TH3A Wireless Components and Systems

Chair: J.F. Sevic, QUALCOMM
Co-chair: J. Bellatoni, Watkins-Johnson
ROOM A201

1:20 PM

TH3A-1: *Radio Architecture of a Wideband DS-CDMA Testbed for Future Cellular Systems*
W. Anzill, T. Melander, Ericsson Radio Systems AB, Stockholm, Sweden

1:40 PM

TH3A-2: *Mobitex PC Card Wireless Modem*
S. Moghe, J. Stone, S. Stratmoen, S. Consolazio, K. Rausch, S. Geske, M. Patel, Northrop Grumman Corp., ESID-EIWS, Rolling Meadows, IL

2:00 PM

TH3A-3: *A Low Cost 16.2 GHz Phase Locked Oscillator for Wireless LAN*
T. A. Bos, F. Bayer, U. Lott, ETH Zurich, Zurich, Switzerland

2:20 PM

TH3A-4: *A True Enhancement Mode Single Supply Power HFET for Portable Applications*
E. Glass, J.-H. Huang, J. Abrokwah, M. Majerus, R. Droopad, B. Ooms, Phoenix Corp. Research Labs., Tempe, AZ, B. Bernhardt, E. Spears, Comm. Prod. Lab., Tempe, AZ

2:40 PM

TH3A-5: *3.4 V Operation 1W MMIC Power Amplifier with SrTiO3 Capacitors for Digital Cellular Phones*
K. Yamaguchi, T.B. Nishimura, N. Iwata, Kansai Elec. Research Lab., K. Takemura, Y. Miyasaka, Fund. Research Labs., M. Kuzuhara, ULSI Device Devl. Labs., NEC Corp., Shiga, Japan

TH3C High Power Transistors Amplifiers

Chair: T. Cisco, Hughes Aircraft
Co-chair: L. Kushner, MIT Lincoln Laboratory
ROOM A102

1:20 PM

TH3C-1: *A S-Band Push-Pull 60-Watt GaAs MESFET for MMDS Applications*
G. Sarkissian, R. Basset, California Eastern Labs., Santa Clara, CA, Z. Shingu, F. Ono, NEC Corp., Kanagawa, Japan

1:40 PM

TH3C-2: *60W L-Band Power AlGaAs/GaAs Heterostructure FETs*
J. Morikawa, K. Asano, K. Ishikura, H. Oikawa, M. Kuzuhara, ULSI Device Dev. Labs., M. Kanamori, Kansai Elec. Research Labs., NEC Corp., Shiga, Japan

1:50 PM

TH3C-3: *High Efficiency S-Band 30W Power GaAs FETs*
I. Takenaka, H. Takahashi, K. Asano, J. Morikawa, K. Ishikura, M. Kuzuhara, H. Tsutsui, ULSI Device Dev. Labs., M. Kanamori, Kansai Elec. Research Labs., NEC Corp., Shiga, Japan

2:00 PM

TH3C-4: *High Efficiency 11 Watt Octave S/C-Band PHEMT MMIC Power Amplifier*
J.J. Komiak, S.C. Wang, T.J. Rogers, Sanders, Nashua, NH

2:10 PM

TH3C-5: *A 15 Watt Dual Band HBT MMIC Power Amplifier*
M.R. DeHaan, G. Wilcox, M.S. Jones, J. McLeod, Texas Instruments Inc., Dallas, TX, S.C. Miller, Lockheed Martin Inc.

2:30 PM

TH3C-6: *A 6-18 GHz Broadband High Power MMIC for EW Applications*
A.R. Barnes, M.T. Moore, M.B. Allenson, Defence Research Agency, Malvern, UK

2:40 PM

TH3C-7: *Push-Pull Power Amplifiers in the X-Band*
S. Toyoda, Faculty of Eng., Osaka Inst. of Tech., Osaka, Japan

TH3D Topics in Microwave Measurements

Chair: M. Solomon, The Mitre Corp.
Co-chair: D. Wait, NIST-Boulder
ROOM A101

1:20 PM

TH3D-1: *W-Band Measurements of 100 µm Height Micro-Machined Air-Filled Rectangular Waveguides*
C.E. Collins, R.D. Pollard, R.E. Miles, D.P. Steenson, Univ. Leeds, Leeds, UK, J.W. Digby, G.M. Parkhurst, J.M. Chamberlain, Univ. of Nottingham, UK, N.J. Cronin, Univ. of Bath, UK, J.W. Bowen, Univ. of Reading, UK

1:30 PM

TH3D-2: *Broadband Noise Parameter and S-Parameter Measurement Technique*
M. L. Schmatz, W. Bachtold, ETH Zurich, Switzerland

1:40 PM

TH3D-3: *Determination of Wave Noise Sources Using Spectral Parametric Modeling*
T. Werling, E. Bourdel, D. Pasquet, ENSEA-EMO, Cergy, France, A. Boudiaf, Univ. de Marne la Vallee, Noise le Grand, France

2:00 PM

TH3D-4: *High Speed Noise Power Ratio Measurement Techniques on RF Power Amplifiers*
W. Vaillancourt, Raytheon Co., Andover, MA, S. Yates, Hewlett-Packard, Burlington, MA

2:20 PM

TH3D-5: *A Dynamic AM/AM and AM/PM Measurement Technique*
A.A. Moulthrop, C.J. Clark, C.P. Silva, M.S. Muha, The Aerospace Corp., Los Angeles, CA

2:40 PM

TH3D-6: *A Broadband Heterodyne Measurement Setup for Active Millimeter Wave Integrated Antennas*
R.H. Rasshofer, A. Stiller, M.O. Thieme, H. Schulz, E.M. Biebl, TU Munchen, Munchen, Germany

TH3E HBT/HEMT Modeling

Chair: A.K. Sharma, TRW
Co-chair: S. Pritchett, TI
ROOM A108

1:20 PM

TH3E-1: *AlGaAs/GaAs HBT Profile Optimization Using the Taguchi Method*
G. N. Henderson, M/A-COM, Inc., Lowell, MA, D. Wu, Power Semiconductor Products R&D, Hewlett-Packard, Newark, CA

1:40 PM

TH3E-2: *Bias and Temperature Dependent Noise Modeling of HBTs*
T. Daniel, Compact Software, Paterson, NJ

2:00 PM

TH3E-3: *Transmission Line Model of the Distributed Heterojunction Bipolar Transistors*
L.L. Liou, Wright Lab., Wright-Patterson AFB, OH

2:10 PM

TH3E-4: *Capacitance Topology for High Frequency Modeling of Bipolar Transistors*
A.A. Ciubotaru, Univ. of Texas at Arlington, R.L. Carter, Nat'l. Semiconductor, Arlington, TX

2:20 PM

TH3E-5: *Electrothermal Simulation of HBT by TLM Method with Quasi Two Dimensional Model*
J. Shen, K. Chen, Z. Xie, Dept. of Info. & EE, Zhejiang, P.R. China

2:40 PM

TH3E-6: *A Physics Based Electro-Thermal Model for Microwave and Millimetrewave HEMTs*
R.G. Johnson, C.M. Snowden, R.D. Pollard, Dept. of EE, Leeds Univ., Leeds, England