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Descrizione fisica	1 online resource (729 p.)
Collana	Wiley series in microwave and optical engineering ; ; 19
Disciplina	621.381/32 621.38132
Soggetti	Microwave circuits - Mathematical models Oscillators, Microwave - Automatic control Oscillators, Microwave - Design and construction System analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- 1. Oscillator Dynamics -- 1.1. Introduction -- 1.2. Operational Principle of Free-Running Oscillators -- 1.3. Impedance-Admittance Analysis of an Oscillator -- 1.4. Frequency-Domain Formulation of an Oscillator Circuit -- 1.5. Oscillator Dynamics -- 1.6. Phase Noise -- 2. Phase Noise -- 2.1. Introduction -- 2.2. Random Variable and random Processes -- 2.3. Noise Sources in Electronic Circuits -- 2.4. Derivation of the Oscillator Noise Spectrum Using Time-Domain Analysis -- 2.5. Frequency-Domain Analysis of a Noisy Oscillator -- 3. Bifurcation Analysis -- 3.1. Introduction -- 3.2. Representation of Solutions -- 3.3. Bifurcations -- 4. Injected Oscillators and Frequency Dividers -- 4.1. Introduction -- 4.2. Injection-Locked Oscillators -- 4.3. Frequency Dividers -- 4.4. Subharmonically and Ultrasubharmonically Injection-Locked Oscillators -- 4.5. Self-Oscillating Mixers -- 5. Nonlinear Circuit Simulation -- 5.1. Introduction -- 5.2. Time-Domain Integration -- 5.3. Fast Time-

Domain Techniques -- 5.4. Harmonic Balance -- 5.5. Harmonic Balance Analysis of Autonomous and Synchronized Circuit -- 5.6. Envelope Transient -- 5.7. Conversion Matrix Approach -- 6. Stability Analysis Using Harmonic Balance -- 6.1. Introduction -- 6.2. Local Stability Analysis -- 6.3. Stability Analysis of Free-Running Oscillators -- 6.4. Solution Curves Versus a Circuit Parameter -- 6.5. Global Stability Analysis -- 6.6. Bifurcation Synthesis and Control -- 7. Noise Analysis Using Harmonic Balance -- 7.1. Introduction -- 7.2. Noise in Semiconductor Devices -- 7.3. Decoupled Analysis of Phase and Amplitude Perturbations in a Harmonic Balance System -- 7.4. Coupled Phase and Amplitude Noise Calculation -- 7.5. Carrier Modulation Approach -- 7.6. Conversion Matrix Approach -- 7.7. Noise in Synchronized Oscillators -- 8. Harmonic Balance Techniques for Oscillator Design -- 8.1. Introduction -- 8.2. Oscillator Synthesis -- 8.3. Design of Voltage-Controlled Oscillators -- 8.4. Maximization of Oscillator Efficiency -- 8.5. Control of Oscillator Transients -- 8.6. Phase Noise Reduction -- 9. Stabilization Techniques for Phase Noise Reduction -- 9.1. Introduction -- 9.2. Self-Injection Topology -- 9.3. Use of High-Q Resonators -- 9.4. Stabilization Loop -- 9.5. Transistor-Based Oscillators -- 10. Coupled-Oscillator Systems -- 10.1. Introduction -- 10.2. Oscillator Systems with Global Coupling -- 10.3. Coupled-Oscillator Systems for Beam Steering -- 11. Simulation Techniques for Frequency-Divider Design -- 11.1. Introduction -- 11.2. Types of frequency dividers -- 11.3. Design of Transistor-Based Regenerative Frequency Dividers -- 11.4. Design of Harmonic Injection Dividers -- 11.5. Extension of the Techniques to Subharmonic Injection Oscillators -- 12. Circuit Stabilization -- 12.1. Introduction -- 12.2. Unstable Class AB Amplifier Using Power Combiners -- 12.3. Unstable Class E/F Amplifier -- 12.4. Unstable Class E Amplifier -- 12.5. Stabilization of Oscillator Circuits -- 12.6. Stabilization of Multifunction MMIC Chips -- Index

Sommario/riassunto

Presents simulation techniques that substantially increase designers' control over the oscillation in autonomous circuits. This book facilitates a sound understanding of the free-running oscillation mechanism, the start-up from the noise level, and the establishment of the steady-state oscillation. It deals with the operation principles and main characteristics of free-running and injection-locked oscillators, coupled oscillators, and parametric frequency dividers. Analysis and Design of Autonomous Microwave Circuits provides: . An exploration of the main nonlinear-analysis methods, with emphasis on harmonic balance and envelope transient methods. Techniques for the efficient simulation of the most common autonomous regimes. A presentation and comparison of the main stability-analysis methods in the frequency domain. A detailed examination of the instabilization mechanisms that delimit the operation bands of autonomous circuits. Coverage of techniques used to eliminate common types of undesired behavior, such as spurious oscillations, hysteresis, and chaos. A thorough presentation of the oscillator phase noise. A comparison of the main methodologies of phase-noise analysis. Techniques for autonomous circuit optimization, based on harmonic balance. A consideration of different design objectives: presetting the oscillation frequency and output power, increasing efficiency, modifying the transient duration, and imposing operation bands. Analysis and Design of Autonomous Microwave Circuits is a valuable resource for microwave designers, oscillator designers, and graduate students in RF microwave design.

2. Record Nr.	UNINA9910970087203321
Autore	Morphet Janice
Titolo	Effective practice in spatial planning // Janice Morphet
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ISBN	1-136-97219-6 1-136-97220-X 1-282-65639-2 9786612656392 0-203-85183-8
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Descrizione fisica	1 online resource (xv, 291 p.) : ill
Collana	The RTPPI library series
Disciplina	307.1/2160942
Soggetti	City planning - England Regional planning - England
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. What is Spatial Planning? -- 2. The Local Governance Context of English Spatial Planning -- 3. The English Spatial Planning System -- 4. The Evidence Base of Spatial Planning -- 5. Community Involvement in Spatial Planning -- 6. Making Places - Delivery Through Spatial Planning -- 7. Taking an Integrated Approach to Local Spatial Delivery -- 8. Managing Spatial Planning -- 9. Regional and Sub-regional Spatial Planning -- 10. Spatial Planning in Scotland, Wales and Northern Ireland -- 11. Spatial Planning in Europe, North America and Australia -- 12. Effective Spatial Planning.
Sommario/riassunto	After years of being regarded as a regulatory tool, spatial planning is now a key agent in delivering better places for the future. Dealing with the role of spatial planning in major change such as urban extensions or redevelopment, this book asks how it can deliver at the local level. Setting out the new local governance within which spatial planning now operates and identifying the requirements of successful delivery, this book also provides an introduction to project management approaches to spatial planning. It details what the rules are for spatial planning, the role of evidence and public involvement in delivering the local vision and how this works as part of coherent and consistent sub-regional

approach. The conclusion is a forward look at what is likely to follow the effective creation of inspiring and successful places using spatial planning as a key tool.
