Adaptive Low-power Circuits For Wireless Communications

DOWNLOAD HERE

FOREWORD. OUTLINE. LIST OF ABBREVIATIONS.- 1 INTRODUCTION. 1.1 Why Silicon? 1.2 Why Wireless and RF? 1.3 Why Low-Power and Adaptive RF? 1.4 Why Multistandard and Adaptive RF? 1.5 Adaptivity Objectives. References. - 2 PERFORMANCE PARAMETERS OF RF CIRCUITS. 2.1 Gain Parameters. 2.2 Nonlinearity Parameters. 2.3 Noise Figure. 2.4 Phase Noise. 2.5 Dynamic Range. 2.6 RF Front-End Performance Parameters. 2.7 Conclusions. References.- 3 SPECTRUM-SIGNAL TRANSFORMATION. 3.1 Transceiver Architectures. 3.2 Signal and Spectral Transformations. 3.3 Mixer-Oscillator Models. 3.4 Image-Rejection Ratio Model. 3.5 IRR Model of Double-Quadrature Downconverters. 3.6 Conclusions. References.- 4 SELECTION OF PERFORMANCE PARAMETERS FOR RECEIVER CIRCUITS. 4.1 System Considerations. 4.2 Independent Selection of NF And IIP3 Specifications. 4.3 Mutually Dependent Selection of NF And IIP3 Specifications. 4.4 Equilibrium, Optimality and Equality Criteria. 4.5 Notes on Power Consumption. 4.6 Performance Trade-offs in an RF Circuit. 4.7 Conclusions. References. - 5 ADAPTIVITY OF LOW-NOISE AMPLIFIERS. 5.1 Adaptivity Phenomena of Amplifiers. 5.2 Performance Parameters of Inductively-Degenerated Low-Noise Amplifiers. 5.3 Adaptivity Models of Low-Noise Amplifiers 5.4 Conclusions. References.- 6 ADAPTIVE VOLTAGE-CONTROLLED OSCILLATORS. 6.1 Adaptivity Phenomena of Oscillators. 6.2 An Adaptive Voltage-Controlled Oscillator. 6.3 Phase-Noise Model of LC Voltage-Controlled Oscillators. 6.4 Phase-Noise Performance of Quasi-Tapped Voltage-Controlled Oscillators. 6.5 Adaptivity Figures of Merit of Voltage-Controlled Oscillators. 6.6 K-rail Diagrams Comprehensive Performance Characterization of Voltage-Controlled Oscillators. 6.7 Oscillator Design Problem. 6.8 Conclusions. References. - 7 DESIGN OF ADAPTIVE VOLTAGE-CONTROLLED OSCILLATORS AND ADAPTIVE RF FRONT-ENDS. 7.1 An Adaptive Low-Power Voltage-Controlled Oscillator. 7.2 A Multistandard Adaptive Voltage-Controlled Oscillator. 7.3 Multistandard Adaptive RF Front-Ends. 7.4 Conclusions. References. - A Real-to-Complex-to-Real Transformation.- B Transformer-Feedback Degeneration of Low-Noise Amplifiers. - INDEX. EAN/ISBN : 9781402052507 Publisher(s): Springer Netherlands Format: ePub/PDF

Author(s): Tasic, Aleksandar - Serdijn, Wouter A. - Long, John R.

DOWNLOAD HERE

Similar manuals: