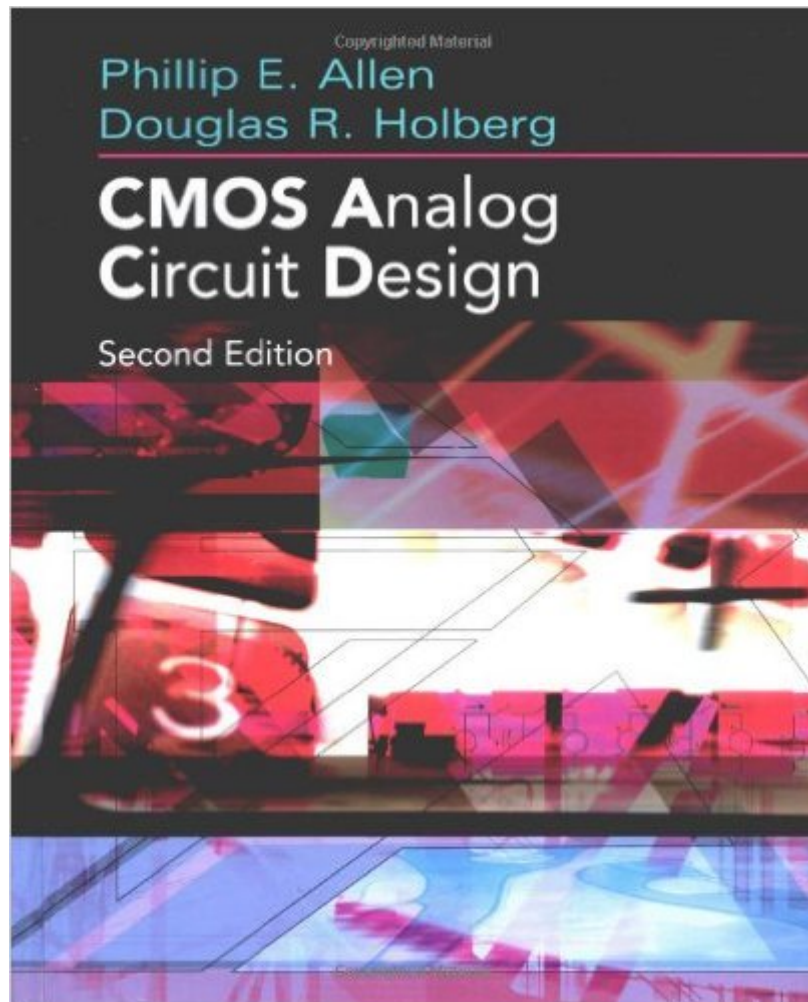The book was found

CMOS Analog Circuit Design

Synopsis

After years of anticipation, respected authors Phil Allen and Doug Holberg bring you the second edition of their popular textbook, CMOS Analog Circuit Design. From the forefront of CMOS technology, Phil and Doug have combined their expertise as engineers and academics to present a cutting-edge and effective overview of the principles and techniques for designing circuits. Their two main goals are: Â to mix the academic and practical viewpoints in a treatment that is neither superficial nor overly detailed and Â to teach analog integrated circuit design with a hierarchically organized approach. Most of the techniques and principles presented in the second edition have been taught over the last ten years to industry members. Their needs and questions have greatly shaped the revision process, making this new edition a valuable resource for practicing engineers. The trademark approach of Phil and Doug's textbook is its design recipes, which take readers step-by-step through the creation of real circuits, explaining complex design problems. The book provides detailed coverage of often-neglected areas and deliberately leaves out bipolar analog circuits, since CMOS is the dominant technology for analog integrated circuit design. Appropriate for advanced undergraduates and graduate students with background knowledge in basic electronics including biasing, modeling, circuit analysis, and frequency response, CMOS Analog Circuit Design, Second Edition, presents a complete picture of design (including modeling, simulation, and testing) and enables readers to design an analog circuit that can be implemented by CMOS technology. Features Â Orients the experience of the expert within the perspective of design methodology Â Identifies common mistakes made by beginning designers Â Provides problems with each chapter that reinforce and develop student understanding Â Contains numerous problems that can be used as homework, quiz, or exam problems Â Includes a new section on switched-capacitor circuits Â Includes helpful appendices that provide simulation techniques and the following supplemental material: A brief review of circuit analysis for CMOS analog design A calculator program for analyzing CMOS circuits A summary of time-frequency domain relationships for second-order systems

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Customer Reviews

Allen & Holberg is a book you should add to your library if you are a mixed signal designer or applications engineer. It is particularly strong in switched capacitor circuits (ch 9) and A/D and D/A conversion circuits (ch 10). It is weak on high speed analog design, and weak in developing the intuition needed for analog design, something Gray and Meyer spends time on. I feel that the text reads much better than Razavi. go to [...] for the book errata.

I personally think there are easier to understand texts. Sedra and Smith does a much better job of systematically explaining concepts with less arm waving. I'm not sure if I got a bad copy but there seem to be a lot of errors in the problems and answers. The author tends to make assumptions/simplifications without telling the student to do so on some problems. Unfortunately Sedra and Smith is big and heavy, this text is easier to carry around.Although a small amount of material, this book does a good job of introducing the student to the IC layout for transistors, resistors, and capacitors. Some texts are overwhelming because of the amount of layout related material, this is a good start. The other thing that this text tends to do well is stress the body connection. However, sometime the author includes it in problems and other times he doesn't.

I bought this book for my nephew, he got it for one of his classes in college, I assume it is pretty good, but as I said before, I did not read it. My nephew though seems to like it very much and suggested that I give it 5 stars, and after all, he is the one using it so he should know. I'm sorry that I cannot give details on this book.

I think the topics covered in this text are excellent. However the authors do not do a good job of explaining some things. They often make assumptions without telling you they are doing so. But this

is minor compared to the big problems...the errors. I had used the first edition for years and thought it was a pretty useful text, but this 2nd edition has more errors than any text I have used in my 24 year career as an electrical engineer. I picked it up and was reading through the comparator section and just a few pages in I had found 7 or 8 errors. Fortunately I did a search for "allen holberg errata" and found a .pdf file. There were 11 pages of errors! Just some examples...only page 455 there are 10 errors. They are in equations and values that were calculated. The next page has 3 errors. The next has one, two pages after that has one. On page 447(4 errors on this page) they even have an error in their correction. The calculation results in -1.17x10^6 and they say this is equivalent to 0.670 Mhz, when it is actually 0.272MHz. I found notes from a lecture by one of the authors from 2002 that had the correct value. So if you are thinking of getting this book because it is cheaper than the 3rd edition, don't do it. Or if you do, be sure to print out the errata and keep it with the book....but I am not so sure I even trust their corrections.

It could be a very good introductory book for the subject. It has plenty of examples and end of chapter problems. It has a lot of graphs, diagrams...etc. I think it is better than the Behzad book, at least as an introductory book on the topic. It is well written in an easy to read style, similar to Sedra and Smith. It is a good one. One thing I do not like about it, is its treatment of SPICE. It deals with SPICE as if it is the same old text based program. I would have liked it better if it had dealt with it in a graphical way.

Too much mathematical derivation, too less engineering intuition or circuit insight! too much effort is spent on deriving formula without exploring the underlying physical fundamentals. it is meaningless to just list a couple of KCL and KVL equations and derive transfer function. It provides you very little circuit insight. Not recommended.

I have first edition of this book when I was graduate student more than 10 years ago. First as xerox version, but I bought the real version because I want to study how to design the compensation network to compensate for simple 2-stage op-amp. I think I have seen second edition of this book, it have many additional detail of how to design other type of operational amplifier. I am not sure second edition describe what is common-mode feedback circuit and how anyone need it for fully differential op-amp design. I think this text do not describe how much different between analysis and design by hand and by HSPICE or Cadence or Agilent EESoft. Especially, parameters such as pole-zero position of the op-amp

If you're buying this, it's probably required reading, either for your job or school. It wasn't horrible, but the story was dry and the plot didn't seem to go anywhere. The author spends most of his time talking about some dude named PMOS and his needy friend NMOS, who only seems to want to take from the poor fellow.

CMOS Analog Circuit Design (The Oxford Series in Electrical and Computer Engineering) CMOS Analog Circuit Design Designing Dynamic Circuit Response (Analog Circuit Design) CMOS SRAM Circuit Design and Parametric Test in Nano-Scaled Technologies: Process-Aware SRAM Design and Test (Frontiers in Electronic Testing) Winter Circuit (Show Circuit Series -- Book 2) (The Show Circuit) Design of Analog CMOS Integrated Circuits Analog Design for CMOS VLSI Systems (The Springer International Series in Engineering and Computer Science) Analog Circuit Design: Art, Science and Personalities (EDN Series for Design Engineers) CMOS Circuit Design, Layout, and Simulation, 3rd Edition (IEEE Press Series on Microelectronic Systems) Nano-CMOS Circuit and Physical Design Dynamic Offset Compensated CMOS Amplifiers (Analog Circuits and Signal Processing) CMOS Nanoelectronics: Analog and RF VLSI Circuits Analog Filters in Nanometer CMOS: 45 (Springer Series in Advanced Microelectronics) Zen of Analog Circuit Design Analog Integrated Circuit Design Analog Filter and Circuit Design Handbook High-Frequency Analog Integrated Circuit Design (Wiley Series in Microwave and Optical Engineering) VLSI Analog Signal Processing Circuits: Algorithm, Architecture, Modeling, and Circuit Implementation Analog Methods for Computer-Aided Circuit Analysis and Diagnosis (Electrical and Computer Engineering) Summer Circuit (Show Circuit Series -- Book 1)