Recently Published Books for Engineers Specializing in High Frequency Design

Instead of a Q&A column, this month we offer notes on a few books that have been released in the past few months.

**Wireless Network Coexistence**  
By: Robert Morrow  
ISBN: 0071399151  

The author examines issues related to interference between various wireless systems and its management. The author’s preface states that a wireless network should be able to coexist with thermal noise, incoming multipath components, other nodes in its own network, independent networks using the same protocol, independent networks using other protocols and with all other services.

This is a useful reference for engineers who are responsible for designing, building and maintaining reliable wireless networks.

**Microwave Engineering, 3rd Edition**  
David M. Pozar  
ISBN: 0471448788  
John Wiley & Sons (www.wiley.com)

The newest edition (January 2004) of this book focuses on the design of microwave circuits and components, introducing the fundamental concepts necessary for real world design. This Third Edition offers greatly expanded coverage with new material on: noise, nonlinear effects, RF MEMS, transistor power amplifiers, FET mixers, oscillator phase noise, transistor oscillators and frequency multipliers.

**Wireless Spectrum Management**  
By: Amit K. Maitra  
ISBN: 0071409874  

RF spectrum is the most valuable commodity in the wireless market—the wireless equivalent of real estate. Government agencies and private companies developing, using, or selling communications systems and services must be certain their systems are compatible with national and international frequency assignments.

This book is a practical planning guide for any operation offering or planning to offer wireless, clearly explaining the technical, regulatory, and legal aspects of spectrum use. It not only provides rigorous engineering analysis of the properties and availability of key radio bands, but also interprets complex FCC and ITU regulations.

**RFID**  
By: Steven Shepard  
ISBN: 0071442995  

With estimates of the market as high as $10 billion over the next decade, RFID (Radio Frequency Identification) is a booming new wireless technology. This book is a basic introduction, walking readers through the complete implementation and monitoring process, and offers in-depth coverage of related business and security issues. While not an circuit design book, it presents the important system issues that must be met by the design.

**Passive RF and Microwave Integrated Circuits**  
Leo G. Maloratsky  
ISBN: 075067699X  
Newnes—An imprint of Elsevier (800-545-2512)

Integration of RF and microwave circuits offers the advantages of compact, lightweight, designs with enhanced performance, higher reliability, and low cost. In order to focus on the fundamentals of RF and microwave circuits design, this book treats passive components and control devices. The reader will progress from microwave fundamentals of transmission lines and simplest elements to more complicated devices and subassemblies, covering more than 20 novel transmission lines, components, devices, and subassemblies along the way. The final chapter concludes with an overview of the principal concepts of design and fabrication technology of RF and microwave integrated circuits.

Harri Holma (Editor), Antti Toskala (Editor)  
ISBN: 0470870966  
John Wiley & Sons (www.wiley.com)

This highly regarded book describes the air interface of 3G cellular systems. The third edition now covers the key features of 3GPP Release 6 ensuring it remains the leading principal resource in this constantly progressing area. It explains the key parts of the 3GPP/WCDMA standard, presents network dimensioning, coverage and capacity of WCDMA, and introduces TDD and discusses its differences from FDD. Many new topics are included in this edition.