1. Record Nr. UNINA9911019229803321

Autore	Lidow Alex
Titolo	GaN Power Devices for Efficient Power Conversion
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2025
ISBN	9781394286973 139428697X 9781394286966 1394286961 9781394286980 1394286988
Edizione	[4th ed.]
Descrizione fisica	1 online resource (499 pages)
Altri autori (Persone)	De RooijMichael GlaserJohn (Electrical engineer) PozoAlejandro ZhangShengke PalmaMarco ReuschDavid StrydomJohan
Disciplina	621.3815/284
Soggetti	Field-effect transistors Power transistors Gallium nitride
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	An up-to-date and concise review of GaN transistor design and applications In the newly revised fourth edition of GaN Power Devices for Efficient Power Conversion, a team of distinguished researchers and practicing engineers deliver a concise and effective new guide to designing small, energy-efficient, and inexpensive products with GaN transistors. This new edition covers all relevant new GaN technology advancements, allowing students and practicing engineers to get, and

stay ahead of, the curve with GaN device and circuit technology. You'll explore applications including DC to DC converters, solar inverters, motor drive controllers, satellite electronics, and LiDAR devices. The 4th edition offers critical updates for space applications, vertical GaN, and driving transistors and integrated circuits. New chapters on reliability testing advancements, device wear out mechanisms, thermal management, and the latest developments in monolithic integration round out the book. Readers will also find: * The latest updates on significant technology improvements, like integrated circuits, reliability studies, and new applications * Comprehensive explorations of integrated circuit construction, characteristics, reliability results, and applications * Practical discussions of specific circuit designs, layout, and thermal dissipation when designing power conversion systems * Chapters written by practicing expert leaders in the power semiconductor field and industry pioneers Perfect for practicing power conversion engineers, GaN Power Devices for Efficient Power Conversion will also benefit electrical engineering students and device scientists in the field of power electronics.