The Book End

Microwave and RF Engineering: An Electronic Design Automation Approach, Vol. 1

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Unlike many traditional textbooks on microwave and RF engineering written mainly for the classroom, *Microwave and RF Engineering, Vol. 1* adopts a practical, hands-on approach to introduce and familiarize students and engineers new to the field. Topics range from an introduction of lumped elements and transmission line components to multi-stage amplifier design. Theoretical concepts are explained through real world computer models. The authors extensively include the use of electronic design automation tools to illustrate the foundation principles of microwave and RF engineering.

This book introduces not only a solid understanding of microwave and RF engineering concepts, but also more importantly how to use design automation tools to analyze, synthesize, simulate, tune and optimize these essential components in a design flow as practiced in the industry. The book covers RF and microwave concepts such as the Smith Chart, S-parameters, transmission lines, impedance matching, filters and amplifiers. The text is designed to be a 'hands-on' book with practical examples. It stresses the importance of design automation techniques with an emphasis on Agilent's Genesys Linear Software Suite.

In addition to university and college students, engineers and technicians will find this text to be a valuable reference. Practicing engineers can find it helps them set up various circuit models very quickly, while students can solve practical examples and learn the theory by modeling problems using CAD. This first volume teaches the basics of RF and microwave engineering with a tight integration of linear CAD techniques and is a very good reference book for both students and engineers to have on their bookshelf. The second volume will focus more on nonlinear CAD techniques.

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