
Cmos Active Inductors And Transformers Principle Implementation And Applications 1st Edition

VLSI Design and Test
 Transformers and Inductors for Power Electronics
 Low Power Circuits for Emerging Applications in Communications, Computing, and Sensing
 Progress in Intelligent Computing Techniques: Theory, Practice, and Applications
 Model and Design of Improved Current Mode Logic Gates
 Analog Circuit Design
 Proceedings of the International e-Conference on Intelligent Systems and Signal Processing
 The Design of CMOS Radio-Frequency Integrated Circuits
 Inductors and Transformers for Power Electronics
 Recent Innovations in Computing
 Transformer and Inductor Design Handbook
 DCIS2002
 Applied Electromechanical Devices and Machines for Electric Mobility Solutions
 Parasitic-Aware Optimization of CMOS RF Circuits
 Power Amplifiers for the S-, C-, X- and Ku-bands
 CMOS Analog IC Design for 5G and Beyond
 RF CMOS Oscillators for Modern Wireless Applications
 Semiconductor-Based Sensors
 CMOS Time-Mode Circuits and Systems
 Low-Voltage Low-Power CMOS Current Conveyors
 CMOSET 2007 Mixed Signal Track Presentation Slides
 Injection-Locking in Mixed-Mode Signal Processing
 State-of-the-Art of Millimeter-Wave Silicon Technology
 Intelligent Data Communication Technologies and Internet of Things
 AI Techniques for Reliability Prediction for Electronic Components
 Design of CMOS RF Integrated Circuits and Systems
 CMOS Current Amplifiers
 CMOS 60-GHz and E-band Power Amplifiers and Transmitters
 Advanced VLSI Design and Testability Issues
 Magnetic Core Selection for Transformers and Inductors
 CMOS Circuits for Passive Wireless Microsystems
 CMOS Integrated Circuit Design for Wireless Power Transfer
 Integrated Inductors and Transformers
 CMOS Current Amplifiers
 CMOS Active Inductors and Transformers
 Distributed CMOS Bidirectional Amplifiers
 Electronic Transformers and Circuits
 Systems-Level Packaging for Millimeter-Wave Transceivers
 Computational Intelligence in Analog and Mixed-Signal (AMS) and Radio-Frequency (RF) Circuit Design
 Circuits at the Nanoscale

Cmos Active Inductors And Transformers Principle Implementation And Applications 1st Edition Downloaded from archive.imba.com by guest

KALEIGH ARIAS

VLSI Design and Test Springer Nature

This book constitutes the refereed proceedings of the 23rd International Symposium on VLSI Design and Test, VDAT 2019, held in Indore, India, in July 2019. The 63 full papers were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections named: analog and mixed signal design; computing architecture and security; hardware design and optimization; low power VLSI and memory design; device modelling; and hardware implementation.

Transformers and Inductors for Power Electronics CRC Press

This book provides a system-level approach to making packaging decisions for millimeter-wave transceivers. In electronics, the

packaging forms a bridge between the integrated circuit or individual device and the rest of the electronic system, encompassing all technologies between the two. To be able to make well-founded packaging decisions, researchers need to understand a broad range of aspects, including: concepts of transmission bands, antennas and propagation, integrated and discrete package substrates, materials and technologies, interconnects, passive and active components, as well as the advantages and disadvantages of various packages and packaging approaches, and package-level modeling and simulation. Packaging also needs to be considered in terms of system-level testing, as well as associated testing and production costs, and reducing costs. This peer-reviewed work contributes to the extant scholarly literature by addressing the aforementioned concepts and applying them to the context of the millimeter-wave regime and the unique opportunities that this transmission approach offers.

Low Power Circuits for Emerging Applications in Communications,

Computing, and Sensing Springer

This book presents MOSFET-based current mode logic (CML) topologies, which increase the speed, and lower the transistor count, supply voltage and power consumption. The improved topologies modify the conventional PDN, load, and the current source sections of the basic CML gates. Electronic system implementation involves embedding digital and analog circuits on a single die shifting towards mixed-mode circuit design. The high-resolution, low-power and low-voltage analog circuits are combined with high-frequency complex digital circuits, and the conventional static CMOS logic generates large current spikes during the switching (also referred to as digital switching noise), which degrade the resolution of the sensitive analog circuits via supply line and substrate coupling. This problem is exacerbated further with scaling down of CMOS technology due to higher integration levels and operating frequencies. In the literature, several methods are described to reduce the propagation of the digital switching noise. However, in high-resolution applications, these methods are not sufficient. The conventional CMOS static logic is no longer an effective solution, and therefore an alternative with reduced current spikes or that draws a constant supply current must be selected. The current mode logic (CML) topology, with its unique property of requiring constant supply current, is a promising alternative to the conventional CMOS static logic.

Progress in Intelligent Computing Techniques: Theory, Practice, and Applications Ed. Universidad de Cantabria

This book solicits the innovative research ideas and solutions for almost all the intelligent data intensive theories and application domains. The proliferation of various mobile and wireless communication networks has paved way to foster a high demand for intelligent data processing and communication technologies. The potential of data in wireless mobile networks is enormous, and it constitutes to improve the communication capabilities profoundly. As the networking and communication applications are becoming more intensive, the management of data resources and its flow between various storage and computing resources are posing significant research challenges to both ICT and data science community. The general scope of this book covers the design, architecture, modeling, software, infrastructure and applications of intelligent communication architectures and systems for big data or data-intensive applications. In particular, this book reports the novel and recent research works on big data, mobile and wireless networks, artificial intelligence, machine learning, social network mining, intelligent computing technologies, image analysis, robotics and autonomous systems, data security and privacy.

Model and Design of Improved Current Mode Logic Gates CRC Press

This book provides the most comprehensive and in-depth coverage of the latest circuit design developments in RF CMOS technology. It is a practical and cutting-edge guide, packed with proven circuit techniques and innovative design methodologies for solving challenging problems associated with RF integrated circuits and systems. This invaluable resource features a collection of the finest design practices that may soon drive the system-on-chip revolution. Using this book's state-of-the-art design techniques, one can apply existing technologies in novel ways and to create new circuit designs for the future.

Analog Circuit Design CRC Press

This comprehensive reference offers ready access to the most up-to-date information on all facets of electronic transformer design. Coverage includes full treatments of the principles of transformer operation and behavior, construction, cooling considerations, and overload protection. This edition is

thoroughly updated to incorporate the latest information on new core and construction materials and gaseous insulants. Contains expanded coverage of size versus rating as affected by new cooling techniques, polyphase capacitor input filters material (including a discussion of semiconductor/rectifier technology) and saturating devices. New chapters cover inverter transformers, inverter circuits, high voltage applications, and the design of special transformers.

Proceedings of the International e-Conference on Intelligent Systems and Signal Processing CRC Press

This concise and modern book on current conveyors considers first and second-generation devices in a general environment and for low-voltage low-power applications. It constitutes an excellent reference for analogue designers and researchers and is suitable as a textbook in an advanced course on microelectronics.

The Design of CMOS Radio-Frequency Integrated Circuits Wiley-Interscience

In the arena of parasitic-aware design of CMOS RF circuits, efforts are aimed at the realization of true single-chip radios with few, if any, off-chip components. The parasitic-aware RF circuit synthesis techniques described in this book effectively address critical problems in this field.

Inductors and Transformers for Power Electronics Springer Science & Business Media

While mobile phones enjoy the largest production volume ever of any consumer electronics products, the demands they place on radio-frequency (RF) transceivers are particularly aggressive, especially on integration with digital processors, low area, low power consumption, while being robust against process-voltage-temperature variations. Since mobile terminals inherently operate on batteries, their power budget is severely constrained. To keep up with the ever increasing data-rate, an ever-decreasing power per bit is required to maintain the battery lifetime. The RF oscillator is the second most power-hungry block of a wireless radio (after power amplifiers). Consequently, any power reduction in an RF oscillator will greatly benefit the overall power efficiency of the cellular transceiver. Moreover, the RF oscillators' purity limits the transceiver performance. The oscillator's phase noise results in power leakage into adjacent channels in a transmit mode and reciprocal mixing in a receive mode. On the other hand, the multi-standard and multi-band transceivers that are now trending demand wide tuning range oscillators. However, broadening the oscillator's tuning range is usually at the expense of die area (cost) or phase noise. The main goal of this book is to bring forth the exciting and innovative RF oscillator structures that demonstrate better phase noise performance, lower cost, and higher power efficiency than currently achievable. Technical topics discussed in RF CMOS Oscillators for Modern Wireless Applications include: □ Design and analysis of low phase-noise class-F oscillators □ Analyze a technique to reduce 1/f noise up-conversion in the oscillators □ Design and analysis of low power/low voltage oscillators □ Wide tuning range oscillators □ Reliability study of RF oscillators in nanoscale CMOS

Recent Innovations in Computing Springer

Although they are some of the main components in the design of power electronic converters, the design of inductors and transformers is often still a trial-and-error process due to a long working-in time for these components. Inductors and Transformers for Power Electronics takes the guesswork out of the design and testing of these systems and provides a broad overview of all aspects of design. Inductors and Transformers for Power Electronics uses classical methods and numerical tools such as the finite element method to provide an overview of the basics and technological aspects of design. The authors present a

fast approximation method useful in the early design as well as a more detailed analysis. They address design aspects such as the magnetic core and winding, eddy currents, insulation, thermal design, parasitic effects, and measurements. The text contains suggestions for improving designs in specific cases, models of thermal behavior with various levels of complexity, and several loss and thermal measurement techniques. This book offers in a single reference a concise representation of the large body of literature on the subject and supplies tools that designers desperately need to improve the accuracy and performance of their designs by eliminating trial-and-error.

Transformer and Inductor Design Handbook Springer

The book addresses the need to investigate new approaches to lower energy requirement in multiple application areas and serves as a guide into emerging circuit technologies. It explores revolutionary device concepts, sensors, and associated circuits and architectures that will greatly extend the practical engineering limits of energy-efficient computation. The book responds to the need to develop disruptive new system architectures, circuit microarchitectures, and attendant device and interconnect technology aimed at achieving the highest level of computational energy efficiency for general purpose computing systems. Features Discusses unique technologies and material only available in specialized journal and conferences Covers emerging applications areas, such as ultra low power communications, emerging bio-electronics, and operation in extreme environments Explores broad circuit operation, ex. analog, RF, memory, and digital circuits Contains practical applications in the engineering field, as well as graduate studies Written by international experts from both academia and industry [DCIS2002](#) Springer Science & Business Media

This book focuses on the development of design techniques and methodologies for 60-GHz and E-band power amplifiers and transmitters at device, circuit and layout levels. The authors show the recent development of millimeter-wave design techniques, especially of power amplifiers and transmitters, and presents novel design concepts, such as “power transistor layout” and “4-way parallel-series power combiner”, that can enhance the output power and efficiency of power amplifiers in a compact silicon area. Five state-of-the-art 60-GHz and E-band designs with measured results are demonstrated to prove the effectiveness of the design concepts and hands-on methodologies presented. This book serves as a valuable reference for circuit designers to develop millimeter-wave building blocks for future 5G applications.

Applied Electromechanical Devices and Machines for Electric Mobility Solutions Cambridge University Press

Written as a companion to Transformer and Inductor Design Handbook (second ed), this work compiles the specifications of over 12,000 industrially available cores and brings them in line with standard units of measurement, simplifying the selection of core configurations for the design of magnetic components.

Parasitic-Aware Optimization of CMOS RF Circuits Springer Science & Business Media

Este libro contiene las presentaciones de la XVII Conferencia de Diseño de Circuitos y Sistemas Integrados celebrado en el Palacio de la Magdalena, Santander, en noviembre de 2002. Esta Conferencia ha alcanzado un alto nivel de calidad, como consecuencia de su tradición y madurez, que lo convierte en uno de los acontecimientos más importantes para los circuitos de microelectrónica y la comunidad de diseño de sistemas en el sur de Europa. Desde su origen tiene una gran contribución de Universidades españolas, aunque hoy los autores participan desde catorce países

Power Amplifiers for the S-, C-, X- and Ku-bands Springer

This book presents state-of-the-art analog and power management IC design techniques for various wireless power transfer (WPT) systems. To create elaborate power management solutions, circuit designers require an in-depth understanding of the characteristics of each converter and regulator in the power chain. This book addresses WPT design issues at both system- and circuit-level, and serves as a handbook offering design insights for research students and engineers in the integrated power electronics area.

CMOS Analog IC Design for 5G and Beyond CMOS Emerging Technologies

Analog Circuit Design contains the contribution of 18 tutorials of the 20th workshop on Advances in Analog Circuit Design. Each part discusses a specific to-date topic on new and valuable design ideas in the area of analog circuit design. Each part is presented by six experts in that field and state of the art information is shared and overviewed. This book is number 20 in this successful series of Analog Circuit Design, providing valuable information and excellent overviews of: Topic 1 : Low Voltage Low Power, chairman: Andrea Baschiroto Topic 2 : Short Range Wireless Front-Ends, chairman: Arthur van Roermund Topic 3 : Power Management and DC-DC, chairman : Michiel Steyaert. Analog Circuit Design is an essential reference source for analog circuit designers and researchers wishing to keep abreast with the latest development in the field. The tutorial coverage also makes it suitable for use in an advanced design course.

RF CMOS Oscillators for Modern Wireless Applications John Wiley & Sons

This book provides a detailed review of power amplifiers, including classes and topologies rarely covered in books, and supplies sufficient information to allow the reader to design an entire amplifier system, and not just the power amplification stage. A central aim is to furnish readers with ideas on how to simplify the design process for a preferred power amplifier stage by introducing software-based routines in a programming language of their choice. The book is in two parts, the first focusing on power amplifier theory and the second on EDA concepts. Readers will gain enough knowledge of RF and microwave transmission theory, principles of active and passive device design and manufacturing, and power amplifier design concepts to allow them to quickly create their own programs, which will help to accelerate the transceiver design process. All circuit designers facing the challenge of designing an RF or microwave power amplifier for frequencies from 2 to 18 GHz will find this book to be a valuable asset.

Semiconductor-Based Sensors IGI Global

The book focuses on both theory and applications in the broad areas of communication technology, computer science and information security. This two volume book contains the Proceedings of 4th International Conference on Advanced Computing, Networking and Informatics. This book brings together academic scientists, professors, research scholars and students to share and disseminate information on knowledge and scientific research works related to computing, networking, and informatics to discuss the practical challenges encountered and the solutions adopted. The book also promotes translation of basic research into applied investigation and convert applied investigation into practice.

CMOS Time-Mode Circuits and Systems Springer Nature

This book examines the critical differences between current and next-generation Si technologies (CMOS, BiCMOS and SiC) and technology platforms (e.g. system-on-chip) in mm-wave wireless applications. We provide a basic overview of the two technologies from a technical standpoint, followed by a review of the state-of-the-art of several key building blocks in wireless systems. The

influences of system requirements on the choice of semiconductor technology are vital to understanding the merits of CMOS and BiCMOS devices – e.g., output power, battery life, adjacent channel interference, cost restrictions, and so forth. These requirements, in turn, affect component-level design and performance metrics of oscillators, mixers, power and low-noise amplifiers, as well as phase-locked loops and data converters. Finally, the book offers a peek into the next generation of wireless technologies such as THz -band systems and future 6G applications.

Low-Voltage Low-Power CMOS Current Conveyors Springer

In this book, highly qualified multidisciplinary scientists present their recent research that has been motivated by the significance

of applied electromechanical devices and machines for electric mobility solutions. It addresses advanced applications and innovative case studies for electromechanical parameter identification, modeling, and testing of; permanent-magnet synchronous machine drives; investigation on internal short circuit identifications; induction machine simulation; CMOS active inductor applications; low-cost wide-speed operation generators; hybrid electric vehicle fuel consumption; control technologies for high-efficient applications; mechanical and electrical design calculations; torque control of a DC motor with a state-space estimation; and 2D-layered nanomaterials for energy harvesting. This book is essential reading for students, researchers, and professionals interested in applied electromechanical devices and machines for electric mobility solutions.

Related with Cmos Active Inductors And Transformers Principle Implementation And Applications 1st Edition:

• Hans Gross Contribution To Forensic Science : [click here](#)