

## Power Efficiency in Broadband Wireless Communications

*By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman*

Download now

Read Online 

**Power Efficiency in Broadband Wireless Communications** By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman

**Power Efficiency in Broadband Wireless Communications** focuses on the improvement of power efficiency in wireless communication systems, especially of mobile devices. Reviewing cutting-edge techniques for conserving power and boosting power efficiency, the book examines various technologies and their impact on consumer devices. It considers each technology, first by introducing the main physical layer components in recent wireless communication systems along with their shortcomings, and then proposing solutions for overcoming these shortcomings.

The book covers orthogonal frequency division multiplexing (OFDM) signal generation and formulation and examines the advantages and disadvantages of OFDM systems compared to alternative multiplexing. It introduces one of the main drawbacks of OFDM systems, peak-to-average power ratio (PAPR), and discusses several PAPR techniques. It also explains how to overcome the main drawbacks of real-world OFDM system applications.

- Considers power amplifier linearization for increasing power efficiency and reducing system costs and power dissipation
- Describes the implementation scenario of the most promising linearization technique, digital predistortion
- Presents some experimental demonstrations of digital predistortion when the device under test is in the loop

Because the most costly device in a communication system that has a direct impact on power efficiency and power consumption is the power amplifier, the book details the behavior and characteristics of different classes of power amplifiers. Describing the evolution of the mobile cellular communication system, it details a cost-effective technique to help you increase power efficiency, reduce system costs, and prolong battery life in next generation mobile devices.

 [Download Power Efficiency in Broadband Wireless Communicati ...pdf](#)

 [Read Online Power Efficiency in Broadband Wireless Communica  
...pdf](#)

# Power Efficiency in Broadband Wireless Communications

*By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman*

**Power Efficiency in Broadband Wireless Communications** By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman

**Power Efficiency in Broadband Wireless Communications** focuses on the improvement of power efficiency in wireless communication systems, especially of mobile devices. Reviewing cutting-edge techniques for conserving power and boosting power efficiency, the book examines various technologies and their impact on consumer devices. It considers each technology, first by introducing the main physical layer components in recent wireless communication systems along with their shortcomings, and then proposing solutions for overcoming these shortcomings.

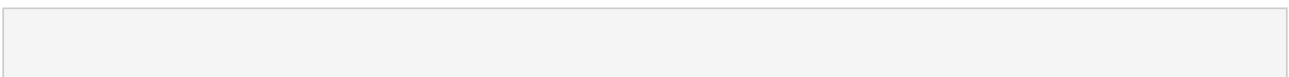
The book covers orthogonal frequency division multiplexing (OFDM) signal generation and formulation and examines the advantages and disadvantages of OFDM systems compared to alternative multiplexing. It introduces one of the main drawbacks of OFDM systems, peak-to-average power ratio (PAPR), and discusses several PAPR techniques. It also explains how to overcome the main drawbacks of real-world OFDM system applications.

- Considers power amplifier linearization for increasing power efficiency and reducing system costs and power dissipation
- Describes the implementation scenario of the most promising linearization technique, digital predistortion
- Presents some experimental demonstrations of digital predistortion when the device under test is in the loop

Because the most costly device in a communication system that has a direct impact on power efficiency and power consumption is the power amplifier, the book details the behavior and characteristics of different classes of power amplifiers. Describing the evolution of the mobile cellular communication system, it details a cost-effective technique to help you increase power efficiency, reduce system costs, and prolong battery life in next generation mobile devices.

**Power Efficiency in Broadband Wireless Communications** By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman **Bibliography**

- Sales Rank: #4881155 in Books
- Published on: 2014-08-29
- Original language: English
- Number of items: 1
- Dimensions: .90" h x 6.00" w x 9.20" l, .0 pounds
- Binding: Hardcover
- 340 pages



 [Download Power Efficiency in Broadband Wireless Communicati ...pdf](#)

 [Read Online Power Efficiency in Broadband Wireless Communica ...pdf](#)

## **Editorial Review**

### About the Author

**Pooria Varahram** received his B.Sc. in electrical and electronics engineering from Khajenasir University of Technology in 2002, his M.Sc. in telecommunications engineering from Tarbiat Modares University in 2004, and Ph.D. in wireless communication engineering from the University of Putra Malaysia (UPM) in 2010. He has more than five years of experience in designing and developing a range of electronic and telecommunication-related projects. He has completed his Post PhD in UPM in 2012. He is now senior lecturer in UPM since January 2013. His research interests are PAPR reduction in OFDM systems, linearization of power amplifiers, and microwave power amplifier design.

## **Users Review**

### **From reader reviews:**

#### **William McNally:**

Spent a free time and energy to be fun activity to do! A lot of people spent their sparetime with their family, or their own friends. Usually they doing activity like watching television, about to beach, or picnic in the park. They actually doing ditto every week. Do you feel it? Would you like to something different to fill your personal free time/ holiday? May be reading a book might be option to fill your totally free time/ holiday. The first thing that you will ask may be what kinds of book that you should read. If you want to test look for book, may be the e-book untitled Power Efficiency in Broadband Wireless Communications can be good book to read. May be it is usually best activity to you.

#### **Ellen Jorge:**

Do you have something that that suits you such as book? The publication lovers usually prefer to pick book like comic, quick story and the biggest an example may be novel. Now, why not trying Power Efficiency in Broadband Wireless Communications that give your satisfaction preference will be satisfied by simply reading this book. Reading routine all over the world can be said as the method for people to know world better then how they react toward the world. It can't be claimed constantly that reading habit only for the geeky person but for all of you who wants to become success person. So , for all of you who want to start studying as your good habit, you can pick Power Efficiency in Broadband Wireless Communications become your personal starter.

#### **Mindy Arredondo:**

Don't be worry for anyone who is afraid that this book will probably filled the space in your house, you will get it in e-book technique, more simple and reachable. This specific Power Efficiency in Broadband Wireless Communications can give you a lot of friends because by you considering this one book you have thing that

they don't and make you actually more like an interesting person. This book can be one of a step for you to get success. This reserve offer you information that probably your friend doesn't learn, by knowing more than additional make you to be great folks. So , why hesitate? We should have Power Efficiency in Broadband Wireless Communications.

**Chris Manley:**

Some individuals said that they feel bored stiff when they reading a publication. They are directly felt the idea when they get a half portions of the book. You can choose often the book Power Efficiency in Broadband Wireless Communications to make your current reading is interesting. Your skill of reading skill is developing when you similar to reading. Try to choose easy book to make you enjoy to study it and mingle the opinion about book and reading through especially. It is to be first opinion for you to like to start a book and go through it. Beside that the publication Power Efficiency in Broadband Wireless Communications can to be your brand new friend when you're experience alone and confuse in doing what must you're doing of their time.

**Download and Read Online Power Efficiency in Broadband  
Wireless Communications By Pooria Varahram, Somayeh  
Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman  
#ZT2J356IQKX**

## **Read Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman for online ebook**

Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman 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 Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman books to read online.

## **Online Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman ebook PDF download**

**Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman Doc**

**Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman Mobipocket**

**Power Efficiency in Broadband Wireless Communications By Pooria Varahram, Somayeh Mohammady, Borhanuddin Mohd Ali, Nasri Sulaiman EPub**