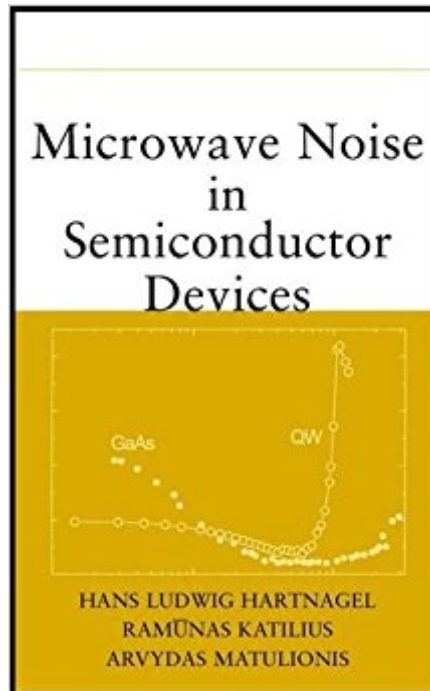


The book was found

Microwave Noise In Semiconductor Devices



Synopsis

A thorough reference work bridging the gap between contemporary and traditional approaches to noise problems Noise in semiconductor devices refers to any unwanted signal or disturbance in the device that degrades performance. In semiconductor devices, noise is attributed to hot-electron effects. Current advances in information technology have led to the development of ultrafast devices that are required to provide low-noise, high-speed performance. Microwave Noise in Semiconductor Devices considers available data on the speed versus noise trade-off and discusses optimal solutions in semiconductors and semiconductor structures. These solutions are of direct interest in the research and development for fast, efficient, and reliable communications systems. As the only book of its kind accessible to practicing engineers, the material is divided into four parts-the kinetic theory of fluctuations and its corollaries, the methods of measurements of microwave noise, low-dimensional structures, and, finally, devices. With over 100 illustrations presenting recent experimental data for up-to-date semiconductor structures designed for ultrafast electronics, together with results of microscopic simulation where available, these examples, tables, and references offer a full comprehension of electronic processes and fluctuation in dimensionally quantizing structures. Bridging the apparent gap between the microscopic approach and the equivalent circuit approach, Microwave Noise in Semiconductor Devices considers microwave fluctuation phenomena and noise in terms of ultrafast kinetic processes specific to modern quantum-well structures. Scientists in materials science, semiconductor and solid-state physics, electronic engineers, and graduate students will all appreciate this indispensable review of contemporary and future microwave and high-speed electronics.

Book Information

Hardcover: 312 pages

Publisher: Wiley-Interscience; 1 edition (January 2, 2001)

Language: English

ISBN-10: 0471384321

ISBN-13: 978-0471384328

Product Dimensions: 6.4 x 0.8 x 9.7 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars 1 customer review

Best Sellers Rank: #3,630,980 in Books (See Top 100 in Books) #89 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Solid State #568 in Books

> Engineering & Transportation > Engineering > Telecommunications & Sensors > Microwaves
#662 in Books > Engineering & Transportation > Engineering > Electrical & Electronics >
Electronics > Semiconductors

Customer Reviews

A thorough reference work bridging the gap between contemporary and traditional approaches to noise problems. Noise in semiconductor devices refers to any unwanted signal or disturbance in the device that degrades performance. In semiconductor devices, noise is attributed to hot-electron effects. Current advances in information technology have led to the development of ultrafast devices that are required to provide low-noise, high-speed performance. *Microwave Noise in Semiconductor Devices* considers available data on the speed versus noise trade-off and discusses optimal solutions in semiconductors and semiconductor structures. These solutions are of direct interest in the research and development for fast, efficient, and reliable communications systems. As the only book of its kind accessible to practicing engineers, the material is divided into four parts—the kinetic theory of fluctuations and its corollaries, the methods of measurements of microwave noise, low-dimensional structures, and, finally, devices. With over 100 illustrations presenting recent experimental data for up-to-date semiconductor structures designed for ultrafast electronics, together with results of microscopic simulation where available, these examples, tables, and references offer a full comprehension of electronic processes and fluctuation in dimensionally quantizing structures. Bridging the apparent gap between the microscopic approach and the equivalent circuit approach, *Microwave Noise in Semiconductor Devices* considers microwave fluctuation phenomena and noise in terms of ultrafast kinetic processes specific to modern quantum-well structures. Scientists in materials science, semiconductor and solid-state physics, electronic engineers, and graduate students will all appreciate this indispensable review of contemporary and future microwave and high-speed electronics.

HANS LUDWIG HARTNAGEL is Professor at Darmstadt University of Technology in Darmstadt, Germany. RAMUNAS KATILIUS, PhD, is Professor and principal research associate of the Fluctuation Research Laboratory at the Semiconductor Physics Institute in Vilnius, Lithuania. ARVYDAS MATULIONIS, PhD, is Professor and Head of the Fluctuation Research Laboratory at the Semiconductor Physics Institute in Vilnius, Lithuania.

great . feel very good . For a home product, for the price, this is quite good. I prefer a heavier

product altogether, but I was surprised with the quality considering how inexpensive this product is. Coming from a professional background, I'd say this is a great piece to start with. just fine. my students like it ,

[Download to continue reading...](#)

Microwave Noise in Semiconductor Devices Mug Cakes Cookbook: My Top Mug Cake Recipes for Microwave Cakes (microwave mug recipes, microwave cake, mug cakes, simple cake recipes) Easy Livin' Microwave Cooking: A microwave instructor shares tips, secrets, & 200 easiest recipes for fast and delicious microwave meals Semiconductor Physics and Applications (Series on Semiconductor Science and Technology) Microwave Dessert Cookbook: 34 Easy Microwave Recipes for Desserts Learn How to Cook Some Delightful Dishes in Your Microwave: Microwave Recipes You Can Enjoy As a Bachelor, As a Couple or As a Family 30 Delicious Microwave Desserts: Get Quick & Easy Recipes to Satisfy Your Sweet Tooth from Simple Microwave Desserts Cookbook Microwave Mug Recipes: 65 Top Microwave Recipes That Are Tasty And Easy To Make Microwave Cooking: Rice Paper Rolls with Chikuwa, Cucumber and Carrot (Microwave Cooking - Fishes & Shellfishes Book 6) Mug Recipes: Quick & Easy, Microwave Meals to Cook for One (Mug Cookbook, Cooking For One, Microwave) Microwave Meals Like a Chef: 50 Quick and Tasty Recipes That you Didn't Know You Could Make In Your Microwave Mug Meals Cookbook: 95 Delicious Quick And Easy Microwave Meals In A Mug, Microwave Recipes Integrated Microwave Front-Ends with Avionics Applications (Artech House Microwave Library (Hardcover)) Understanding Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering) Semiconductor Power Devices: Physics, Characteristics, Reliability Semiconductor Devices for High-Speed Optoelectronics Semiconductor Physics And Devices: Basic Principles An Introduction to Semiconductor Devices Principles of Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering) Semiconductor Physics And Devices

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)