS Digital Integrated Circuits Analysis &
Design Design of Integrated Circuits for Optical Communications Digital Integrated Circuits: A
Design Perspective The Design of CMOS Radio-Frequency Integrated Circuits, Second Edition
Ultra-Low Voltage Nano-Scale Memories (Integrated Circuits and Systems) Embedded Memories
for Nano-Scale VLSIs (Integrated Circuits and Systems) Radio Frequency Integrated Circuits and
Systems Principles of Transistor Circuits, Eighth Edition: Introduction and guide to the design of
amplifiers, function generators, receivers and digital circuits Design Research in Information
Systems: Theory and Practice: 22 (Integrated Series in Information Systems) US Army Technical
Manual, ARMY DATA SHEETS FOR CARTRIDGES, CARTRIDGE ACTUATED DEVICES AND
PROPELLANT ACTUATED DEVICES, FSC 1377, TM 43-0001-39, 1991

[Dmca](#)