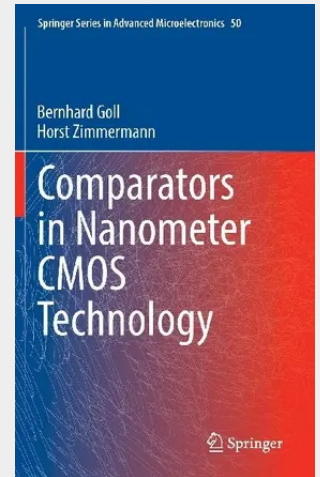


Comparators in Nanometer CMOS Technology

This book covers the complete spectrum of the fundamentals of clocked, regenerative comparators, their state-of-the-art, advanced CMOS technologies, innovative comparators inclusive circuit aspects, their characterization and properties. Starting from the basics of comparators and the transistor characteristics in nanometer CMOS, seven high-performance comparators developed by the authors in 120nm and 65nm CMOS are described extensively. Methods and measurement circuits for the characterization of advanced comparators are introduced. A synthesis of the largely differing aspects of demands on modern comparators and the properties of devices being available in nanometer CMOS, which are posed by the so-called nanometer hell of physics, is accomplished. The book summarizes the state of the art in integrated comparators. Advanced measurement circuits for characterization will be introduced as well as the method of characterization by bit-error analysis usually being used for characterization of optical receivers. The book is compact, and the graphical quality of the illustrations is outstanding. This book is written for engineers and researchers in industry as well as scientists and Ph.D students at universities. It is also recommendable to graduate students specializing on nanoelectronics and microelectronics or circuit design.

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106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783662444818
Medium: Buch
ISBN: 978-3-662-44481-8
Verlag: Springer
Erscheinungstermin: 25.09.2014
Sprache(n): Englisch
Auflage: Erscheinungsjahr 2014
Serie: Springer Series in Advanced Microelectronics
Produktform: Gebunden
Gewicht: 5207 g
Seiten: 250
Format (B x H): 160 x 241 mm

