

1. Record Nr.	UNINA9910153302703321
Autore	Fan Qinwen
Titolo	Capacitively-Coupled Chopper Amplifiers // by Qinwen Fan, Kofi A. A. Makinwa, Johan H. Huijsing
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-47391-3
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (VIII, 125 p. 107 illus., 15 illus. in color.)
Collana	Analog Circuits and Signal Processing, , 1872-082X
Disciplina	621.3815
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 bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- The Chopping Technique -- Capacitively-coupled Chopper Amplifiers -- Choppers for High Input Common-mode Voltages -- Capacitively-Coupled Chopper Operational Amplifiers -- Capacitively-Coupled Chopper Instrumentation Amplifiers for High-Side Current Sensing -- Capacitively-Coupled Chopper Instrumentation Amplifiers for Low-Voltage Applications -- Conclusions.
Sommario/riassunto	This book describes the concept and design of the capacitively-coupled chopper technique, which can be used in precision analog amplifiers. Readers will learn to design power-efficient amplifiers employing this technique, which can be powered by regular low supply voltage such as 2V and possibly having a +\-100V input common-mode voltage input. The authors provide both basic design concepts and detailed design examples, which cover the area of both operational and instrumentation amplifiers for multiple applications, particularly in

power management and biomedical circuit designs. Discusses basic working principles and details of implementation for proven designs; Includes a diverse set of applications, along with measurement results to demonstrate the effectiveness of the technique; Explains advantages and drawbacks of the technique, given particular circumstances.
