

1. Record Nr.	UNINA9910829927603321
Autore	Gardner Floyd Martin <1929->
Titolo	Phaselock techniques [[electronic resource] /] / Floyd M. Gardner
Pubbl/distr/stampa	Hoboken, NJ, : John Wiley, 2005
ISBN	1-280-27731-9 9786610277315 0-471-73269-9 0-471-73268-0
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (449 p.)
Disciplina	621.3815/364 621.3815364
Soggetti	Phase-locked loops
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	PHASELOCK TECHNIQUES; CONTENTS; PREFACE; NOTATION; 1 INTRODUCTION; 1.1 Salient Properties of PLLs; 1.1.1 Bandwidth; 1.1.2 Linearity; 1.2 Organization of the Book; 1.3 Annotated Bibliography; 1.3.1 Books; 1.3.2 Reprint Volumes; 1.3.3 Journal Special Issues; 2 TRANSFER FUNCTIONS OF ANALOG PLLs; 2.1 Basic Transfer Functions; 2.1.1 Transfer Functions of Individual Elements; 2.1.2 Combined Transfer Functions; 2.1.3 Characteristic Equation; 2.1.4 Nomenclature, Coefficients, and Units; 2.2 Second-Order PLLs; 2.2.1 Loop Filters; 2.2.2 Order and Type; 2.2.3 Loop Parameters; 2.2.4 Frequency Response 2.3 Other Loop Types and Orders 2.3.1 General Definition of Loop Gain K; 2.3.2 Examples of Type 1 PLLs; 2.3.3 Examples of Type 2 PLLs; 2.3.4 Higher-Type PLLs; Reference; 3 GRAPHICAL AIDS; 3.1 Root-Locus Plots; 3.1.1 Description of Root-Locus Plots; 3.1.2 Stability Criterion; 3.1.3 Root Loci of Type 1 PLLs; 3.1.4 Root Loci of Type 2 PLLs; 3.1.5 Root Loci of Type 3 PLLs; 3.1.6 Root Loci of Higher-Order PLLs; 3.1.7 Effect of Loop Delay on Root Locus; 3.2 Bode Plots; 3.2.1 Presentation Options; 3.2.2 Stability; 3.2.3 Bode Plots of Type 1 PLLs; 3.2.4 Bode Plots of Type 2 PLLs 3.2.5 Bode Plots of Type 3 PLLs 3.3 Nyquist Diagrams; 3.4 Nichols

Charts; 3.4.1 Stability Criterion; 3.4.2 M-Contours; 3.4.3 Examples of Nichols Charts; 3.5 Closed-Loop Frequency-Response Curves; Appendix 3A: Salient Features of Root Loci; 3A.1 Branches of Root Loci; 3A.2 Locus on the Real Axis; 3A.3 Locus Intersections with Axes; Appendix 3B: Formats of the Open-Loop Transfer Function $G(s)$; 3B.1 Proportional-Plus-Integral Section; 3B.2 High-Frequency Section; 3B.3 Calculations; Appendix 3C: Closed-Loop Frequency Responses; 3C.1 Frequency-Response Formulas
3C.2 Example Frequency-Response GraphsReferences; 4 DIGITAL PLLs: TRANSFER FUNCTIONS AND RELATED TOOLS; 4.1 Distinctive Properties of Digital PLLs; 4.2 Digital Transfer Function; 4.2.1 Configuration of a Digital PLL; 4.2.2 Difference Equations; 4.2.3 z-Transforms of the Loop Elements; 4.2.4 Loop Filter; 4.2.5 Loop Transfer Functions; 4.2.6 Poles and Zeros; 4.3 Loop Stability; 4.3.1 Type 1 DPLLs; 4.3.2 Type 2 DPLLs; 4.3.3 Type 3 DPLLs; 4.4 Root-Locus Plots; 4.4.1 Root Loci of Type 1 DPLLs; 4.4.2 Root Loci of Type 2 DPLLs; 4.4.3 Root Loci of Type 3 DPLLs
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5.1.1 Steady-State Phase Errors

Sommario/riassunto

A greatly revised and expanded account of phaselock technologyThe Third Edition of this landmark book presents new developments in the field of phaselock loops, some of which have never been published until now. Established concepts are reviewed critically and recommendations are offered for improved formulations. The work reflects the author's own research and many years of hands-on experience with phaselock loops.Reflecting the myriad of phaselock loops that are now found in electronic devices such as televisions, computers, radios, and cell phones, the book offers readers mu
