Linearization and Efficiency Enhancement Techniques for Silicon Power Amplifiers: From RF to mmW

From Eric Kerherve
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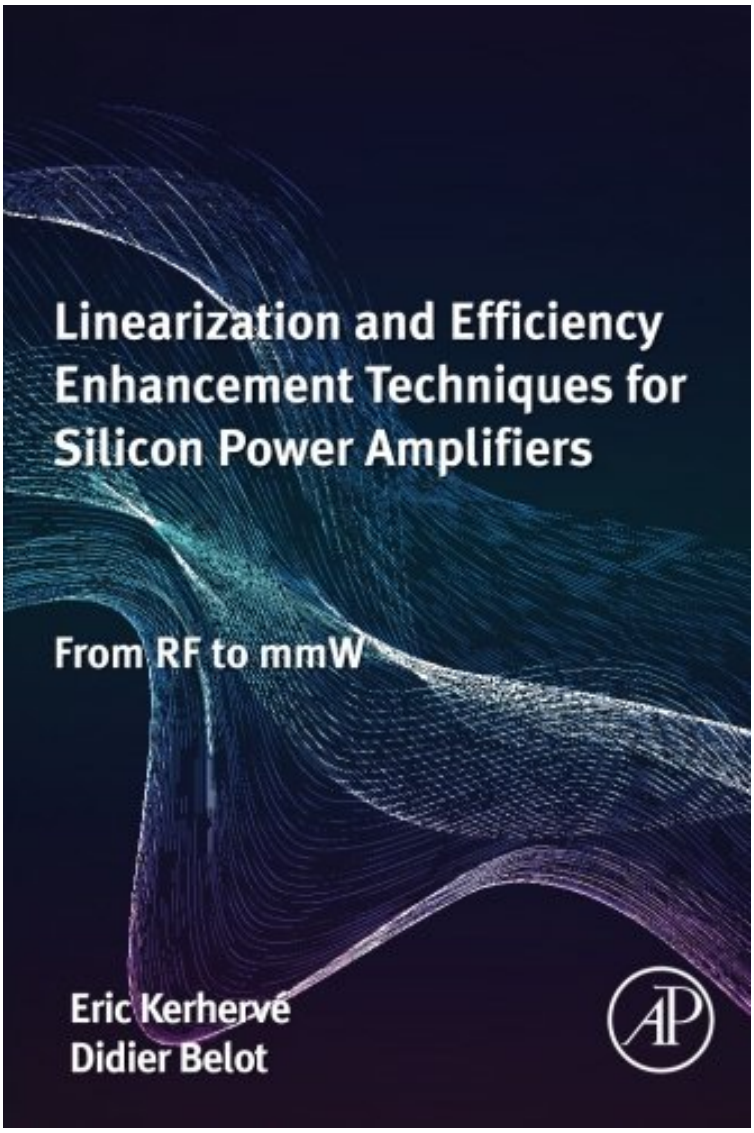

#1994741 in Books Eric Kerherve 2015-01-22 2015-01-08Original language:EnglishPDF # 1 9.00 x .37 x 6.00l, .0 #File Name: 0124186785162 pagesLinearization and Efficiency Enhancement Techniques for Silicon Power Amplifiers | File size: 18.Mb

From Eric Kerherve : Linearization and Efficiency Enhancement Techniques for Silicon Power Amplifiers: From RF to mmW before purchasing it in order to gage whether or not it would be worth my time, and all praised

Linearization and Efficiency Enhancement Techniques for Silicon Power Amplifiers: From RF to mmW:

This book provides an overview of current efficiency enhancement and linearization techniques for silicon power amplifier designs. It examines the latest state of the art technologies and design techniques to address challenges for RF cellular mobile, base stations, and RF and mmW WLAN applications. Coverage includes material on current silicon (CMOS, SiGe) RF and mmW power amplifier designs, focusing on advantages and disadvantages compared with traditional GaAs implementations. With this book you will learn: The principles of linearization and efficiency improvement techniquesThe architectures allowing the optimum design of multimode Si RF and mmW power amplifiersHow to make designs more efficient by employing new design techniques such as linearization and efficiency improvementLayout considerationsExamples of schematic, layout, simulation and measurement resultsAddresses the problems of high power generation, faithful construction of non-constant envelope constellations, and efficient and well control power radiation from integrated silicon chipsDemonstrates how silicon technology can solve problems and trade-offs of power amplifier design, including price, size, complexity and efficiencyWritten and edited by the top contributors to the field

From the Back CoverThis book provides an overview of current efficiency enhancement and linearization techniques for silicon power amplifier designs. It examines the latest state of the art technologies and design techniques to address challenges for RF cellular mobile, base stations, and RF and mmW WLAN applications. Coverage includes material on current silicon (CMOS, SiGe) RF and mmW power amplifier designs, focusing on advantages and disadvantages compared with traditional GaAs implementations. Key features include: Addresses the problems of high power generation, faithful construction of non-constant envelope constellations, and control power radiation from integrated silicon chips Demonstrates how silicon technology can solve problems and trade-offs of power amplifier design, including price, size, complexity and efficiency Written and edited by the top contributors to the field With this book you will learn: The principles of linearization and efficiency improvement techniques The architectures allowing the optimum design of multimode Si RF and mmW power amplifiers How to make designs more efficient by employing new design techniques such as linearization and efficiency improvement Layout considerations Examples of schematic, layout, simulation and measurement results. About the AuthorEric Kerherv received the Ph.D. degree in Electrical Engineering from University of Bordeaux, France in 1994. He joined the Polytechnic Institute of Bordeaux and the IMS Laboratory in 1996, where he is currently Full Professor in Microelectronics and Microwave applications. He has been the head of Microwave Circuits and Systems team at IMS since 1998. His main areas of research are the design of RF, microwave and millimeter-wave circuits (power amplifiers and filters) in silicon GaAs and GaN technologies.He is involved in several European projects (Medea+ UPPERMOST, Medea+ QSTREAM, Catrene PANAMA, FP6 MOBILIS, ENIAC MIRANDELA), to develop silicon RF/mmW power amplifiers and BAW duplexer. Eric has authored and co-authored more than 200 technical papers in this field, and has been awarded 24 patents. He has organized 8 RFIC and EuMC workshops on advanced silicon technologies for radiofrequency and millimeter-wave applications, and he is involved in the technical program committees of various international conferences (ICECS, IMOC, NEWCAS, EuMIC, SBCCI, LASCAS) and he was the co-chair of the international IEEE ICECS 2006 and IEEE NEWCAS 2011 conferences. He was the associate editor of IEEE Transactions on Circuits and Systems II (TCAS II) for two years and is a senior member of the IEEE and a member of the IEEE-CAS, IEEE-MTT and IEEE SSCS societies, and has been involved in the NPTO (Navigation Positioning Telecom and Observation) Strategic Business Sectors within the "Aerospace Valley" World Competitiveness Cluster since 2010.