Microwave and Millimeter Wave Circuits and Systems
Emerging Design, Technologies and Applications

This book addresses state-of-the-art technologies for the development of microwave and millimeter wave circuits, systems and their applications. Microwave and Millimeter Wave Circuits and Systems provides a wide spectrum of current trends in the design of microwave and millimeter circuits and systems. In addition, the book identifies the challenges in microwave and millimeter wave circuits/systems design. Examples include: behavioral modeling of circuit components, software radio and digitally enhanced front-ends, new and promising technologies such as substrate-integrated-waveguide (SIW) and wearable electronic systems, emerging applications such as tracking of moving targets using ultra-wideband radar, and new generation satellite navigation systems. Each chapter treats a selected problem and challenge within the field of microwave and millimeter wave circuits, and contains case studies and examples where appropriate.

Key Features:
- Discusses modeling and design strategies for new appealing applications in the domain of microwave and millimeter wave circuits and systems
- Written by experts active in the microwave and millimeter wave frequency range (industry and academia)
- Addresses modeling/design/applications from both a circuit and system perspective
- Covers the latest innovations in the respective fields
- Each chapter contains case studies and examples where appropriate

This book serves as an excellent reference for engineers, researchers, research project managers and engineers working in R&D, professors, and post-graduates studying related courses. It will also be of interest to professionals working in product development and PhD students.
MICROWAVE AND MILLIMETER WAVE CIRCUITS AND SYSTEMS
MICROWAVE AND MILLIMETER WAVE CIRCUITS AND SYSTEMS
EMERGING DESIGN, TECHNOLOGIES, AND APPLICATIONS

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Chapter 6

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Chapter 7

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Chapter 8

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Chapter 9

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Chapter 10

**Roberto Gómez-García** received MSc and PhD degrees in Electrical Engineering from the Technical University of Madrid, in 2001 and 2006, respectively. Currently, he is with the Department of Signal Theory and Communications of the University of Alcalá, Madrid. His research interests are in the pursuit of new concepts to design advanced fixed/reconfigurable-frequency RF filters and multiplexers in planar, hybrid, and MMIC technologies, multifunction circuits, and novel software-defined radio and radar architectures.

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Chapter 11

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Chapter 12

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Chapter 13

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Chapter 14

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**Chapter 15**

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