Synopsis
A unified presentation of the analysis and design of microwave transistor amplifiers (and oscillators) using scattering parameters techniques. KEY FEATURES: Presents material on:

- transmission-lines concepts
- power waves and generalized scattering parameters
- measurements of scattering parameters
- bipolar and field-effect transistors
- power gain expressions
- constant VSWR circles
- gain, noise, and VSWR design trade offs
- broadband amplifiers
- high-power amplifiers
- oscillator

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Customer Reviews
I am a Principal RF Engineer/ Program Manager, with a graduate degree in the field of RF / Microwave and more than a decade of experience working with it. There are some books which are classics, pozar for basic microwave, Gerd Kaiser for basic optic fibers, balanis and K D Prasad for antennas, matthaei- young-jones for filters, Steve cripps for Power amplifiers and Guilermo Gonzales for low noise amplifiers. This book treats the whole concept of designing low noise amplifiers in a very comprehensive manner. It starts off by describing and establishing a understanding of the basics, such as S parameters, smith charts, etc. It doesn't assume anything, but strives to teach right from the beginning. So it is a great reference book. Then it progressively teaches you the various steps of amplifier design, right from determining the stability considerations, design as per gain, VSWR, noise figure etc. Each successive design is more complex than the previous,
and it is a wonderful experience reading and understanding each and every minute detail about transistors, matching networks, dc bias, etc. It deals with practical transistors and components as used in the industry and it gives thorough equations and design tips for a step by step procedure towards design amelioration. The way you trade off the noise figure for VSWR and gain is a tricky business for LNA’s. The way this book describes the method to do so on the smith chart with the Gain, VSWR and Noise figure circles is easy to understand and great to implement. It has become a trend these days to blindly use simulation softwares. After reading this book, you will no longer be dependent on the trial and error method of microwave circuit design.

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