

1. Record Nr.	UNINA9910800173803321
Autore	Ang Simon
Titolo	Power-Switching Converters, Third Edition // Simon Ang, Alejandro Oliva
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, , 2010
ISBN	0-429-25213-7 1-4398-9115-X
Edizione	[Third edition.]
Descrizione fisica	1 online resource (xxxiv, 619 pages) : illustrations
Disciplina	621.31/3
Soggetti	Power electronics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (pages 599-611) and index.
Nota di contenuto	chapter 1 Introduction to Switching Converters -- chapter 2 Basic Switching Converter Topologies -- chapter 3 Resonant Converters -- chapter 4 Isolated Switching Converters -- chapter 5 Control Schemes of Switching Converters -- chapter 6 Continuous-Time Modeling of Switching Converters -- chapter 7 Analog Control of Switching Converters -- chapter 8 Discrete-Time Modeling of Switching Converters -- chapter 9 Digital Control of Switching Converters -- chapter 10 Interleaved Converters -- chapter 11 Switched Capacitor Converters -- chapter 12 Simulation of Switching Converters -- chapter 13 Applications of Switching Converters -- chapter 14 Switching Converter Design Case Studies.
Sommario/riassunto	"Significantly expanded and updated with extensive revisions, new material, and a new chapter on emerging applications of switching converters, Power-Switching Converters, Third Edition offers the same trusted, accessible, and comprehensive information as its bestselling predecessors. Similar to the two previous editions, this book can be used for an introductory as well as a more advanced course. Chapters begin with an introduction to switching converters and basic switching converter topologies. Entry level chapters continue with a discussion of resonant converters, isolated switching converters, and the control schemes of switching converters. Skipping to chapters 10 and 11, the subject matter involves an examination of interleaved converters and switched capacitor converters to round out and complete the overview

of switching converter topologies. More detailed chapters include the continuous time-modeling and discrete-time modeling of switching converters as well as analog control and digital control. Advanced material covers tools for the simulation of switching converters (including both PSpice and Matlab simulations) and the basic concepts necessary to understand various actual and emerging applications for switching converters, such as power factor correction, LED drivers, low-noise converters, and switching converters topologies for solar and fuel cells. The final chapter contains several complete design examples, including experimental designs that may be used as technical references or for class laboratory projects. Supplementary information is available at crcpress.com including slides, PSpice examples (designed to run on the OrCAD 9.2 student version and PSIM software) and MATLAB scripts. Continuing the august tradition of its predecessors, Power-Switching Converters, Third Edition provides introductory and advanced information on all aspects of power switching converters to give students the solid foundation and applicable knowledge required to advance in this growing field."--Provided by publisher.
