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	Autore	Winder Steve
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	Descrizione fisica	1 online resource (322 pages)
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Introduction -- Characteristics of LEDs -- Driving LEDs -- Linear power supplies -- Buck-based LED drivers -- Boost converters -- Boost-buck converter -- Nonisolated power factor correction circuits -- Fly-back converters and isolated PFC circuits -- Essentials of switching power supplies -- Selecting components for LED drivers -- Magnetic materials for inductors and transformers -- EMI and EMC issues -- Thermal considerations -- Safety issues -- Control systems -- Applications.
	Sommario/riassunto	Power Supplies for LED Driving, Second Edition explores the wide use of light-emitting diodes due to their efficient use of power. The applications for power LEDs include traffic lights, street lamps, automotive lighting, architectural lights, theatre lighting, household light replacements, signage lighting (replacing neon strip lights and fluorescent tubes), LCD display backlighting, and many more. Powering (driving) these LED's is not always simple. Linear driving is inefficient and generates far too much heat. With a switching supply, the main issues are EMI, efficiency, and of course cost. This book covers the design trade-offs involved in LED driving applications, from low-power, to UB-LEDs and beyond. Provides a practical, hands-on approach to power supply design for LED drivers Contains detailed examples of what works throughout the design process Presents commentary on how the calculated component value compares with the actual value used, including a description of why the choice was made