



Characterization of Broadband Telecommunications Components & Systems

Session A: CATV 1 (8:30-10:30 AM)

- **RF Measurements for Broadband Networks (Keynote Address)**, S. Fluck (*Hewlett-Packard Co., Santa Rosa, CA*)
- **Proofing and Maintaining Upstream Cable Plant with Digital Signal Analysis Techniques**, T. Williams (*Holtzman Engineering, Longmont, CO*)
- **Procedure for Measurement and Characterization of Upstream Channel Noise in CATV Networks**, K. Haelvoet, D. De Bal, K. De Kesel, B. Vanlandschoot, & L. Martens (*University of Ghent, Belgium*)
- **Performance of QAM on a Hybrid Fiber-Coax CATV System**, C. Bianchi (*Sanders Associates*), G. Lentz (*Lucent Technologies*), & R. Welter (*CableVision NY*)

Session B: CATV 2 (10:30 AM - NOON)

- **CATV Tap and Splitter Linearity Improvement for Broadband Information Networks**, M.W. Goodwin (*Lucent Technologies, N. Andover, MA*)
- **Characterization of Cable Amplifiers for Broadband Network Applications**, J. Steel, A. Parker, & D. Skellern (*Macquarie University, Australia*)
- **Optimal Control of Intermodulation Distortion in Hybrid Fiber Coaxial CATV Systems**, G. D. Alley & Y. L. Kuo (*Lucent Technologies, N. Andover, MA*)
- **CATV topic to be announced**

Session C: LMDS & MMDS (1:00-2:30 PM)

- **LMDS System Design and Performance**, B. McKissock (*CellularVision USA, New York, NY*)
- **28 GHz LMDS System Deployment Considerations**, M. S. Shakouri (*Hewlett-Packard, Cupertino, CA*)
- **64 QAM MMDS with Digital Video Compression**, M. Frankel (*Decathlon Communications, Inc., Englewood, CO*)
- **Conversion Gain Measurement of an LMDS Transmitter**, L.R. Hoover & K. W. Burkhart (*Texas Inst., Dallas, TX*)

Session D: Component Characterization (3:00-5:00 PM)

- **Characterization of Miniature Millimeter-Wave Vivaldi Antenna for LMDS**, R. N. Simons & R.Q. Lee (*NASA, Cleveland, OH*)
- **Low Phase Noise Gunn Diode MIC VCOs for Application in Digital Radios**, E.M. Godshalk (*Redpoint Microwave, Newburg, OR*) & V.K. Tripathi (*Oregon State University, Corvallis, OR*)
- **Characterizing Components under Large Signal Excitation: Defining Sensible "Large Signal S Parameters"** J. Verspecht, M. Vanden Bossche, & F. Verbeyst (*HP, Brussels, Belgium*)

- **Transition Analyzer-Based Harmonic and Waveform Load Pull Measurements**, J.W. Bao, M. Shirokov, C.J. Wei, & J.C.M. Hwang (*Lehigh University, Bethlehem, PA*)
- **Automated Measurement Procedures of Three-Port and Four-Port Devices on Silicon Wafers**, F. Rérat, J.-L. Carbonéro, G. Morin, & B. Cabon (*SGS Thompson, Crolles, France*)
- **Performance Optimization of Ka-Band MMIC Power Amplifier Using On-Wafer Pulsed Power Test**, D. Yang, J. Yang, P. Nus-senbaumer, & M. Biedenbender (*TRW, Redondo Beach, CA*)

Interactive Forum (10:00 -10:30 AM & 2:30 -3:00 PM)

- **Determination of Bias Dependent Source Resistances in GaAs MESFETs under Cold-FET Conditions**, C.-H. Kim, K.-S. Yoon, M.G. Kim, J.-W. Yang, Jae-Jin Lee, and K.-E. Pyun (*Electronics and Telecommunications Research Institute, Taejon, Korea*)
- **Multiport Network Analyzer Self-Calibration: a New Approach and Some Interesting Results**, G.L. Madonna, A. Ferrero, and U. Pisani (*Politecnico di Torino, Italy*)
- **60 GHz On-Wafer Noise Parameter Measurements Using Cold-Source Method**, M. Lahdes, M. Sipalä, and J. Tuovinen (*Millimetre Wave Laboratory of Finland, Espoo, Finland*)
- **A Programmable Load for Noise Characterization**, L. Klapproth, M. Tempel, and G. Boeck (*Technical University of Berlin, Germany*)
- **Improved Measurement Procedure for Extremely Low Noise Figures of FETs in the Frequency Range below 3 GHz**, P. Heymann, R. Doerner, and H. Prinzler (*Ferdinand-Braun Institute für Höchstfrequenztechnik, Berlin, Germany*)
- **The Multi-State Radiometer: A Novel Means for Broadband Noise and Small-Signal Characterization of Microwave Semiconductor Devices**, W. Wiatr & M. Schmidt-Szalowski (*Warsaw University of Technology, Poland*)
- **Verification of the Noise Parameter Instrumentation**, V. Adamian (*ATN Microwave, Inc., N. Billerica, MA*)
- **Accurate Package Modeling based on S-Parameter Measurements**, F. Lin, M. Iyer, H. Ma, K.S. Tan (*Institute of Microelectronics, Singapore*) and M. Kasashima, J. Shibata, and H. Nakamura (*OKI Electric Industry Co, Tokyo, Japan*)
- **Non-Invasive Dual-Probe Time Domain Measurements of Incident and Reflected Waves on High-Speed Digital Chip Interconnects**, A. Barel, Y. Rolain, and A. Cumps (*Vrije Universiteit Brussel, Belgium*)
- **Microwave On-Wafer Measurements with Active Needle Probe Tips**, H. Heuermann (*Rosenberger Hochfrequenztechnik, Tittmoning, Germany*)

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