1. Record Nr. UNISALENTO991003382539707536

Autore	Purkis, John
Titolo	A preface to Wordsworth / John Purkis
Pubbl/distr/stampa	London : Longman, 1970
Descrizione fisica	208 p. ; 21 cm
Collana	Preface books
Soggetti	Wordsworth, William Wordsworth, William
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910816140603321

Autore	Kerherve Eric
Titolo	Linearization and efficiency enhancement techniques for silicon power amplifiers : from RF to mmW / / Eric Kerherve, Didier Belot
Pubbl/distr/stampa	Oxford, England : , : Academic Press, , 2015 ©2015
ISBN	0-12-418681-5
Descrizione fisica	1 online resource (163 p.)
Disciplina	621.381325
Soggetti	Power amplifiers Amplifiers, Radio frequency
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.
Nota di contenuto	Front Cover; Linearization and Efficiency Enhancement Techniques for Silicon Power Amplifiers; Copyright Page; Contents; List of Contributors; 1 Holistic Approaches for Power Generation, Linearization, and Radiation in CMOS; 1.1 Self-Healing Integrated

Circuits; 1.1.1 Self-Healing mm-Wave Power Amplifier; 1.1.2 Sensing RF Power; 1.1.3 Sensing DC Current; 1.1.4 Actuating Quiescent Operating Point; 1.1.5 Data Conversion and Healing Algorithm; 1.1.6 Measurement Results; 1.2 Segmented Power Mixer for mm-Wave Transmitters; 1.2.1 Key Building Blocks; 1.2.2 Measurement Results
1.3 Distributed Active Radiation1.3.1 DAR Design Approach; 1.3.2 Architecture; 1.3.3 Measurement Results; References; 2 Cartesian Feedback with Digital Enhancement for CMOS RF Transmitter; 2.1 Introduction; 2.2 CFB Loop; 2.3 CFB Digital Part Implementation; 2.3.1 Phase Estimation; 2.3.1.1 "atan"-Based Architecture; 2.3.1.1.1 LUT-Based Architecture; 2.3.1.1.2 CORDIC-Based Architecture; 2.3.1.2 "Modulo" Function Implementation; 2.3.2 Vector Rotation; 2.3.2.1 LUT and Multipliers Solution; 2.3.2.2 CORDIC-Based Solution; 2.3.3 Subtraction; 2.3.4 Improvement of CFB CORDIC-Based Architecture
2.3.4.1 Modification of the CFB Algorithm2.3.4.2 New Architecture; 2.4 Analog Part Implementation; 2.5 Linearized Transmitter Results; 2.6 Power Consumption and Size Considerations; 2.7 Conclusion; References; 3 Transmitter Linearity and Energy Efficiency; 3.1 Introduction; 3.2 The PA Design Problem; 3.3 A Reverse Design Approach; 3.3.1 PA Operating Modes; 3.3.2 What Does "Gain" Mean When Nonlinear?; 3.3.3 Apparent Linearity: Output Signal Accuracy; 3.3.4 Stage Series Resistance; 3.4 Output Power Control; 3.5 OBO Elimination; 3.6 Stabilities: Circuit, Thermal, and Manufacturing
3.6.1 Stability of the Circuit3.6.2 Stability Over Temperature; 3.6.3 Stability Across Manufacturing; 3.7 Aging; 3.8 Categorizing C-mode Operation; 3.9 Conclusion; References; 4 mmW Doherty; 4.1 Introduction; 4.2 Doherty Amplifier; 4.2.1 Doherty Structure; 4.2.2 Nonidealities in Doherty Structure; 4.3 mmW Doherty Amplifiers; 4.3.1 Silicon Transistors in mmW Doherty Structure; 4.3.2 Passive Components in mmW Doherty Structure; 4.3.3 Other Techniques; References; 5 Reliable Power Amplifier; 5.1 Introduction; 5.2 Effect of CMOS Technology Scaling on Thermal Management
5.3 Metal Interconnects Electromigration5.4 Time-Dependent Dielectric Breakdown (TDDB); 5.5 Hot Carrier Injection; 5.5.1 DC Model; 5.5.2 RF Model; 5.6 Electrostatic Static Discharge; 5.6.1 Human Body Model; 5.6.2 Machine Model; 5.6.3 Charged Device Model; 5.6.4 ESD Protection; 5.7 Voltage Standing Wave Ratio; 5.8 Power Amplifier Design for Reliability; 5.8.1 Mission Profile Analysis; 5.9 Intrinsically Robust Design; 5.10 Self-Healing Design; 5.11 Conclusion; References; 6 Efficiency Enhancement for THz Power Amplifier; 6.1 Introduction
6.2 Power Amplifier Performance Trade-offs Toward THz Operation

Sommario/riassunto

Learn how to design and linearize high performance silicon power amplifiers, improving efficiency and solving problems and trade-offs of power amplifier design