CAMBRIDGE

Great Titles from Cambridge!

Second Edition

Computational Electromagnetics for RF and Microwave Engineering

David B. Davidson \$89.00: Hb: 978-0-521-51891-8: 530 pp.



Essentials of Short-Range Wireless

Nick Hunn

The Cambridge Wireless
Essentials Series
\$59.00: Hb: 978-0-521-76069-0: 344 pp.





Forthcoming ...

Emerging Wireless Technologies and the Future Mobile Internet

Edited by Dipankar Raychaudhuri, Mario Gerla \$90.00: Hb: 978-0-521-11646-6: 376 pp.



Wireless Communication Systems

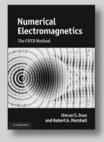
From RF Subsystems to 4G Enabling Technologies

Ke-Lin Du, M. N. S. Swamy \$95.00: Hb: 978-0-521-11403-5: 1,020 pp.

Forthcoming ...

Numerical Electromagnetics The FDTD Method

Umran S. Inan, Robert A. Marshall \$95.00: Hb: 978-0-521-19069-5: 384 pp.

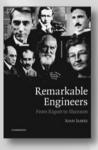


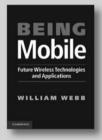
Remarkable Engineers

From Riquet to Shannon

Ioan James

\$85.00: Hb: 978-0-521-51621-1: 218 pp. \$34.99: Pb: 978-0-521-73165-2





Being Mobile

Future Wireless Technologies and Applications

William Webb

\$75.00: Hb: 978-1-107-00053-7: 230 pp.



Practical Digital Wireless Signals

Earl McCune

The Cambridge RF and Microwave Engineering Series \$85.00: Hb: 978-0-521-51630-3: 434 pp.

Advanced RF MEMS

Edited by
Stepan Lucyszyn

The Cambridge RF and Microwave Engineering Series \$99.00: Hb: 978-0-521-89771-6: 440 pp.



Second Edition

Radio-Frequency Electronics Circuits and Applications

Jon B. Hagen \$80.00: Hb: 978-0-521-88974-2: 452 pp.



Prices subject to change.

www.cambridge.org/us/computerscience 800.872.7423



Advertising Opportunities

To advertise in this journal and for details of pricing, availability and discount opportunities please contact:

Advertising in UK, Europe and rest of world

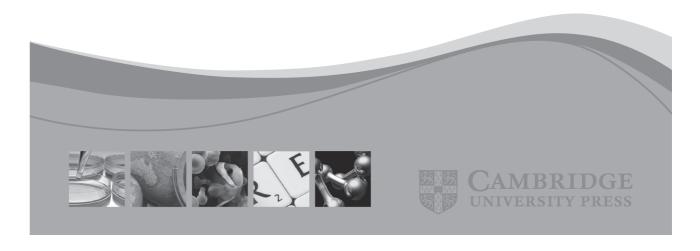
The Advertising Sales Team Cambridge University Press The Edinburgh Building, Shaftesbury Road, Cambridge, UK, CB2 8RU Tel: +44 (0)1223 325083

Email: ad_sales@cambridge.org

Advertising in USA, Mexico and Canada

Journals Advertising Coordinator 32 Avenue of the Americas, New York, NY 10013-2473, USA

Tel: +1 (212) 337 5053 Fax: +1 (212 337 5959) E-mail: journals_advertising@cambridge.org



INTERNATIONAL JOURNAL OF

MICROWAVE AND WIRELESS TECHNOLOGIES

CONTENTS

Division by current: a new approach to FET capacitance modeling		A wideband CMOS distributed amplifier with slow-wave shielded transmission lines
Stephen Maas	1	Rosa R. Lahiji, Linda P.B. Katehi and
Including orbital fluctuations in the noise		Saeed Mohammadi
spectrum of autonomous circuits		Noise properties of balanced amplifier
Fabio L. Traversa and Fabrizio Bonani	11	configurations
On the evaluation of the high-frequency load		E.E.M. Woestenburg
line in active devices		A dual wideband Sierpinski carpet fractal-sha
Antonio Raffo, Gustavo Avolio, Dominique M.MP.		planar monopole antenna with CPW feed
Schreurs, Sergio Di Falco, Valeria Vadalà,		Rowdra Ghatak, Swapan K. Ghoshal,
Francesco Scappaviva, Giovanni Crupi,		Durbadal Mondal and Anup K. Bhattacharjee
Bart Nauwelaers and Giorgio Vannini	19	Dosimetry of an in vitro exposure system
Semi-physical nonlinear circuit model with		for fluorescence measurements during
device/physical parameters for HEMTs		2.45 GHz microwave exposure
Hiroshi Otsuka, Toshiyuki Oishi, Koji Yamanaka,		Mohamad Kenaan, Mihaela G. Moisescu,
Mattias Thorsell, Kristoffer Andersson, Akira Inoue,		Tudor Savopol, Diana Martin, Delia Arnaud-Cormos
Yoshihito Hirano and Iltcho Angelov	25	and Philippe Leveque
ORIGINAL ARTICLES		
Optimization criteria for power amplifiers		
Jacques B. Sombrin	35	
Highly efficient 3-stage Doherty power amplifier using gate bias adaption		

47





59

67

77

81

fractal-shaped

Ildu Kim, Junghwan Moon, Jungjoon Kim,

Seunghoon Jee, Junghwan Son and Bumman Kim