



Linear CMOS RF Power Amplifiers for Wireless Applications [Efficiency Enhancement and Frequency-Tunable Capability /

Dal Fabbro, Paulo Augusto

Springer Netherlands,
2010

Monografía

The RF power amplifier is a key component in a wireless transceiver and is considered by many as the design bottleneck in the transmitting chain. Linear CMOS RF Power Amplifiers for Wireless Applications addresses two fundamental aspects in RF power amplifier design for integration in CMOS technologies at 2.4, 3.7 and 5.2 GHz: efficiency enhancement and frequency agility. The well-known linearity(QA(B(3C(Befficiency trade-off is circumvented by employing an efficiency-enhancement technique called the dynamic supply RF power amplifier. The design of this system is described with great detail and compared with other efficiency enhancement techniques. The frequency agility is achieved with a novel impedance matching network based on coupled inductors. The design of a dual-band RF power amplifier is shown, with a careful analysis of the tunable matching network and its interaction with the rest of the circuit. The considerations and conclusions drawn throughout this book are based on simulation as well as measurement results from the integrated circuit prototypes carefully built and respecting best practices in RF design

<https://rebiunoda.pro.baratznet.cloud:28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMTA3NjExNzk>

Título: Linear CMOS RF Power Amplifiers for Wireless Applications [Recurso electrónico] Efficiency Enhancement and Frequency-Tunable Capability by Paulo Augusto Dal Fabbro, Maher Kayal

Editorial: Dordrecht Springer Netherlands 2010

Descripción física: XIV, 220p. digital

Mención de serie: Analog Circuits and Signal Processing

Documento fuente: Springer eBooks

Contenido: Preface. Notation -- 1 Introduction -- 2 Efficiency Enhancement -- 3 Design of the Dynamic Supply CMOS RF Power Amplifier -- 4 Measurement Results for the Dynamic Supply CMOS RF Power Amplifier -- 5 Frequency-Tunable Capability -- 6 Design of the Frequency-Tunable CMOS RF Power Amplifier

(QB(Ber -- 7 Measurement Results for the Frequency-Tunable CMOS RF Power Ampli(QB(Ber -- 8 Conclusion -- 8.1 Highlights -- 9 Appendix A Measurement Setups and Additional Screenshots -- 10 Appendix B Procedure for Impedance Matching of Printed-Circuit RF Ampli(QB(Bers -- Index

ISBN: 9789048193615

Materia: Engineering Microwaves Engineering Microwaves, RF and Optical Engineering Solid State Physics Spectroscopy and Microscopy

Autores: Kayal, Maher

Entidades: SpringerLink (Online service)

Enlace a formato físico adicional: Printed edition 9789048193608

Punto acceso adicional serie-Título: Analog Circuits and Signal Processing

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es