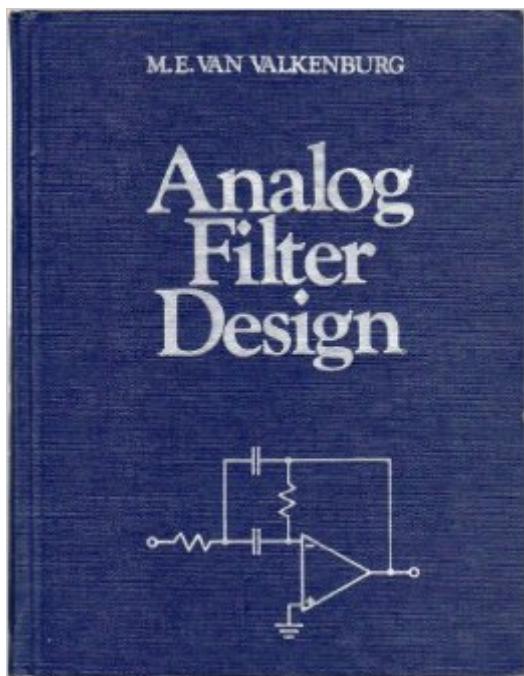


The book was found

# Analog Filter Design



## Synopsis

This classic was the first to fill the need for an undergraduate text in analog filters for electrical engineering. Intended for juniors and seniors with a background in introductory circuits, including Laplace transforms, the text focuses on inductorless filters in which the active element is the operational amplifier (op-amp). Passive LCR filters are excluded except as prototypes from which an active equivalent is then found. Students learn the importance of op-amps to analog systems, which Van Valkenburg equates with the significance of the microprocessor to digital systems. Because the book is intended for undergraduates, sophisticated mathematics has been avoided wherever possible in favor of algebraic derivations. Design topics require at most a hand-held calculator.

## Book Information

Series: H R W Series in Electrical and Computer Engineering

Hardcover: 608 pages

Publisher: Holt, Rinehart and Winston (1982)

Language: English

ISBN-10: 0030592461

ISBN-13: 978-0030592461

Product Dimensions: 7.2 x 1.2 x 9.1 inches

Shipping Weight: 2.2 pounds

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (3 customer reviews)

Best Sellers Rank: #943,660 in Books (See Top 100 in Books) #112 in Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Power Systems #4952 in Books > Science & Math > Nature & Ecology > Conservation #10990 in Books > Science & Math > Physics

## Customer Reviews

(Reviewed by a practicing electrical engineer) This book is an excellent introductory text about analog filter design. It was written for use in teaching a junior-senior level undergraduate class at the University level. The book begins with a review of basic op amp circuits and then progresses to simple one-pole circuit designs. From there, the author builds a step-by-step theoretical background for active filter design, starting with the most fundamental two-pole building block (the biquad circuit), and then showing how to use these to design Chebyshev, Butterworth, and Bessel filter characteristics of any number of poles. Cauer, Inverse Chebyshev, and switched capacitor designs

are also covered. Other highly useful chapters cover delay equalization, sensitivity to component variations, as well as a general design approach for choosing appropriate filter characteristics for a design requirement. The book's main focus is on active filter design using op amp's, although there is also one chapter devoted to passive filter design. Design is stressed in the examples and problems from the very beginning pages, as opposed to mere mathematical analysis. The mathematics are fairly straightforward, mostly algebra, and the text is fairly easy to read and follow. Examples illustrate each chapter segment, and each chapter has questions at the end. I would recommend this book for anyone seeking a basic theoretical understanding and design capability for active filters. (Probably other introductory texts would be better for passive filters.) This is not a "handbook" or "filter cookbook"; it actually lays the theoretical and mathematical groundwork for the filters it teaches you to design.

I was looking for a great book on electronic analog filter design and I have to say that this book is what every person interested on this topic have to buy. It explains very well in detail from the basics all the concepts, from the passive and op amp active circuit analysis to each frequency response. This is great book, along with "Filtering in the Time and Frequency Domains" by H.J. Blinchikoff & A. I. Zverev

Love this book. Great introduction to both op amps and filters, and without too much advanced math. Still need a pencil and pad when reading it, but that's the joy of a good technical book.

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

Analog Filter and Circuit Design Handbook  
Analog Filter Design  
Introduction to Digital Signal Processing and Filter Design  
Filter Design for Satellite Communications: Helical Resonator Technology  
Analog Circuit Design: Art, Science and Personalities (EDN Series for Design Engineers)  
The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think  
DSP Filter Cookbook (Electronics Cookbook Series)  
The Home Water Supply: How to Find, Filter, Store, and Conserve It  
Wavelets and Filter Banks  
Adaptive Filter Theory (5th Edition)  
Mixed-signal and DSP Design Techniques (Analog Devices)  
Design of Analog Filters 2nd Edition (The Oxford Series in Electrical and Computer Engineering)  
CMOS Analog Circuit Design (The Oxford Series in Electrical and Computer Engineering)  
Foundations of Analog and Digital Electronic Circuits (The Morgan Kaufmann Series in Computer Architecture and Design)  
Analysis and Design of Analog Integrated Circuits, 5th Edition  
Zen of Analog Circuit Design  
Design of Analog CMOS Integrated Circuits  
Design With Operational Amplifiers And Analog Integrated Circuits (McGraw-Hill

Series in Electrical and Computer Engineering) Analog Design Essentials (The Springer International Series in Engineering and Computer Science) Analog Design and Simulation using OrCAD Capture and PSpice

[Dmca](#)