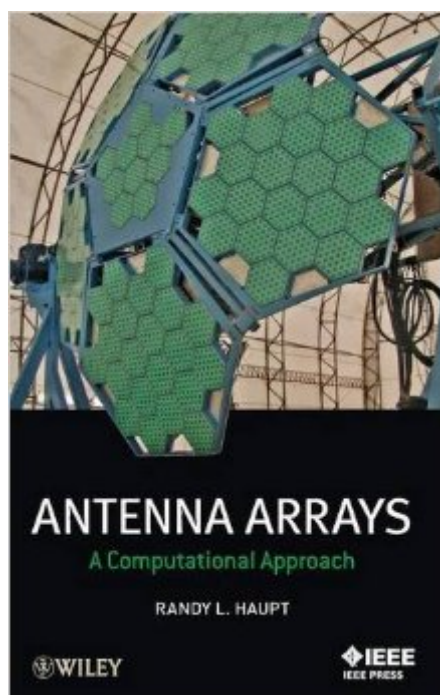


The book was found

# Antenna Arrays: A Computational Approach



## Synopsis

A comprehensive tutorial on the design and practical applications of antenna arrays. An antenna array is an assembly of antenna elements that maximizes a received or transmitted signal in a desired direction. This practical book covers a wide range of antenna array topics that are becoming increasingly important in wireless applications, with emphasis on array design, applications, and computer modeling. Each chapter in *Antenna Arrays* builds upon the previous chapter, progressively addressing more difficult material. Beginning with basic electromagnetics/antennas/antenna systems information, the book then deals with the analysis and synthesis of arrays of point sources and their associated array factors. It presents a sampling of different antenna elements that replace these point sources, then presents element configurations that do not have to lie along a line or in a plane. The complex and difficult-to-predict interactions of elements and electromagnetic waves are introduced, along with computer modeling and experiments that are necessary for predicting the performance of arrays where mutual coupling is important. Then, various approaches to getting signals to and from the array elements to a computer where the signal detection takes place are explored, as are the numerical techniques behind smart antennas. The book emphasizes the computational methods used in the design and analysis of array antennas. Also featured are signal processing and numerical modeling algorithms, as well as pictures of antenna arrays and components provided by industry and government sources, with explanations of how they operate. Fully course-tested, *Antenna Arrays* serves as a complete text in phased array design and theory for advanced undergraduate- and graduate-level courses in electronics and communications, as well as a reference for practicing engineers and scientists in wireless communications, radar, and remote sensing.

## Book Information

Hardcover: 552 pages

Publisher: Wiley-IEEE Press; 1 edition (April 12, 2010)

Language: English

ISBN-10: 0470407751

ISBN-13: 978-0470407752

Product Dimensions: 6.4 x 1.3 x 9.6 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars [See all reviews](#) (2 customer reviews)

Best Sellers Rank: #327,425 in Books (See Top 100 in Books) #15 in [Books > Engineering &](#)

Transportation > Engineering > Telecommunications & Sensors > Antennas #631 inÂ Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics #943 inÂ Books > Computers & Technology > Networking & Cloud Computing > Internet, Groupware, & Telecommunications

## Customer Reviews

This book provides a straightforward introduction to the subject, with lots of examples to illustrate the concepts. One can go straight from this book into the literature and to write software. Best practical introduction to the subject.

No details

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

Antenna Arrays: A Computational Approach Narrowband Direction of Arrival Estimation for Antenna Arrays (Synthesis Lectures on Antennas) Parasitic Antenna Arrays for Wireless MIMO Systems Modern Methods of Reflector Antenna Analysis and Design (Artech House Antenna Library) HDTV Antenna: Over-The-Air HDTV Antenna Instructions Antenna Fundamentals- Module 4: Radio Antenna Systems - Computational Fluid Mechanics and Heat Transfer, Third Edition (Series in Computational and Physical Processes in Mechanics and Thermal Sciences) Computational Photochemistry, Volume 16 (Theoretical and Computational Chemistry) In Silico Medicinal Chemistry: Computational Methods to Support Drug Design (Theoretical and Computational Chemistry Series) Digital Signal Processing with Field Programmable Gate Arrays (Signals and Communication Technology) Substrate Integrated Antennas and Arrays Elementary Number Theory: Primes, Congruences, and Secrets: A Computational Approach (Undergraduate Texts in Mathematics) Computational Complexity: A Modern Approach Antenna Theory: Analysis and Design, 3rd Edition Rig Expert Antenna Analyzer Mini-Manual by Nifty Accessories Practical Antenna Handbook 5/e Antenna Theory: Analysis And Design, 3Rd Ed Small Antenna Handbook DAS 101 Distributed Antenna System: A Basic Guide to In-Building Wireless Infrastructure Antenna Engineering Handbook, Fourth Edition

[Dmca](#)