

Pre-Registration

Includes conference sessions, breakfast, lunch, exhibition, ARFTG membership, and ARFTG digest.

IEEE or ARFTG Members: \$180*
 Nonmembers: \$280*
 Students, Retirees: \$120*

Registration information can be found on line at: WWW.IMS2006.org. *Pre-registration rates

ARFTG CD-ROM

Complete collection of conference digests spanning 1982-2001

ARFTG Members: \$65 Nonmembers: \$90

Purchase at the conference or at www.arftg.org

Schedule of Events

<p>Joint Workshops : "High Speed Digital Signal Integrity"</p> <p>Practical Methods for Determining the Accuracy of Measurements – A Review of Techniques Both Old and New</p>	<p>Monday, June 12 TMA 8 am – 5 pm</p> <p>Monday, June 12 TMB 8 am – 5 pm</p>
<p>LSNA Users' Forum</p>	<p>Thursday, June 15 5 – 7 pm</p>
<p>ARFTG Microwave Measurement Conference</p> <p>•Continental Breakfast •Conference AM Sessions •Conference PM Sessions •Luncheon •Exhibition and Interactive Forum</p>	<p>Friday, June 16 Renaissance Parc 55 Hotel</p> <p>7 – 8 am 8 am – 12 noon 1:30 – 5 pm 12 noon -- 1:30 pm 7 am – 4 pm</p>

Conference Chair

Ken Wong
 Agilent Technologies, Inc.

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Technical Program Chair

Mohamed Sayed
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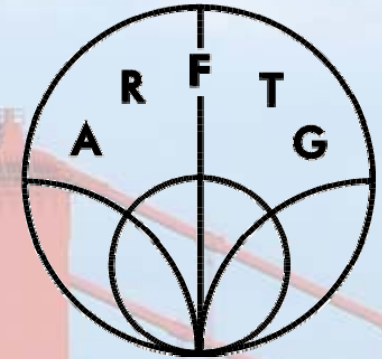
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Exhibits Chair

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To register:

www.ims2006.org



**67th ARFTG
 Microwave
 Measurement
 Conference**

"Measurements and Design of High Power Devices and Systems"

June 16, 2006

**Renaissance Parc 55
 Hotel
 55 Cyril Magnin St.**

San Francisco, CA



Measurements and Design of High Power Devices and Systems

The 67th ARFTG Microwave Measurement Conference will be held at the Renaissance Parc 55 Hotel on Friday, June 16, 2006, the anchor event of microwave week. The conference will include technical presentations, an interactive forum, and an exhibition.

The conference theme is “Measurements and Design of High Power Devices and Systems” with papers focusing on:

- ◆ Measurements and Design of High Power Devices and Systems (< 10 Watts)
- ◆ On-wafer Characterization and Tests of High Power Devices
- ◆ Nonlinear Measurements
- ◆ Large-signal Measurements
- ◆ Other Areas of Automated RF Measurements.

Also be sure to attend the joint ARFTG/IMS workshops being held. This year, ARFTG is co-sponsoring and co-organizing two workshops:

“**Practical Methods For Determining The Accuracy Of Measurements – A Review Of Techniques Both Old And New**” and

“**High Speed Digital Signal Integrity Workshop.**”

The measurement accuracy workshop will present industrial and metrology laboratory examples of measurement uncertainty analysis methods and practices. The high speed digital signal integrity workshop will present the latest advances in high speed digital interconnect design tools and measurement methods, key technology advances that are critical to high speed computer design.

An important part of all ARFTG Conferences is the opportunity to interact one-on-one with colleagues, experts and vendors in the RF and microwave test and measurement community. Starting with the continental breakfast in the exhibition area, continuing through the two exhibition/interactive forum sessions and the luncheon, there will be ample opportunity for discussion with others facing similar challenges.

Whether your interest is in global manufacturing test or one-of-a-kind metrology measurement, complex system design or simple circuit modeling, small signal S-parameter or large-signal non-linear measurements, phase noise or noise figure, DC or lightwave, frequency domain or time domain, you will find an interested party and most likely an expert among the ARFTG Conference attendees.

So, come and join us. You'll find that the atmosphere is informal, open and friendly.

Ken Wong
67th ARFTG Microwave Measurement Conference Chair



The ARFTG LSNA Users' Forum will be held Thursday afternoon from 5 to 7 PM, room TBA. This informal discussion group is devoted to sharing information and issues related to instrumentation utilized in vector large-signal network analysis of microwave circuits and systems. Topics include: Large-signal measurements utilizing nonlinear vector network analyzers (NVNAs), e.g. Microwave Transition Analyzers (MTAs) and Large-Signal Network Analyzers (LSNAs), NVNA measurements in conjunction with loadpull, sampling oscilloscopes, vector signal analyzers, and other test equipment used to perform large-signal measurements. To present or for more information, please contact Dominique Schreurs: Dominique.Schreurs@esat.kuleuven.ac.be or Kate Remley: remley@boulder.nist.gov. All are welcome!



•Oral Papers

Network Analyzers From Small Signal To Large Signal Measurements, Doug Rytting, Rytting Consulting, Santa Rosa, CA

Broadband High Power Amplifiers for Instrumentation, F.N.Sechi and M.Bujatti, Microwave Power, Inc. Santa Clara, CA

Power Accuracy And Source-Pull Effect For A High-Power RF Generator, Yufeng Han, Aaron Radomski, Yogi Chawla, John Valcore and Sal Polizzo, MKS-ENI Products, Rochester, NY

Large Signal S-parameters, Michał Odyniec, HRL Laboratories, Malibu, CA

Comparison of Load-Pull Measurements of an LDMOS with Two-Tone and Digitally Modulated Stimuli. Pejman Ghanipour, Shawn Stapleton., Simon Fraser University, Burnaby, b.C. Canada

Improving Loadpull Measurement Time by Intelligent Measurement Interpolation and Surface Modeling Techniques, Paul Hart, John Wood, Basim Noori, Peter Aaen, Freescale Semiconductor, Inc., Tampe, AZ

Measuring Autonomous Systems Using The Large Signal Network Analyser, Y. Rolain, W. Van Moer, J. Schoukens and R. Pintelon Vrije, Universiteit Brussel, Belgium

Using Simple Calibration Load Models To Improve Accuracy Of VNA Measurements, N M Ridler - National Physical Laboratory, UK, N Nazoa - LA Techniques Ltd, UK

Statistical Estimation Of The Propagation Constant In Multiline Calibrations, Kristoffer Andersson, Christian Fager Microwave Electronics Laboratory, Chalmers University of Technology, Göteborg, Sweden

Noncontacting Measurement Of Power In Microstrip Circuits K. Yhland and J. Stenarson, SP Swedish National Testing and Research Institute, Boras, Sweden

Nonlinear Microwave System Characterization Based on Higher Order Statistics, João Paulo Martins, Nuno Borges Carvalho and José Carlos Pedro Instituto de Telecomunicações, Campo Universitário, Aveiro, Portugal

SA Monte Carlo Analysis Of VNA-Based Time Domain Uncertainties J. Martens Anritsu Company, Morgan Hill, CA

De-Embedding Technique For S-Parameter Measurements Under High RF Power, Coupled To Thermal Imaging. Brice IVIRA Institute of Microelectronics - Electromagnetism and Photonics (IMEP). t, Fabien NDAGIJIMANA - Institute of Microelectronics, Electromagnetism and Photonics (IMEP).René-Yves FILLI - Ecole Nationale Supérieure des Mines de Saint-Etienne, France

The Locus Of Points Of Constant Output VSWR Around The Load Optimal Impedance: Evaluation Of Power Transistors Robustness, Floria Blanchet (1), Hind Bousbia (2), Denis Barataud (2), Jean-Michel Nebus (2), Denis Pache (1) (1) STM Microelectronics, Cedex, France; (2) Xlim - Dép. C²S²- CNRS UMR n°6172, Cedex, France

•Interactive Forum Papers

Understanding The Nonlinearity Of A Mixer Using Multisine Excitations, Koen Vandermot, Wendy Van Moer, Johan Schoukens and Yves Rolain, Vrije Universiteit Brussel, , Belgium

Coplanar Microwave Probe Characterization: Caveats And Pitfalls, Uwe Arz, Dirk Schubert, Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany

Multiport S-Parameter Calculation From Two-Port Network Analyzer Measurements With Or Without Switch Matrix, Holger Heuermann – Univ. of Applied Sciences Aachen, Institute of High Frequency Technology, Germany

Cold-Source Measurements For Noise Figure Calculation In Spectrum Analyzers, N. Olegi, J.M. Collantes - Electricity and Electronics Department, University of the Basque Country, Bilbao, Spain, M. Sayed - Microwave & MillimeterWave Solutions, Santa Rosa, CA

An Improved Multiline TRL Method J. E. Zúñiga-Juárez, J. A. Reynoso-Hernández, and M. C. Maya. Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE) División de Física Aplicada, Departamento Electrónica y Telecomunicaciones, Ensenada, B.C. México

Millimeter Wave Power Measurement Above 110 Ghz, Yuenie S. Lau - OML, Inc., Morgan Hill, CA

Modeling The Substrate Effect Of RF MOSFET's Based On Four-Port Measurement S.D. Wu, G.W. Hwang - National Nano Device Laboratories, Hsinchu, Taiwan, R.O.C.

Design Of Stabilization Networks For Measurement Of Unstable Active Devices, Charles Baylis - Center for Wireless and Microwave Information Systems Department of Electrical Engineering, University of South Florida, Bill Clausen - Modelithics, Inc., Tampa, Florida, Lawrence Dunleavy – USF & Modelithics, Inc., Tampa, Florida

Using The Goodness-Of-Fit To Validate The Power Sensor Linearity Specification, Yeou-Song (Brian) Lee – Anritsu Company, Morgan Hill, CA

An Enhanced Line-Reflect-Reflect-Match Calibration, Leonard Hayden, Cascade Microtech, Inc., Beaverton, OR

Optical Fiber Link 1-Pass 2-Port Antenna Measurement System, Satoru Kurokawa, Masanobu Hirose, Koji Komiyama, National Institute of Advanced Industrial Science and Technology, AIST, Ibaraki, Japan

The Applicability Of Noise Power Ratio (NPR) In Real Communication Signals, Khaled M. Gharalbeh, Hijawi Faculty of Engineering Technology, Yarmouk University, Irbid Jordan , Kevin G. Gard, Michael B. Steer, Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC

Field Profiling Of Resonant Structures By An Active Circuit Loop Method, Chunguang Jing - Euclid Techlabs, LLC, Solon, OH, Thomas Wong - Department of Electric and Computer Engineering, Illinois Institute of Technology, Chicago

Statistical Evaluation Of Finite Length Digital Modulation Sequences, P. Draxler-UCSD & QUALCOMM Inc., San Diego, P.M. Asbeck - University of California, San Diego, La Jolla, CA

Wideband Characterization Of A Doherty Amplifier Using Behavioral Modeling, D. Wisell (1,2,3), M. Isaksson (1,2), N. Keskkitalo (1,3), D. Rönnöw (1), 1 University of Gävle, Dept. of Electronics, Gävle, Sweden, 2 Royal Institute of Technology, Signal Processing Lab, Stockholm, Sweden, 3 Ericsson AB, Gävle, Sweden.

The Role Of Channel Frequency Response Estimation For The Measurements Of RF Impairments In OFDM Systems, Huseyin Arslan, Electrical Engineering Department University of South Florida, Tampa, FL and Anritsu Company, Morgan Hill, CA

Automatic Root Selection For The Unknown Thru Algorithm, J. Stenarson and K. Yhland SP Swedish National Testing and Research Institute, Boras, Sweden

Design And Evaluation Of Microwave System For Drying Of Textile, Jan Vrba, Marika Pourová, Ondrej Žák, Jan Vrba (jr.), Czech Technical University in Prague, Dept. of Electromagnetic Field Technická 2, Czech Republic,

Automated Rf Vco Characterization System, Jean-François NOWAKOWSKI - STMicroelectronics, Cedex, France

Estimation Of Uncertainty Of Calibration For Loop Antennas By Three-Antenna Method Using Automatic Network Analyzer, Masanori Ishii and Koji Komiyama - National Institute of Advanced Industrial Science and Technology, National Metrology Institute of Japan

Load-Pull Measurements Of Differential Amplifiers, Dietmar Köther, Jörg Berben, IMST GmbH, Kamp-Linfort, Germany

Calibration of Six-Port Reflectometers Using Null Double Injection, Dan Hui, Robert M. Weikle II, Charles L Brown, Department of Electric and Computer Engineering University of Virginia, Charlottesville, VA