1. Record Nr. UNINA9910820080503321 Autore Wang Zhancang Titolo **Envelope Tracking Power Amplifiers for Wireless Communications** Pubbl/distr/stampa Norwood:,: Artech House,, 2014 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2014] **ISBN** 1-60807-785-3 Descrizione fisica 1 online resource (363 p.) Collana The Artech House microwave library Disciplina 621.38413 Soggetti Power amplifiers Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Envelope Tracking Power Amplifiers for Wireless Communications: Contents; Preface; Acknowledgments; CHAPTER 1 High-Efficiency --Power -- Amplifier -- Architectures and Devices: 1.1 Efficiency Definitions for RF PA: 1.2 Characteristics of Modern Modulated Signals; 1.2.1 Crest Factor; 1.2.2 Probability Density Function; 1.2.3 Second Generation Signal; 1.2.4 Third Generation Signal; 1.2.5 Fourth Generation Signal: 1.3 Architectures for High-Efficiency PA: 1.3.1 Switch Mode PA; 1.3.2 Waveform-Engineered PA; 1.3.3 Doherty; 1.3.4 LINC and Outphasing; 1.3.5 Envelope Elimination and Restoration. 1.3.6 Envelope Tracking 1.4 Device Technologies for High-Efficiency PA: 1.4.1 GaAs HBT; 1.4.2 CMOS; 1.4.3 Si-LDMOS; 1.4.4 GaN HEMT; References; CHAPTER 2 Envelope -- Tracking -- Power -- Amplifier --Basics; 2.1 Introduction; 2.1.1 Motivation for ET; 2.1.2 ET Pyramid; 2.2 Principle of ET; 2.2.1 Signal Definition; 2.2.2 ET Efficiency; 2.2.3 Design Cons. Sommario/riassunto Envelope tracking technology is seen as the most promising efficiency enhancement technology for RF power amplifiers for 4G and beyond wireless communications. More and more organizations are investing and researching on this topic with huge potential in academic and commercial areas. This is the first book on the market to offer complete introduction, theory, and design considerations on envelope tracking for wireless communications. This resource presents you with

a full introduction to the subject and covers underlying theory and

practical design considerations.