

RF / Microwave Circuit Design for Wireless Applications. 2nd Edition

Description: Provides researchers and engineers with a complete set of modeling, design, and implementation tools for tackling the newest IC technologies

Revised and completely updated, RF/Microwave Circuit Design for Wireless Applications, Second Edition is a unique, state-of-the-art guide to wireless integrated circuit design that provides researchers and engineers with a complete set of modeling, design, and implementation tools for tackling even the newest IC technologies. It emphasizes practical design solutions for high-performance devices and circuitry, incorporating ample examples of novel and clever circuits from high-profile companies.

Complete with excellent appendices containing working models and CAD-based applications, this powerful one-stop resource:

- Covers the entire area of circuit design for wireless applications
- Discusses the complete system for which circuits are designed as well as the device technologies on which the devices and circuits are based
- Presents theory as well as practical issues
- Introduces wireless systems and modulation types
- Takes a systematic approach that differentiates between designing for battery-operated devices and base-station design

RF/Microwave Circuit Design for Wireless Applications, Second Edition is an indispensable tool for circuit designers; engineers who design wireless communications systems; and researchers in semiconductor technologies, telecommunications, and wireless transmission systems.

Contents:	Foreword xiii
	Preface xv
	1 Introduction to Wireless Circuit Design 1
	1.1 Introduction 1
	1.2 System Functions 3
	1.3 The Radio Channel and Modulation Requirements 5
	1.4 About Bits, Symbols, and Waveforms 29
	1.5 Analysis of Wireless Systems 50
	1.6 Building Blocks 78
	1.7 System Specifications and Their Relationship to Circuit Design 79
	1.8 Testing 108
	1.9 Converting C/N or SNR to EB/N0 123
	2 Models for Active Devices 127
	2.1 Diodes 128
	2.2 Bipolar Transistors 203

2.3 Field-Effect Transistors	239
2.4 Large-Signal Behavior of JFETs	248
2.5 Parameter Extraction of Active Devices	324
3 Amplifier Design with BJTs and FETs	359
3.1 Properties of Amplifiers	359
3.2 Amplifier Gain, Stability, and Matching	423
3.3 Single-Stage Feedback Amplifiers	484
3.4 Two-Stage Amplifiers	490
3.5 Amplifiers with Three or More Stages	499
3.6 A Novel Approach to Voltage-Controlled Tuned Filters Including CAD Validation	505
3.7 Differential Amplifiers	514
3.8 Frequency Doublers	518
3.9 Multistage Amplifiers with Automatic Gain Control (AGC)	524
3.10 Biasing	524
3.11 Push-Pull/Parallel Amplifiers	539
3.12 Power Amplifiers	542
4 Mixer Design	637
4.1 Introduction	637
4.2 Properties of Mixers	640
4.3 Diode Mixers	654
4.4 Transistor Mixers	685
5 RF/Wireless Oscillators	727
5.1 Introduction of Frequency Control	727
5.2 Background	727
5.3 Oscillator Design	728
5.4 Oscillator Circuits	744
5.5 Design of RF Oscillators	746
5.6 Noise in Oscillators	781
5.7 Oscillators in Practice	803
5.8 Phase-Noise Improvements of Integrated RF and Millimeterwave Oscillators	814
6 Wireless Synthesizers	831
6.1 Introduction	831

6.2 Phase-Locked Loops 831

6.3 How to Do a Practical PLL Design Using CAD 859

6.4 Fractional-N-Division PLL Synthesis 864

6.5 Direct Digital Synthesis 871

References 879

Interesting Patents 880

Further Reading 881

Index 883


Ordering:

Order Online - <http://www.researchandmarkets.com/reports/2171327/>

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.



Fax Order Form

To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit

<http://www.researchandmarkets.com/contact/>

Order Information

Please verify that the product information is correct.

Product Name: RF / Microwave Circuit Design for Wireless Applications. 2nd Edition
Web Address: <http://www.researchandmarkets.com/reports/2171327/>
Office Code: SCOZU15N

Product Format

Please select the product format and quantity you require:

Quantity

Hard Copy (Hard Back): ☐ USD 156 + USD 29 Shipping/Handling

* Shipping/Handling is only charged once per order.

Contact Information

Please enter all the information below in **BLOCK CAPITALS**

Title: Mr ☐ Mrs ☐ Dr ☐ Miss ☐ Ms ☐ Prof ☐
First Name: _____ Last Name: _____
Email Address: * _____
Job Title: _____
Organisation: _____
Address: _____
City: _____
Postal / Zip Code: _____
Country: _____
Phone Number: _____
Fax Number: _____

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)

Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

Account number	833 130 83
Sort code	98-53-30
Swift code	ULSBIE2D
IBAN number	IE78ULSB98533083313083
Bank Address	Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: _____

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at <http://www.researchandmarkets.com/info/terms.asp>

Please fax this form to:

(646) 607-1907 or (646) 964-6609 - From USA

+353-1-481-1716 or +353-1-653-1571 - From Rest of World