Synopsis

This expanded and thoroughly revised edition of Thomas H. Lee's acclaimed guide to the design of gigahertz RF integrated circuits features a completely new chapter on the principles of wireless systems. The chapters on low-noise amplifiers, oscillators and phase noise have been significantly expanded as well. The chapter on architectures now contains several examples of complete chip designs that bring together all the various theoretical and practical elements involved in producing a prototype chip. First Edition Hb (1998): 0-521-63061-4 First Edition Pb (1998); 0-521-63922-0

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Customer Reviews

I really appreciate this book, the informal writing style of Prof. Lee and his great sense of humor makes it a real joy to read this book. His main approach is that the book is directed towards engineers, who need to know the required math and physics yet the math and physics must prove useful in real world applications, so the author will use approximations when it seems appropriate and spend little time in mathematical proofs, unless they are absolutely crucial to the topic. This is no beginners book, in my opinion, you must already know a lot about RF design, and specially integrated design, this book will join the gap between those two fields while providing useful applications at higher frequencies that are not covered in the traditional IC design books. The book has a review of MOS devices, but if you are not already familiar with RF design and IC design, then this book will not be very useful to you, I would recommend reading RF and IC design books first, for the RF part: Razavi’s book RF Micro electronics, as well as RF Circuit Design by Ludwig and
Bogdanov, for IC design: Microelectronic Circuits by Sedra/Smith, Analysis and Design of Analog Integrated Circuits by Gray et al. or the new book by Sergio Franco: Analog Circuit Design Discrete & Integrated, is also a real gem. If you are not familiar with communication systems, you should check out the old yet very useful undergraduate textbook: Electronic Communications Systems by Wayne Tomasi, which provides a very basic and general overview of communications circuits and systems, or if you are interested you could also check out the more advanced book Digital and Analog Communication Systems by Leon W. Couch II which is oriented towards advanced undergraduate or graduate students in the telecommunications field.

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Abstract—The design of analog and radio-frequency (RF) circuits in CMOS technology becomes increasingly more difficult as device modeling faces new challenges in deep submicrometer processes and emerging circuit applications. The sophisticated set of characteristics used to represent today’s digital technologies often proves inadequate for analog and RF design, mandating many additional measurements and iterations to arrive at an acceptable solution. This paper describes a set of characterization vehicles that can be employed to quantify the analog behavior of active and passive devices in CM...
Radio-Frequency Integrated-Circuit Engineering addresses the theory, analysis and design of passive and active RFIC's using Si-based CMOS and Bi-CMOS technologies, and other non-silicon based technologies. The materials covered are self-contained and presented in such detail that allows readers with only undergraduate electrical...Â Prentice Hall, 2011. â€” 960 p. ISBN 978-0137134731. The Acclaimed RF Microelectronics Best-Seller, Expanded and Updated for the Newest Architectures, Circuits, and Devices Wireless communication has become almost as ubiquitous as electricity, but RF design continues to challenge engineers and researchers. In the 15 years since the first edition of this classic DOWNLOAD PDF. Design of Analog CMOS Integrated Circuits. Read more. Design of Analog CMOS Integrated Circuits. Chapter 2 Basic MOS Device Physics In studying the design of integrated circuits, one of two extreme approaches can b Design of Analog CMOS Integrated Circuits. Design of Analog CMOS Integrated Circuits. Chap. 3 I X1 X2 Single-Stage Amplifiers Figure 3.1 Input-output characteristic of a nonlinear system. X approxima Design of Analog CMOS Integrated Circuits (Solutions).
In studying the design of integrated circuits, one of two extreme approaches can be taken: Design of Analog CMOS Integrated Circuits. Chapter 3

X1 X2 Single-Stage Amplifiers

Figure 3.1 Input-output characteristic of a nonlinear system. X approximates

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