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Advances in Monolithic Microwave Integrated Circuits for Wireless Systems: Modeling and Design Technologies



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Monolithic Microwave Integrated Circuit (MMIC) is an electronic device that is widely used in all high frequency wireless systems. In developing MMIC as a product, understanding analysis and design techniques, modeling, measurement methodology, and current trends are essential.

Advances in Monolithic Microwave Integrated Circuits for Wireless Systems: Modeling and Design Technologies is a central source of knowledge on MMIC development, containing research on theory, design, and practical approaches to integrated circuit devices. This book is of interest to researchers in industry and academia working in the areas of circuit design, integrated circuits, and RF and microwave, as well as anyone with an interest in monolithic wireless device development.

Topics Covered:

- LNA Invention
- Low Noise Amplifiers
- Millimeter Wave Integrated Circuit (MMWIC)
- Monolithic Microwave Integrated Circuits (MMICs)
- Multi-Standard LNA
- Power-Constrained Noise Optimization
- RC Feedback
- Reconfigurable LNA
- Simultaneous Noise and Input Matching
- WiMAX

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Arjuna Marzuki obtained his B.Eng (Hon) in Electronic (Com) from the Department of Electronic & Electrical Engineering at the University of Sheffield in United Kingdom, MSc from Universiti Sains Malaysia and PhD from Universiti Malaysia Perlis. He co-founded C-RAD Technologies () in year 2005 and remains as technical consultant with the company. Since 2006, Arjuna has joined School of Electrical and Electronic Engineering, Universiti Sains Malaysia as a lecturer. He teaches analog circuit design and integrated circuit design. He is also an associate research fellow with Collaborative μ Electronic Design Excellence Centre (CEDEC), USM. Arjuna has gained professional qualification as professional engineer when he was elected to the Register of The Society of Professional Engineers, SPE(UK) (<http://www.professionalengineers-uk.org>). He is also a corporate member of Institute of Engineering and Technology (IET)- MIET, a fellow of The International Institute of Engineers (IIE), a senior member of International Association of Computer Science & Information Technology (IACSIT). Arjuna has to-date filed 4 international patents and published more than 20 technical papers. He has developed more than 20 commercial products during his employment with Hewlett-Packard/Agilent Technologies and IC Microsystems.



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Section 1: Theory

Chapter 1

Multi-Standard Multi-Band Reconfigurable LNA

Mustaffa Mohd Tafir (Universiti Sains Malaysia, Malaysia)

Chapter 2

LNA Inventions

Noh Norlaili Mohd. (Universiti Sains Malaysia, Malaysia)

Chapter 3

Multiband Multi-Standard LNA with CPW Transmission Line Inductor

Ben Amor M. (University of Sfax, Tunisia)

Loulou M. (University of Sfax, Tunisia)

Quintanel S. (ENSEA University of Cergy Pontoise, France)

Pasquet D. (Microelectronics and Semiconductor Physics Laboratory (LaMIPS), NXP-CRISMAT-ENSICAEN, France)

Chapter 4

Design of Low Noise Amplifiers through Flow-Graphs and their Optimization by the Simulated Annealing Technique

Fakhfakh M. (University of Sfax, Tunisia)

Boughariou M. (University of Sfax, Tunisia)

Sallem A. (University of Sfax, Tunisia)

Loulou M. (University of Sfax, Tunisia)

Chapter 5

Optimization of CMOS Quadrature VCO Using a Graphical Method

Mnif Hassene (University of Sfax, Tunisia)

Mellouli Dorra (University of Sfax, Tunisia)

Loulou Mourad (University of Sfax, Tunisia)

Section 2: Design

Chapter 6

The Design and Modeling of 2.4 and 3.5 GHz MMIC PA

Ang Chin Guek (Universiti Sains Malaysia, Malaysia)

Chapter 7

The Design and Modeling of 2.4 GHz and 3.5 GHz MMIC LNA

Yip Ching Wen (Universiti Sains Malaysia, Malaysia)

Chapter 8

Design of Medium Power Amplifier Using GaAs PHEMT Technology for Wireless Applications

Rasmi Amiza (Telekom Malaysia Research & Development Sdn. Bhd., Malaysia)

Chapter 9

The Design and Modeling of 30 GHz Microwave Front-End

Ng Wan Yeen (Universiti Sains Malaysia, Malaysia)

Ng Xhiang Rhung (Universiti Sains Malaysia, Malaysia)

Section 3: Practical Approaches

Chapter 10

Inventions of Monolithic Microwave Integrated Circuits

Marzuki Arjuna (Universiti Sains Malaysia, Malaysia)

Chapter 11

RF and Microwave Test of MMICs from Qualification to Mass Production

Mabrouk Mohamed (ISETCOM de Tunis and CIRTACOM/SUPCOM, Cité Technologique des Communications, Tunisia)

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