

# High Efficiency RF and Microwave Solid State Power Amplifiers

By Paolo Colantonio, Franco Giannini, Ernesto Limiti

Download now

Read Online 

**High Efficiency RF and Microwave Solid State Power Amplifiers** By Paolo Colantonio, Franco Giannini, Ernesto Limiti

Do you want to know how to design high efficiency RF and microwave solid state power amplifiers?

Read this book to learn the main concepts that are fundamental for optimum amplifier design. Practical design techniques are set out, stating the pros and cons for each method presented in this text. In addition to novel theoretical discussion and workable guidelines, you will find helpful running examples and case studies that demonstrate the key issues involved in power amplifier (PA) design flow.

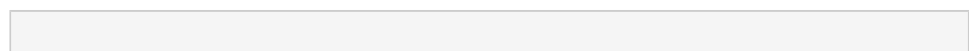
Highlights include:

- Clarification of topics which are often misunderstood and misused, such as bias classes and PA nomenclatures.
- The consideration of both hybrid and monolithic microwave integrated circuits (MMICs).
- Discussions of switch-mode and current-mode PA design approaches and an explanation of the differences.
- Coverage of the linearity issue in PA design at circuit level, with advice on low distortion power stages.
- Analysis of the hot topic of Doherty amplifier design, plus a description of advanced techniques based on multi-way and multi-stage architecture solutions.

*High Efficiency RF and Microwave Solid State Power Amplifiers* is:

- an ideal tutorial for MSc and postgraduate students taking courses in microwave electronics and solid state circuit/device design;
- a useful reference text for practising electronic engineers and researchers in the field of PA design and microwave and RF engineering.

With its unique unified vision of solid state amplifiers, you won't find a more comprehensive publication on the topic.



 [Download High Efficiency RF and Microwave Solid State Power ...pdf](#)

 [Read Online High Efficiency RF and Microwave Solid State Pow ...pdf](#)

# High Efficiency RF and Microwave Solid State Power Amplifiers

*By Paolo Colantonio, Franco Giannini, Ernesto Limiti*

**High Efficiency RF and Microwave Solid State Power Amplifiers** By Paolo Colantonio, Franco Giannini, Ernesto Limiti

Do you want to know how to design high efficiency RF and microwave solid state power amplifiers?

Read this book to learn the main concepts that are fundamental for optimum amplifier design. Practical design techniques are set out, stating the pros and cons for each method presented in this text. In addition to novel theoretical discussion and workable guidelines, you will find helpful running examples and case studies that demonstrate the key issues involved in power amplifier (PA) design flow.

Highlights include:

- Clarification of topics which are often misunderstood and misused, such as bias classes and PA nomenclatures.
- The consideration of both hybrid and monolithic microwave integrated circuits (MMICs).
- Discussions of switch-mode and current-mode PA design approaches and an explanation of the differences.
- Coverage of the linearity issue in PA design at circuit level, with advice on low distortion power stages.
- Analysis of the hot topic of Doherty amplifier design, plus a description of advanced techniques based on multi-way and multi-stage architecture solutions.

*High Efficiency RF and Microwave Solid State Power Amplifiers* is:

- an ideal tutorial for MSc and postgraduate students taking courses in microwave electronics and solid state circuit/device design;
- a useful reference text for practising electronic engineers and researchers in the field of PA design and microwave and RF engineering.

With its unique unified vision of solid state amplifiers, you won't find a more comprehensive publication on the topic.

**High Efficiency RF and Microwave Solid State Power Amplifiers** By Paolo Colantonio, Franco Giannini, Ernesto Limiti **Bibliography**

- Sales Rank: #2453033 in Books
- Published on: 2009-08-24
- Original language: English
- Number of items: 1
- Dimensions: 9.90" h x 1.32" w x 6.90" l, 2.20 pounds
- Binding: Hardcover
- 514 pages

 [Download High Efficiency RF and Microwave Solid State Power ...pdf](#)

 [Read Online High Efficiency RF and Microwave Solid State Pow ...pdf](#)

## **Editorial Review**

From the Back Cover

### **Do you want to know how to design high efficiency RF and microwave solid state power amplifiers?**

Read this book to learn the main concepts that are fundamental for optimum amplifier design. Practical design techniques are set out, stating the pros and cons for each method presented in this text. In addition to novel theoretical discussion and workable guidelines, you will find helpful running examples and case studies that demonstrate the key issues involved in power amplifier (PA) design flow.

Highlights include:

- Clarification of topics which are often misunderstood and misused, such as bias classes and PA nomenclatures.
- The consideration of both hybrid and monolithic microwave integrated circuits (MMICs).
- Discussions of switch-mode and current-mode PA design approaches and an explanation of the differences.
- Coverage of the linearity issue in PA design at circuit level, with advice on low distortion power stages.
- Analysis of the hot topic of Doherty amplifier design, plus a description of advanced techniques based on multi-way and multi-stage architecture solutions.

*High Efficiency RF and Microwave Solid State Power Amplifiers* is:

- An ideal tutorial for MSc and postgraduate students taking courses in microwave electronics and solid state circuit/device design;
- A useful reference text for practising electronic engineers and researchers in the field of PA design and microwave and RF engineering.

With its unique unified vision of solid state amplifiers, you won't find a more comprehensive publication on the topic.

About the Author

**Paolo Colantonio** was born in Rome on March 1969 and he received Electronic Engineering and Ph.D degrees in Microelectronics and Telecommunications from the University of Roma 'Tor Vergata' in 1994 and 2000 respectively, working on design criteria for high efficiency power amplifiers. In 1999 he became a research assistant at the Electronic Engineering Department of the University of Roma 'Tor Vergata' and since 2002 he has been a professor of microwave electronics at the same university.

His research activities are mainly focused on the field of microwave and millimetre-wave electronics, and in particular on design criteria for nonlinear microwave subsystems. This activity resulted in the development of innovative design criteria for high efficiency and high linear power amplifiers, oriented to the optimization of power performance making use of harmonic tuning classes of operation. The results of such activities have been presented in major conferences and published in international journals.

Paolo Colantonio has been responsible for the work package activity on 'power amplifier design overview' in the VI-FP European Network of Excellence TARGET (January 2004–June 2005) and general chairman of the international event 'First TARGET NoE Workshop on RF Power Amplifiers', held in Orvieto, Italy 2005.

He is author or co-author of more than 120 papers on PA design published in refereed journals or international conference proceedings and he has been awarded Best Poster Paper at GAAS 2000 (*IMD performances of harmonically tuned microwave power amplifiers*) and Best Paper at EuMIC 2007 (*A 6W Uneven Doherty Power Amplifier in GaN Technology*).

**Franco Giannini** was born in Galatina (LE), on November 9, 1944, and graduated in Electronics Engineering, *summa cum laude* in 1968, before getting the chair of Full Professor of Applied Electronics in 1980. In 2008 he was awarded the *Laurea Honoris Causa Scientiarum Technicarum* degree by the Warsaw University of Technology (WUT), Poland.

Since 1981 he has been at the University of Roma 'Tor Vergata', where he has been serving as Head of Department, Vice President for International Affairs, Pro-Rector, and Dean of the Faculty of Electronics Engineering. He presently chairs the Microwave Engineering Centre for Space Applications (MECSA). He has been working on modelling, characterization and design methodologies of active and passive microwave components and circuits, including MICs and MMICs for telecommunication and space applications, authoring or co-authoring more than 400 scientific contributions.

He chaired the theme MMICs of the national project MADESS I of the CNR and was a member of the Management Board of MADESS II, chairman of the theme MMICs of the National Project MICROELECTRONICS, and member of the Board of Directors of the Italian Space Agency (ASI).

He has also been active in many European Projects, and was the Italian representative in the 'European Working Group for GaAs Microelectronics'. He has been acting as consultant for various national and international organizations, including the ITU for the United Nations Development Program (UNDP), and the European Union for ESPRIT, LTR, ISTC projects. He has been chairman of various International Symposia on Microwave & MillimetreWave Techniques and is a member of many committees of international scientific conferences.

In 1996 Professor Giannini was awarded the 'Irena Galewska Kielbasinski Prize' by the Technical University of Darmstadt, Germany, and an Honorary Professorship by WUT, Poland, in 2001.

**Ernesto Limiti** has been Full Professor of Electronics at the University of Roma 'Tor Vergata' since 2002, after being associate professor and researcher at the same university since 1991.

He teaches undergraduate courses in microwave electronics, namely Microwave Electronics (basic) and Microwave Instrumentation and Measurements, all of them at the *LaureaMagistrale* in the Electronic Engineering degree course (i.e. towards students with at least three years experience at the university). He also teaches MSc and PhD courses, both at the University of Roma 'Tor Vergata' and at other Italian universities.

His scientific interests encompass a broad range of topics, including microwave active device characterization and modelling, regarding both linear (small-signal and noise) and nonlinear regimes and microwave subsystems design methodologies. Regarding the latter, high efficiency power amplifier design methodologies have been his focus since 1992, oriented towards power performance optimization making use of harmonic tuning operating classes. This research topic has been investigated also in the frame of European research projects, e.g. Manpower, Edge, and others. The results on the work in high efficiency power amplifier design approaches have been presented in major conferences and published in international journals.

Ernesto Limiti is author or co-author of more than 200 papers appearing in refereed journals or international conference proceedings. He is a member of the Editorial Board of the International Journal of Microwave and Millimetre-Wave CAE (Wiley Interscience), serving also as a reviewer for various IEEE Transactions and IET Journals.

He has been general chairman and organizer of the 2004 international workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits (INMMiC 2004) as well as the 11th International Symposium on Microwave and Optical Technology (ISMOT 2007).

## **Users Review**

### **From reader reviews:**

#### **Cynthia Miller:**

Have you spare time for just a day? What do you do when you have far more or little spare time? Yes, you can choose the suitable activity for spend your time. Any person spent their own spare time to take a go walking, shopping, or went to often the Mall. How about open or maybe read a book entitled High Efficiency RF and Microwave Solid State Power Amplifiers? Maybe it is to become best activity for you. You understand beside you can spend your time together with your favorite's book, you can better than before. Do you agree with its opinion or you have different opinion?

#### **Angeline Stallings:**

People live in this new day of lifestyle always make an effort to and must have the spare time or they will get great deal of stress from both day to day life and work. So , whenever we ask do people have time, we will say absolutely without a doubt. People is human not really a huge robot. Then we consult again, what kind of activity do you possess when the spare time coming to an individual of course your answer will unlimited right. Then ever try this one, reading guides. It can be your alternative inside spending your spare time, the book you have read is definitely High Efficiency RF and Microwave Solid State Power Amplifiers.

#### **Eleanor Abney:**

Are you kind of active person, only have 10 or even 15 minute in your day to upgrading your mind ability or thinking skill also analytical thinking? Then you are having problem with the book as compared to can satisfy your short period of time to read it because all this time you only find reserve that need more time to be go through. High Efficiency RF and Microwave Solid State Power Amplifiers can be your answer mainly because it can be read by you who have those short spare time problems.

#### **Mary Bessler:**

This High Efficiency RF and Microwave Solid State Power Amplifiers is fresh way for you who has curiosity to look for some information since it relief your hunger info. Getting deeper you onto it getting knowledge more you know or else you who still having little bit of digest in reading this High Efficiency RF and Microwave Solid State Power Amplifiers can be the light food to suit your needs because the information inside this specific book is easy to get by simply anyone. These books develop itself in the form that is certainly reachable by anyone, yeah I mean in the e-book web form. People who think that in publication form make them feel drowsy even dizzy this e-book is the answer. So there isn't any in reading a publication especially this one. You can find actually looking for. It should be here for you. So , don't miss it! Just read this e-book type for your better life as well as knowledge.

**Download and Read Online High Efficiency RF and Microwave  
Solid State Power Amplifiers By Paolo Colantonio, Franco  
Giannini, Ernesto Limiti #TOBGDVR1KJL**

## **Read High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti for online ebook**

High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti 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 High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti books to read online.

### **Online High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti ebook PDF download**

**High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti Doc**

**High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti Mobipocket**

**High Efficiency RF and Microwave Solid State Power Amplifiers By Paolo Colantonio, Franco Giannini, Ernesto Limiti EPub**