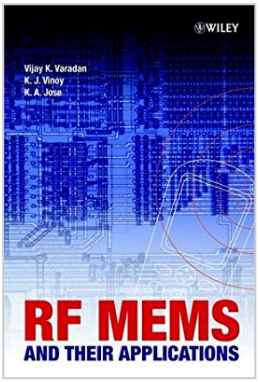

RF MEMS and Their Applications

By Vijay K. Varadan, K. J. Vinoy, K. A. Jose

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose

Microelectromechanical systems (MEMS) refer to a collection of micro-sensors and actuators, which can react to environmental change under micro- circuit control. The integration of MEMS into traditional Radio Frequency (RF) circuits has resulted in systems with superior performance levels and lower manufacturing costs. The incorporation of MEMS based fabrication technologies into micro and millimeter wave systems offers viable routes to ICs with MEMS actuators, antennas, switches and transmission lines. The resultant systems operate with an increased bandwidth and increased radiation efficiency and have considerable scope for implementation within the expanding area of wireless personal communication devices. This text provides leading edge coverage of this increasingly important area and highlights the overlapping information requirements of the RF and MEMS research and development communities.
* Provides an introduction to micromachining techniques and their use in the fabrication of micro switches, capacitors and inductors
* Includes coverage of MEMS devices for wireless and Bluetooth enabled systems
Essential reading for RF Circuit design practitioners and researchers requiring an introduction to MEMS technologies, as well as practitioners and researchers in MEMS and silicon technology requiring an introduction to RF circuit design.

RF MEMS and Their Applications

By Vijay K. Varadan, K. J. Vinoy, K. A. Jose

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose

Microelectromechanical systems (MEMS) refer to a collection of micro-sensors and actuators, which can react to environmental change under micro- circuit control. The integration of MEMS into traditional Radio Frequency (RF) circuits has resulted in systems with superior performance levels and lower manufacturing costs. The incorporation of MEMS based fabrication technologies into micro and millimeter wave systems offers viable routes to ICs with MEMS actuators, antennas, switches and transmission lines. The resultant systems operate with an increased bandwidth and increased radiation efficiency and have considerable scope for implementation within the expanding area of wireless personal communication devices. This text provides leading edge coverage of this increasingly important area and highlights the overlapping information requirements of the RF and MEMS research and development communities.
* Provides an introduction to micromachining techniques and their use in the fabrication of micro switches, capacitors and inductors
* Includes coverage of MEMS devices for wireless and Bluetooth enabled systems
Essential reading for RF Circuit design practitioners and researchers requiring an introduction to MEMS technologies, as well as practitioners and researchers in MEMS and silicon technology requiring an introduction to RF circuit design.

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose Bibliography

- Sales Rank: #6315182 in Books
- Published on: 2002-12-03
- Original language: English
- Number of items: 1
- Dimensions: 9.90" h x 1.12" w x 6.90" l, 1.82 pounds
- Binding: Hardcover
- 406 pages

Editorial Review

From the Back Cover
The growing requirement for wireless devices with increased functionality and reduced power consumption is driving the development of new RF micro-electro-mechanical systems (RF MEMS).

RF MEMS and their Applications sets out to address an increasing need for information by providing a vital overview of this emerging field.

This book:
* Presents an accessible review of MEMS devices and fabrication techniques.

* Discusses the development of RF MEMS switches and the attempts to reduce their actuation voltage.

* Outlines the design and development of RF MEMS based inductors, capacitors, filters and phase shifters.

* Covers the technology behind micromachined antennas.

* Describes integration and packaging techniques for RF MEMS devices.
Offering readers a guide to the development of RF MEMS components and systems, this unique reference will appeal to RF and microwave engineers and MEMS experts alike. Graduate students and researchers in the telecommunications and microelectronics field will profit from the detailed overview of current microfabrication techniques. Materials technologists and physicists working in industrial and academic research & development will also find this a valuable reference.

Users Review

From reader reviews:

John Carter:

Have you spare time for a day? What do you do when you have more or little spare time? Yeah, you can choose the suitable activity with regard to spend your time. Any person spent their very own spare time to take a move, shopping, or went to the actual Mall. How about open or even read a book entitled RF MEMS and Their Applications? Maybe it is to be best activity for you. You know beside you can spend your time along with your favorite's book, you can cleverer than before. Do you agree with the opinion or you have various other opinion?

Dwight Ivers:

What do you ponder on book? It is just for students as they are still students or the item for all people in the world, exactly what the best subject for that? Merely you can be answered for that question above. Every person has various personality and hobby for every single other. Don't to be obligated someone or something that they don't wish do that. You must know how great and important the book RF MEMS and Their Applications. All type of book would you see on many sources. You can look for the internet sources or

other social media.

Matthew Sammons:

The event that you get from RF MEMS and Their Applications is a more deep you digging the information that hide inside the words the more you get interested in reading it. It doesn't mean that this book is hard to recognise but RF MEMS and Their Applications giving you buzz feeling of reading. The article writer conveys their point in specific way that can be understood by means of anyone who read the idea because the author of this guide is well-known enough. That book also makes your own personal vocabulary increase well. That makes it easy to understand then can go to you, both in printed or e-book style are available. We highly recommend you for having this RF MEMS and Their Applications instantly.

Joseph Wilds:

The e-book with title RF MEMS and Their Applications contains a lot of information that you can discover it. You can get a lot of profit after read this book. This specific book exist new expertise the information that exist in this publication represented the condition of the world at this point. That is important to yo7u to understand how the improvement of the world. This specific book will bring you inside new era of the syndication. You can read the e-book with your smart phone, so you can read this anywhere you want.

Read RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose for online ebook

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose books to read online.

Online RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose ebook PDF download

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose Doc

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose Mobipocket

RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose EPub

1KNB0IFQ8YA: RF MEMS and Their Applications By Vijay K. Varadan, K. J. Vinoy, K. A. Jose