

TUESDAY, JUNE 10, 1997

IEEE MTT-S IMS TECHNICAL SESSIONS

1:20-3:00 PM

TU3A Monolithic Wireless Technology*Joint RFIC and IMS Session*

*Chair: N. Camilleri, Advanced Micro Devices
Co-chair: Z. Bardai, Hughes Aircraft Co.
Room A201*

1:20 PM **TU3A-1: Silicon RFGCMOS IC Technology for RF Mixed-Mode Wireless Applications**
J. Ma, H.-B. Liang, D. Ngo, E. Spears, B. Yeung, B. Courson, D. Spooner, D. Lamey, J. Alvarez, T. Teraji, J. Ford, S. Cheng, Motorola, Inc., Mesa, AZ

1:40 PM **TU3A-2: Optimization of High Q CMOS-Compatible Microwave Inductors Using Silicon CMOS Technology**
M. Park, H.K. Yu, K.S. Nam, Semiconductor Tech. Div., Elec. & Telecomm. Research Inst., Taejon, Korea, S. Lee, Dept. of EE, Hankuk Univ. of Foreign Studies, Kyungki-do, Korea

1:50 PM

2:00 PM **TU3A-3: Low-Frequency Noise Characteristics of Self-Aligned AlGaAs/GaAs HBT's with a Noise Corner Frequency Below 3 kHz**
J. Kim, Y. Chung, K.H. Ahn, B. Kim, Dept. of Elect. and Electronic Engr., Poaing Univ. of Sci. and Tech., Pohang Korea, J.-H. Shin, LG Electronics Research Center, Seoul, Korea

2:10 PM

2:20 PM **TU3A-4: 28V Low Thermal Impedance HBT with 20 W CW Output Power**
D. Hill, T. Kim, Texas Instruments Inc., Dallas, TX

2:30 PM

2:40 PM **TU3A-5: High-Reliability GaAs HBT Monolithic Microwave Amplifier**
F.M. Yamada, A.K. Oki, D.C. Streit, D.K. Umemoto, L.T. Tran, T.R. Block, D.T. Okazaki, M.M. Hoppe, E.A. Rezek, TRW, Redondo Beach, CA

2:50 PM **TU3A-6: Systematic Investigations on MESFETs and Passive Components Transplanted by Epitaxial Lift Off Onto Host Materials with Various Resistivities**
T. Morf, Swiss Federal Inst. of Tech., Elec. Lab., C. Bibel, W. Bachtold, Lab. for Electromagnetic Fields & Microwave Elec., Zurich, Switzerland

TU3B Electromagnetic Wave Interactions with Electron Devices and Circuits

*Chair: J. Harvey, U.S. Army Research Office
Room A207*

TU3B-1: Electromagnetic Interfacing of Semiconductor Devices and Circuits
S. El-Ghazaly, Arizona State Univ., Tempe, AZ

TU3B-2: Characterization and Modelling of Microwave Large-Signal Device-Circuit Interaction
C.M. Snowden, Dept. of EEE, Univ. of Leeds, Leeds, UK

TU3B-3: Active Transmission Lines....
E. Brown, DARPA, Arlington, VA

TU3B-4: Full Wave BIE Analysis of Travelling Waves in Unbiased/Velocity Saturated FET Structures with Linearly Controlled Current Density
W. Schroeder, I. Wolff, Dept. of Electromag. Theory & Eng., W. Prost, SS Elec. Dept., Duisburg Univ., Duisburg, Germany

TU3B-5: Far Field Radiation in Sub-Picosecond Systems
K.A. Remley, A. Weisshaar, S.M. Goodnick, V.K. Tripathi, Dept. of ECE, Oregon State Univ., Corvallis, OR

TU3C Acoustic Wave Devices for Portable Telecommunications

*Focused Session, Chair: R. Weigel, University of Linz-Austria
Room A102*

TU3C-1: Recent Progress in SAW Filters at GHz Frequencies
D. Penunuri, Motorola Inc., Scottsdale, AZ

TU3C-2: Invited: Design, Fabrication and Applications of GHz SAW Devices
U. Knauer, C.W. Ruppel, Siemens AG, Corporate Res. and Development, Munich, Germany, J. Machui, Siemens Matsushita, Munich, Germany

TU3C-3: Recent and Future RF SAW Technology for Mobile Communications
M. Hikita, N. Shibagaki, A. Isobe, K. Asai, K. Sakiyama, Central Research Lab., Hitachi Ltd., Tokyo, Japan

TU3C-4: High Frequency SAW Devices
J.H. Hines, SAWTEK, Inc., Orlando, FL, D.C. Malocha, Elect. and Computer Engr. Dept., Univ. of Central, FL, Orlando, FL

TU3C-5: Thin Film ZnO Based Bulk Acoustic Mode Filters
C.W. Seabury, P.H. Kobrin, R. Addison, Rockwell Science Ctr., Thousand Oaks, CA, D.P. Havens, Rockwell Filter Products, Costa Mesa, CA

TU3C-6: Novel 24 GHz FMCW Front-End with 2.45 GHz SAW Reference Path for High-Precision Distance Measurements
M. Nalezinski, M. Vossiek, P. Heide, Siemens AG, Corp. Tech., Munich, Germany

TU3D Numerical Methods in Frequency

*Chair: N. Alexopoulos, University of California-Irvine
Room A101*

TU3D-1: Double Vector Integral-Equation Method for Integrated Circuits on PBG Substrates
H.D. Yang, Dept. of EECs, Univ. of Illinois, Chicago, IL

TU3D-2: A Finite Element-Generalized Network Analysis of Finite Thickness Photonic Crystals
R. Coccilo, T. Itoh, EE Dept., UCLA, Los Angeles, CA, G. Pelosi, EE Dept., Univ. of Florence, Florence, Italy

TU3D-3: Accurate Calculation of the Modes of the Circular Multiridge Waveguide
A. Morini, T. Rozzi, A. Angeloni, Dip. Elett., Univ. of Ancona, Ancona, Italy, M. Guglielmi, Esa-Este, Noordwijk, The Netherlands

TU3D-4: A New Modal Approach for Planar Transmission Line to Waveguide Three-Port Transition
B. Storer, A. Aubert, H. Baudrand, Lab. d'Elec., Toulouse, France

TU3D-5: Scattering Properties of Asymmetric Rectangular Iris in a Circular Waveguide Using Edge-Conditioned Basis Functions
T. Lenadan, S. Amari, R. Vahldieck, J. Bornemann, LLiMiC, Dept. of ECE, Univ. of Victoria, Victoria, B.C., Canada

TU3D-6: Generalized Y-Matrix of Arbitrary H-Plane Waveguide Junctions by the BI-RMI Method
P. Arcioni, M. Bressan, G. Conciauro, L. Perregiani, Dept. di Elett., Univ. di Pavia, Pavia, Italy

TU3E Analog Fiber Optic Link Technology

*Chair: D. Jaeger, Duisburg Univ.
Co-chair: C. Gee, Ortel Corp.
Room A108*

TU3E-1: Wireless Distribution via Fiber Optic Technology
J.K. Plourde, Bell Laboratories, Lucent Technologies, Bremingsville, PA

TU3E-2: Stable and High-Power Laser Diode Module for Millimeter-Wave Generation
T. Kuri, K. Kitayama, CRL, Ministry of Posts & Telecomm., Tokyo, Japan

TU3E-3: Fiberoptic Microwave Generation for Bidirectional Broadband Mobile Communications

R.P. Braun, G. Grosskopf, D. Rohde, F. Schmidt, Heinrich-Hertz Inst., Berlin, Germany

TU3E-4: Nd:LiNbO₃ Microchip Laser with 20 GHz Subcarrier

A.J.C. Vieira, P.R. Herzfeld, Drexel Univ., Philadelphia, PA, V.M. Contarino, NAWC-Aircraft Div., Patuxent River, MD, T. Berceli, Tech. Univ. of Budapest

TU3E-5: Experimental 20 Gbit/s Modules for Optical Fiber Links

G. Hanke, Deutsche Telekom AG, Darmstadt, Germany

TU3E-6: Input Impedance Conditions for Minimizing the Noise Figure of an Analog Optical Link

E. Ackerman, C. Cox III, G. Betts, H. Roussel, K. Ray, F. O'Donnell, MIT Lincoln Lab., Lexington, MA