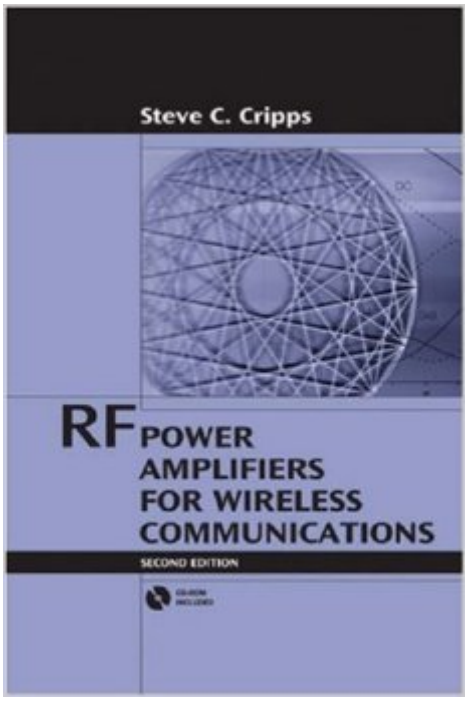
RF Power Amplifiers For Wireless Communications, Second Edition (Artech House Microwave Library)



Synopsis

Reviewing the previous edition, IEEE Microwave Magazine boasted, "anyone designing power amplifiers will find this book thought provoking and useful." Professionals in the field agreed as the book went on to be one of our top-selling RF design titles. This extensively revised edition of RF Power Amplifiers for Wireless Communications offers practitioners a comprehensive, practical, and up-to-date understanding of how to tackle a PA (power amplifier) design with confidence and quickly determine the cause of malfunctioning hardware. Among the numerous updates, the Second Edition includes five new chapters on some of today’s most important topics, such as class AB PAs at GHz frequencies; switching PA modes at GHz frequencies; signals, modulation systems, and PA nonlinearities; power amplifier bias circuit design; and and load-pull techniques. Supported with nearly 200 illustrations, the book contains the most complete survey of RF PA efficiency enhancement and linearization techniques in a single volume. CD-ROM Included! Contains practical design tools and examples to help engineers with their work in the field.

Book Information

File Size: 6959 KB

Print Length: 472 pages

Publisher: Artec House; 2 edition (May 31, 2006)

Publication Date: May 31, 2006

Sold by:Â Digital Services LLC

Language: English

ASIN: B003YFJ70C

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #1,089,599 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #23 inÂ Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Telecommunications > Microwaves #252 inÂ Books > Engineering & Transportation > Engineering > Telecommunications & Sensors > Microwaves #546 inÂ Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Electrical & Electronics > Electricity Principles

Customer Reviews

An excellent source of information. Mr Cripps very articulatly reviews at all classes of RF power amplification, and explains theoretical design principles and suggests improvements. His 'Load-pull' technique method is already widely used in design of PA's and serves as a good design aid. Although I would have liked him to go deeper into 'high-efficiciency PA techniques, spending more time on 'Chierix, Khan and Doherty methods. His book is the best reference on PA's I have seen in the last decade, I could not put it down. I look forward to his next book

I gained a lot of insights from this book. It methodically treats RF power amplifier in a way that develops understanding of the fundamentals. I particulary like the explanation on the Load-Pull Countours/Theory (Ch 2), Matching Network Design for Reduced Conduction Angle PAs(Ch 3), and the Two-Tone Envelope Analysis (Ch 7). In short, thanks to this book, the way I look at PAs has been transformed: from nebulous beliefs and assumptions to insights and better understanding. I believe this book is a must have for Engineers working on RF PAs. Sincerely, ATS

Read an RF/Microwave power amp paper, chances are that you'll find this book cited as a reference, and its no surprise since everything is very well explained and the material covered is extremely useful. Most of what needs to be said, has already been said by the other reviewers, however the only major gripe is that the Excel worksheets provided in the CD and used throughout the entire book do not work properly with Microsoft Office 2010 and above, the author should upload a corrected version of these very useful files for proper analysis.

This second edition has added 120 pages of new material and revised much of the first edition material.The author addresses common misconceptions and overlooked phenomena with explanations and simulation results.

has a bad habit of lumping reviews of all editions together. This review refers to the first edition(1999). I would give the book 5 stars for content but the poor editing deserves to be noted. There are numerous errors in equations and notation. The first chapter alone has three obvious equation errors. Page 2 has subtraction where there should be multiplication. Page 3 left out a magnitude symbol in the k factor. Page 13 has the numerator and denominator swapped. Notation errors occur in the text and plots as well. For example, Vds is sometimes used where VDC was intended and vice versa. I attribute these errors to Artech House editors rather than Mr. Cripps. Perhaps these errors were corrected in the second edition.The author does a wonderful job of

presenting this esoteric topic. The content is arranged in a methodical fashion developing the concepts from idealized models and gradually bringing in more realistic models as the concepts are developed. The author is careful to point out where the simplifications break down. The book is a written in the style of a master teacher; at times anticipating the questions in the reader's mind when new concepts are presented. I highly recommend this book for anyone familiar with RF design and needs to understand the complexities and subtleties of power amplifiers.I would have liked to seen more detail on developing models from data sheets, multistage/inter-stage design, and a few detailed designs from beginning to end. Add the aforementioned wish list and fix the typos and you will have the ultimate text on PA design.

Cripps has a solid reputation for his books on power amplifier design, but I wondered whether a revision would contain sufficient new material to be worthwhile. I was pleasantly surprized by the expanded material, and the new insight into high efficiency designs in particular. Cripps has a special talent for tackling difficult topics and providing a thorough but understandable treatment. Most of all, he seems to always tie the analysis to a unique physical insight.I highly recommend this book.Jim CrescenziIEEE Life Fellow

Technology (Artech House Intelligence and Information Operations) Laser Space Communications (Artech House Space Technology and Applications) Microwave Transistor Amplifiers: Analysis and Design (2nd Edition) High-Power Optically Activated Solid-State Switches (Artech House Optoelectronics Library) Principles of GNSS, Inertial, and Multisensor Integrated Navigation Systems, Second Edition (Artech House Remote Sensing Library) Phased Array Antenna Handbook, Second Edition (Artech House Antennas and Propagation Library)