

**61<sup>st</sup> ARFTG Technical Program**  
**Pennsylvania Convention Center**  
**Room 201A**  
**Friday June 13, 2003**

**8:00AM – 8:15AM      Welcome and Introduction**

**8:15AM – 9:15AM      VNA Calibration**

**A Calibration Procedure for On-Wafer Differential Load-Pull Measurements**

M. Spirito, M. P. van der Heijden, M. De Kok and L. C. N. de Vreede

**Accurate Broadband on-wafer SOLT calibrations with Complex Load and Thru Models**

Sathya Padmanabhan, Peter Kirby, John Daniel and Lawrence Dunleavy

**Application of Weighted Least Squares to OSL Vector Error Correction**

David Blackham

**9:15AM – 10:30AM      Morning Break, Exhibition & Interactive Forums**

**10:30AM – 12:00NOON VNA Measurement Systems**

**A Low Cost Implementation of Automated RF Test of a LNA**

Kris K. Kaufman and Thomas R. Baker

**High-Temperature Probe Station for Use in Microwave Device Characterization Through 500°C**

Zachary D. Schwartz, George E. Ponchak, Alan N. Downey and Samuel A. Alterovitz

**Differential De-Embedding Methodology for On-Board CPU Socket Measurements**

Dong-Ho Han, Thomas G. Ruttan and Lesley Polka

**Contemporary Waveguide Technique for Ferroelectric Materials Study with Vector Network Analyzer**

Yuri Poplavko, Victor Kazmirenko, Yuri Prokopenko, Moongi Jeong, Beomjin Kim and Sunggi Baik

**12:00NOON – 1:30PM     Awards Luncheon**

**1:30PM – 3:00PM             Signal Analysis**

**Spectrally Pure Excitation Signals: Only a Dream?**

D. Rabijns, W. Van Moer and G. Vandersteen

**Use of Multisine Signals for Efficient Behavioural Modelling of RF Circuits with Short-Memory Effects**

Dominique Schreurs and Kate A. Remley

**Phase Detrending for Measured Multisine Signals**

Kate A. Remley, Dylan F. Williams, Dominique Schreurs, Giovanni Loglio and Alessandro Cidronali

**Automated Measurement of Intermodulation Tables for Mixers**

Jiang Liu and Lawrence Dunleavy

**3:00PM – 4:00PM             Afternoon Break, Exhibition & Interactive Forums**

**4:00PM – 5:00PM             NonLinear**

**Time-Domain Characterization of Nonlinear Operation of an AlGaIn/GaN HEMT**

V. Kaper, V. Tilak, B. Green, R. Thompson, T. Prunty, L. F. Eastman and J. R. Shealy

**Uncertainty and Design Budgets Applied to Error Vector Magnitude (EVM) for Digital Modulation Systems**

Chris Potter

**On the Implementation of AM/AM AM/PM Behavioral Models in System Level Simulation**

Y. Shen and J. L. Tauritz

**Interactive Forum**

**An Experimental Low-Voltage I-Band Oscillator Assembled with Only Five SMD-Components**

Bettina J. Koster, Adalbert Beyer, Peter Waldow and Ingo Wolff

**Role of Spectral Purity of Down Converting Local Oscillator in the Evaluation of Noise Figure of Microwave Amplifiers**

G. Abdul Latheef and L. Punitha

**Minimizing Distortions in the Time-Domain Measurement of Microwave Communications Signals**

A. A. Moulthrop, M. S. Muha and C. P. Silva

**A Low Cost Temperature-Controlled Chuck for a Cascade Probestation**

Morten Olavsbråten and Lars Indresæter

**Calculation of Accurate Measurement Capacitance of Electrically Small Axi-Symmetric Microstructures near a Probe Tip**

Tao Zhang and M. Tabib-Azar

**An Automatic Program Suitable for On-wafer Characterization and Statistic Analysis of Microwave Devices**

G.W. Huang, D.Y. Chiu, K.M. Chen, Y.M. Deng and S.C. Wang

**Development and Application of a 1/F Transistor Noise Measurement Technique**

Clemente Toro, Jr., Alberto Rodríguez, Lawrence P. Dunleavy and William Graves, Jr.

**Evaluation of Coaxial V-Connector LRL Impedance Standards for the 65 GHz Vector Network Analyzer”**

Kyle Stickle and Yeou-Song (Brian) Lee

**A Method for Computing the Characteristic Impedance of Transmission Lines Using the Wave Cascade Matrix Formalism**

J. A. Reynoso-Hernández, R.Rangel-Rojo, M. Aceves, I. Zaldivar, L. E. Sánchez and M. Herrera

**Design Strategy of Custom Switch Relay Box**

Branko M. Narancic

**StatistiCAL VNA-Calibration Software Demonstration**

Dylan Williams, C.M. Wang and Uwe Arz