1. Record Nr. UNINA9910133222603321 Autore Grebennikov Andrei <1956-> Titolo RF and microwave transmitter design [[electronic resource] /] / Andrei Grebennikov Hoboken, N.J., : Wiley, c2011 Pubbl/distr/stampa **ISBN** 1-283-27288-1 9786613272881 0-470-92930-8 0-470-92929-4 Edizione [1st edition] Descrizione fisica 1 online resource (838 p.) Collana Wiley series in microwave and optical engineering Classificazione TEC024000 Disciplina 621.384/131 621.384131 Soggetti Radio - Transmitters and transmission Microwave circuits Microwave transmission lines Electronic books. 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 RF AND MICROWAVETRANSMITTER DESIGN: Contents: Preface: Introduction; References; 1 Passive Elements and Circuit Theory; 1.1 Immittance Two-Port Network Parameters; 1.2 Scattering Parameters; 1.3 Interconnections of Two-Port Networks: 1.4 Practical Two-Port Networks; 1.4.1 Single-Element Networks; 1.4.2 - and T -Type Networks; 1.5 Three-Port Network with Common Terminal; 1.6 Lumped Elements; 1.6.1 Inductors; 1.6.2 Capacitors; 1.7 Transmission Line; 1.8 Types of Transmission Lines; 1.8.1 Coaxial Line; 1.8.2 Stripline; 1.8.3 Microstrip Line; 1.8.4 Slotline; 1.8.5 Coplanar Waveguide; 1.9 Noise 1.9.1 Noise Sources1.9.2 Noise Figure; 1.9.3 Flicker Noise; References; 2 Active Devices and Modeling; 2.1 Diodes; 2.1.1 Operation Principle; 2.1.2 Schottky Diodes; 2.1.3 p-i-n Diodes; 2.1.4 Zener Diodes; 2.2 Varactors; 2.2.1 Varactor Modeling; 2.2.2 MOS Varactor; 2.3 MOSFETs; 2.3.1 Small-Signal Equivalent Circuit; 2.3.2 Nonlinear I-V Models; 2.3.3

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## Sommario/riassunto

RF and Microwave Transmitter Design is unique in its coverage of both historical transmitter design and cutting edge technologies. This text explores the results of well-known and new theoretical analyses, while informing readers of modern radio transmitters' practical designs and their components. Jam-packed with information, this book broadcasts and streamlines the author's considerable experience in RF and microwave design and development.