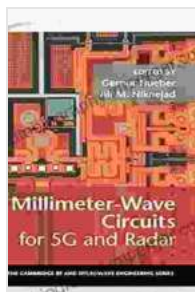


Millimeter Wave Circuits for 5G and Radar: Unlocking the Next Generation of Wireless and Sensing

The advent of 5G and the increasing demand for high-resolution radar systems have propelled millimeter wave (mmWave) technology to the forefront of wireless communications and sensing. Characterized by frequencies ranging from 30 GHz to 300 GHz, mmWave offers unparalleled bandwidth and high data rates, enabling transformative applications in various domains.

The Cambridge RF and Microwave Series

The Cambridge RF and Microwave Series is a renowned collection of books dedicated to advancing knowledge and understanding in the field of radio frequency (RF) and microwave engineering. Millimeter Wave Circuits for 5G and Radar is the latest addition to this prestigious series, providing a comprehensive and up-to-date treatment of mmWave circuit design and applications.



Millimeter-Wave Circuits for 5G and Radar (The Cambridge RF and Microwave Engineering Series)

★★★★☆ 4 out of 5

Language : English
File size : 25226 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 449 pages



Key Features of the Book

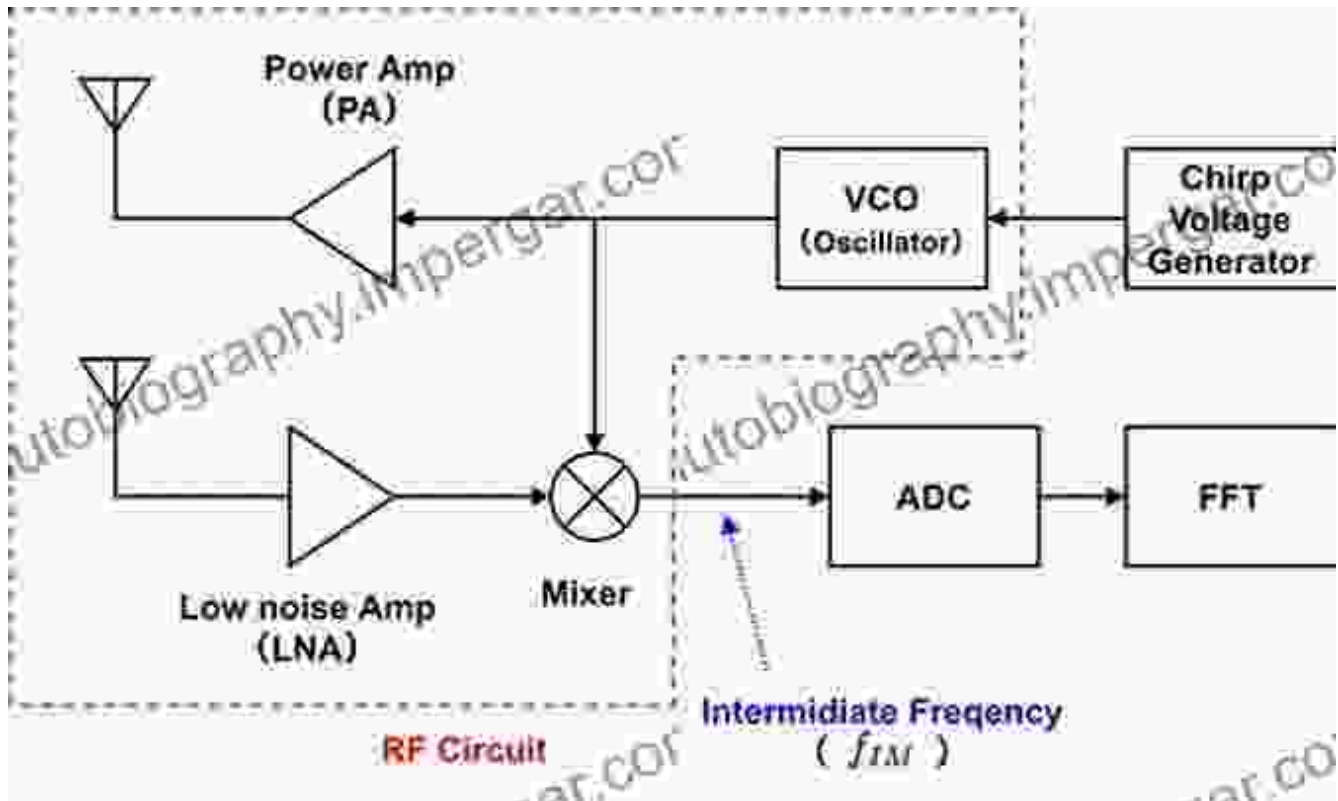
- **In-depth Coverage of MMWave Circuit Fundamentals:** The book delves into the fundamental principles of mmWave circuit design, including transmission lines, antennas, amplifiers, mixers, and oscillators.
- **State-of-the-Art Design Techniques:** Readers gain insights into the latest design techniques for low-noise amplifiers, power amplifiers, and other essential mmWave components.
- **Analysis of 5G and Radar Systems:** The book provides a detailed analysis of mmWave systems used in 5G and radar applications, exploring modulation schemes, waveform design, and beamforming techniques.
- **Practical Design Considerations:** Practical design considerations, such as packaging, thermal management, and electromagnetic compatibility, are thoroughly explored.
- **Comprehensive Examples and Case Studies:** Numerous real-world examples and case studies illustrate the application of mmWave circuits in cutting-edge technologies.

Applications in 5G and Radar

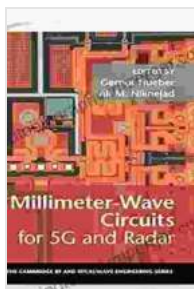
Millimeter Wave Circuits for 5G and Radar empowers readers to harness the power of mmWave technology for revolutionary applications, including:

- **5G Connectivity:** Millimeter wave circuits enable ultra-high data rates, low latency, and increased capacity in 5G networks.
- **Automotive Radar:** MmWave radar systems enable autonomous driving, collision avoidance, and adaptive cruise control.
- **Medical Imaging:** Millimeter waves are used in medical imaging techniques, providing high-resolution images of internal structures.
- **Security and Defense:** MmWave technology finds applications in surveillance, threat detection, and counter-drone systems.

Millimeter Wave Circuits for 5G and Radar is an indispensable resource for engineers, researchers, and students working in the field of wireless communications, radar technology, and RF circuit design. By providing a comprehensive understanding of the latest mmWave circuit techniques, the book empowers readers to push the boundaries of wireless and sensing systems.



Discover the transformative potential of millimeter wave technology and unlock the next generation of wireless and sensing solutions with Millimeter Wave Circuits for 5G and Radar. Free Download your copy today!



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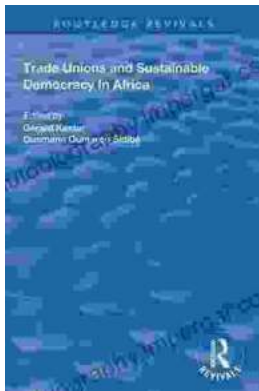
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