1. Record Nr. UNINA9910366582503321 Autore Yuan Fei Titolo Injection-Locking in Mixed-Mode Signal Processing / / by Fei Yuan Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 3-030-17364-X **ISBN** Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (238 pages) Disciplina 621.3815 621.39732 Soggetti Electronic circuits Signal processing Image processing Speech processing systems **Electronics** Microelectronics Circuits and Systems Signal, Image and Speech Processing Electronics and Microelectronics, Instrumentation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. Injection-Locking of Oscillators: An Overview -- Chapter 2. Injection-Locking of Harmonic Oscillators -- Chapter 3. Injection-Locking Techniques for Harmonic Oscillators -- Chapter 4. Injection-Locking of Nonharmonic Oscillators -- Chapter 5. Injection-Locking Techniques for Nonharmonic Oscillators. This book provides readers with a comprehensive treatment of the Sommario/riassunto principles, circuit design techniques, and applications of injectionlocking in mixed-mode signal processing, with an emphasis on CMOS implementation. Major topics include: An overview of injection-locking, the principle of injection-locking in harmonic and non-harmonic oscillators, lock range enhancement techniques for harmonic oscillators, lock range enhancement techniques for non-harmonic

oscillators, and the emerging applications of injection-locking in

mixed-mode signal processing. Provides a single-source reference to the principles, circuit design techniques, and applications of injection-locking in mixed-mode signal processing; Includes a rich collection of design techniques for increasing the lock range of oscillators under injection, along with in-depth examination of the pros and cons of these methods; Enables a broad range of applications, such as passive wireless microsystems, forwarded-clock parallel data links, frequency synthesizers for wireless and wireline communications, and low phase noise phase-locked loops.