



Wireless and Microwave Technology Conference 2004
Radisson Sand Key, Clearwater, FL April 15, 16 2004



Tutorial		TUTORIAL SESSION - Thursday, April 15		Room: Belleair	
8:00 AM	RA-1	Practical Aspects of Feedforward HPA Design	H. Thai	Jabil	
9:40 AM	BREAK				
Tutorial		TUTORIAL SESSION - Thursday, April 15		Room: Belleair	
10:00 AM	RA-2	Practical Implementation of IEEE-802.11 OFDM Radio Terminal: RF System and Digital Signal Processing Design	M. Nezami	Raytheon	
12:00 PM	LUNCH				
Tutorial		TUTORIAL SESSION - Thursday, April 15		Room: Belleair	
1:00 PM	RA-3	Introduction to Ultra Wideband Communications	F. Martin	Motorola	
3:00 PM	BREAK				
Tutorial		TUTORIAL SESSION - Thursday, April 15		Room: Belleair	
3:20 PM	RA-4	RF & Baseband Wireless Device Testing	R. Flor	Tektronix-Rhode & Schwartz	





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Paper	ULTRA WIDEBAND TECHNOLOGY - Thursday, April 15		Room: Redington	
8:00 AM	RB-1	A Semi-Blind Channel Estimator and Multiuser Receiver for UWB Systems	I. Guvenc and H. Arslan	Univ. So. Florida
8:20 AM	RB-2	Ultra Low Power Pulse Mode Low Noise Amplifier for UWB Impulse Radio Receiver	W. Wang and H. Gong	Univ. Wisconsin - Milwaukee
8:40 AM	RB-3	Effect of Data Packet End-to-End Delay on Peer-to-Peer Location in IEEE 802.15.3 UWB Wireless Sensor Networks	M. Perkins, L. Hester, Y. Huang, and J. Huang	Motorola
9:00 AM	RB-4	A Testbed for Real-Time Performance Evaluation of Indoor Geolocation Systems	M. Heidari and K. Pahlavan	Worcester Polytechnic Institute
9:20 AM	RB-5	Ultra Wide Band Analog Transceiver	H. Shivalingaiah, X. Chen, and S. Kiaei	Arizona State University

9:40 AM **BREAK**

Paper	POWER AMPLIFIERS - Thursday, April 15		Chair: J. Paviol	Room: Redington
10:00 AM	RC-1	Design of a High Power Doherty Amplifier using a new Large Signal LDMOS FET Model	S. Wood, R. Pengelly	Cree
10:20 AM	RC-2	Linearity Improvement of a Doherty Amplifier Using a BaSrTiO ₃ Phase Shifter	Y. Zhao, et al.	UC San Diego
10:40 AM	RC-3	Predicting Out-of-band Non-Linear Power Amplifier Stability Using Hot S-parameters	J. Dunsmore and W. Smith	Agilent Technologies
11:00 AM	RC-4	Cortical Algorithm Applied to RF Power Amplifier Memory Modeling	P. Draxler, I. Langmore, and P.M Asbeck	Qualcomm and UC San Diego
11:20 AM	RC-5	A Comparison between Class E Power Amplifiers employing LDMOS FETs and SiC MESFETs	R. Pengelly	Cree
11:40 AM				

12:00 PM **LUNCH**

Paper	RF MEMS - Thursday, April 15		Room: Redington	
1:00 PM	RD-1	Advances toward Products	A. Morris	wiSpry
1:20 PM	RD-2	RF MEMS Shunt-Series Switch Complementary Circuit	Y. Cai and L. Katehi	Purdue
1:40 PM	RD-3	RF MEMS Switches and Resonators Fabricated with a Common Process	C. Jahnes, D. Seeger, et al.	IBM
2:00 PM	RD-4	RF MEMS Metal Contact Switch: Design, Measurement, and Modeling	R. Webster, J. R. Reid, and L. Starman	AFRL
2:20 PM	RD-5	Temperature Based Measurements of Distributed MEMS Tapered Impedance Phase Shifter on Silicon	B. Lakshminarayanan and T. Weller	Univ. So. Florida
2:40 PM	RD-6	MEMS Modeling	S. Taleie, J. Zhang, S., and S. Phillips	Arizona State University

3:00 PM **BREAK**

Paper	WIRELESS LAN - Thursday, April 15		Chair: J. Frolik	Room: Redington
3:20 PM	RE-1	Impairment Corrections and Linearization in Multi-Carrier Radio Transmitters	M. Nezami	Raytheon
3:40 PM	RE-2	A High-Speed Hardware Platform for IEEE 802.11a WLAN Algorithm Development and Testing	J. Parks and K. Gugel	Univ. of Florida
4:00 PM	RE-3	MIMO-OFDM Channel Estimation for Correlated Fading Channels	K. Ozdemir, E. Arwas, and H. Arslan	Univ. So. Florida and Syracuse University
4:20 PM	RE-4	A Smart Antenna Scheme for High Altitude Platforms in Future Wireless Communication Systems	T. Do-Hong, G. Olbrich and P. Russer	Munich University
4:40 PM				





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Paper	PLENARY SESSION - Friday, April 16		Room: Sand Key Ballroom	
8:30 AM	FA-1	Defense to Wireless to Defense - A Round Trip	P. White and E. Webber	Integrated Defense Systems, Inc.
9:30 AM	FA-2	High Bandwidth Reachback – Special Operations Challenge for the 21st Century	Erik Syvrud	SOCOM

10:10 AM **BREAK**

Paper	MODELING - Friday, April 16		Chair: A. Beyer	Room: Redington
10:30 AM	FB-1	Comprehensive Large-Signal Characterization and Modelling of Microwave PIN Diodes for Modern Communication Systems	V. Cojocar and C. Gibby	TDK Ireland
10:50 AM	FB-2	The Analysis of Metal-Thick-Insulator-Semiconductor CPW Lines using Generalized Transverse Resonance	J. Culver and T. Weller	Xetron and Univ. So. Florida
11:10 AM	FB-3	Thermal Correction of IV Curves for Nonlinear Transistor Modeling	C. Baylis II, L. Dunleavy, and J. Daniel	Univ. So. Florida
11:30 AM	FB-4	Helical Inductor Modeling in LTCC Circuits based on Q-Factor Measurements and Numerical Methods	D. Humphrey and B. Verner	TDK Ireland
11:50 AM	FB-5	Compressed Vector Based Systems	S. Farahani, S. Kiaei, and M. Smith	Arizona State University

12:30 PM **LUNCH**

Paper	DESIGN AUTOMATION - Friday, April 16		Room: Redington	
1:30 PM	FC-1	Electromagnetic Spiral Inductor Analysis	J. Rautio	Sonnet Software
1:50 PM	FC-2	Advancements in EDA Modeling and Synthesis tools	W. Clausen	Eagleware
2:10 PM	FC-3	Time-domain interconnect modeling for pulsed and UWB applications	M. Heimlich, E. Wasserman, M. Khairandish	Applied Wave Research
2:30 PM	FC-4	Fast and Accurate Fractional-N Synthesizer Simulation Using Ansoft Designer™	J. Cutcher, W. Martin, W. Al-Qaq, and J. Gu	Motorola Labs and Ansoft
2:50 PM	FC-5	Automatic Generation of EM-based, Parameterized Passive Models for Faster, More Accurate MMIC and Board Design	K. Bohannan	Agilent Technologies





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Paper	SOFTWARE RADIO - Friday, April 16		Chair: P. Flikkema		Room: Belleair
10:30 AM	FD-1	Architectural benefits of wide bandgap RF power transistors for frequency agile basestation systems	G. Fischer	Bell Labs	
10:50 AM	FD-2	Technology Challenges of Cognitive Radio	J. Mitola	National Security Agency and DARPA	
11:30 AM	FD-3	Software Defined Radio Solutions to Spectrum Management Problems	J. Polson and B. Fette	General Dynamics	
11:50 AM	FD-4	Technologies for Reconfigurable Transmitters for Next Generation Handsets	J. S. Kenney	Ga. Tech	
12:10 PM					

12:30 PM **LUNCH**

Paper	POWER MANAGEMENT AND IC DESIGN - Friday, April 16		Chair: J. Hubert		Room: Belleair
1:30 PM	FE-1	Power Management for Wireless Handsets	S. Kiaei and S. Abedinpour	Arizona State University	
1:50 PM	FE-2	Two Design Trade -offs in a Low-Cost, All-CMOS 2.4 GHz DSSS Transceiver for IEEE 802.15.4	D. Taubenheim, P. Gorday and F. Martin	Motorola Labs	
2:10 PM	FE-3	CMOS Multiple Reference Clock Generator for Low Power Applications	G. Cafaro and B. Stengel	Motorola Labs	
2:30 PM	FE-4	An Integrated, Quad-Band, GSM, Transmit Front-End-Module with State-of-the-Art Efficiency, Ruggedness, and Coupling Variation	Y. Tkachenko, et al.	Skyworks Solutions	
2:50 PM	FE-5	Performance Comparisons of the High-Speed 8:1 Multiplexer Designed Using SiGe and CMOS Technologies	H. J. Barnaby and W. Chen	University of Arizona	

