



AUTOMATIC RF TECHNIQUES GROUP

FALL 1990

NUMBER 7

ON-WAFER TESTING II DRAWS LARGE ATTENDANCE IN MONTEREY

Monterey served as the location for the 36th ARFTG Conference. The Monterey Sheraton was the host hotel. It is located a short distance from famous Cannery Row, the picturesque setting for a number of John Steinbeck's books.

John Barr, HP, was the Chairman of this very successful conference. There was a total of 91 attendees and 17 tables made up the exhibits part of the program. The technical presentations focused on practical on-wafer testing of MMICs and discrete devices. Traceability of measurements was addressed in a number of papers as the list below shows.

Comments Concerning On-Wafer Noise Parameter Measurements,
D. Waite, NIST

Improvements to On-Wafer Noise Parameter Measurements,
B. Hughes, HP

Results of an On-Wafer Noise Parameter Comparison,
J. Raggio, TRW

Verification of Calculations Made by the ATN NP5 Noise Figure Measurement System, M. Lucas, KSU

A Multi-Line Calibration for MMIC Measurements,
R. Marks, NIST

LRM and LRRM Calibrations with Automatic Determination of Load Inductance, A. Davidson & K. Jones, Cascade Microtech

MMIC Package Characterization With Active Loads,
K. Phillips, NIST

Progress Toward MMIC On-Wafer Standards, D. Williams, NIST

The Interpretation and Use of S-Parameters in Lossy Lines,
D. Williams & R. Marks, NIST

On-Wafer 3-Port Characterizations of Microstrip Transistors for MMIC Circuits, G. Martin, Boeing

Large Signal Second Order On-Wafer MESFET Characterization, A. Ferrero, Polytechnico di Torino

An Automated System for On-Wafer DC, S-Parameter, Power and Harmonic Measurements of Broadband GaAs, K. Kerwin, HP

Software for Automated On-Wafer Tests, G. Lewis, ITT

On-Wafer S-Parameter and Waveform Measurements,
H. Cronson, Mitre

An Investigation of the Characteristics of Coplanar Waveguide and Terminations for Application in On-Wafer Calibration Standards, B. Brim, HP

On-Wafer Characterization of CPW Discontinuities by a 1-Port Method, H.B. Sequeira, Martin Marieta

The Best Paper went to Dylan Williams and Roger Marks of the National Institute of Standards and Technology. "The Interpretation and Use of S-Parameters in Lossy Lines" was voted as best by the Conference attendees.

The conference digest, which includes all the papers presented, will be available upon printing. For copies of the digest, contact:

Henry Burger, ARFTG
1008 East Baseline Road
No. 955
Tempe, AZ 85283-1314

The digest is \$20 for ARFTG members and \$35 for non-members.

ARFTG MEMBERS RECOGNIZED:

The following people were recognized for their contributions during the Awards Banquet:

John Barr IV,	Chairman of the 36th Conference
Gary Roberts,	TPC of the 36th Conference
Jim Rautio,	35th Conference Best Paper Award
George Oltman,	Automated Measurements Career Award
David M. Bloom,	Automated Measurement Technology

Congratulations to all the individuals who have put in the extra effort to enhance the advancement of Automated RF Measurements.

STANDARDS COMMITTEE:

How do your measurements compare to the rest of industry? Are you within your stated uncertainty? Why don't you find out. Take advantage of the ARFTG Measurement Comparison Program (MCP).

The ARFTG MCP now has kits available in 7 mm, 3.5 mm and 2.92 mm connectors. If you wish to measure any of these kits contact the respective person below.

7 mm	Clyde Orrison	(214) 995-5032
3.5 mm	Dave Hopping	(707) 577-4029
2.92 mm	Steve Frei	(408) 778-2000 x4293

All components for the Type N kit have been received. Some modifications are being made to the software. The committee expects the kit to be ready by June.

If you have any questions about the ARFTG Measurement Comparison Program give Bob Judish a call at (303) 497-3380.

BUSINESS MEETING:

Executive Committee elections were held at this conference. The officers elected were Jim Taylor, President; Bill Pastori, Vice President; Gary Simpson, Treasurer and Frank Mendoza, Secretary.

Jim Rautio was newly elected to the Executive Committee while John Barr, Allen Rosenzweig and Ray Tucker return as re-elected EXCOM members.

EXECUTIVE SECRETARY LEAVES ARFTG TO ENJOY LIFE

Long time friend of ARFTG Bob Nelson called it quits after years of service. Bob, after retiring from NIST, then NBS, continued to work for ARFTG as Executive Secretary. He served in that position for many years. He said that he and his wife Donna will be touring the country and visiting friends and relatives. They travel exclusively by car.

Goodbye to Bob, the best dressed member ARFTG has ever had. Keep in touch!

HENRY BURGER TAKES OVER AS EXECUTIVE SECRETARY

It is time to review Robert's Rules of Order. Henry Burger, incoming Executive Secretary, will be keeping the EXCOM on their toes during the conference meeting. All indications show that Henry will not waiver from established procedure and will expect the EXCOM to do the same. Well, at least we won't be having those marathon meetings of the past. Welcome Henry, good to have you with us.

PROCEEDINGS SET-UP FOR MICRO-FICHE:

All proceedings except for the Dallas and Monterey have been set-up for micro-fiche. They will be fished by volume and will include Spring, 1982 (19th) through Spring, 1990 (35th).

An index of all technical papers will be sent to all paid members. More information will be made available as the micro-fiche process nears completion.

LONG RANGE PLANNING

37th CONFERENCE:

Date: June 13th & 14th, 1991 .
Location: Boston, Mass.
Hotel: Boston Sheraton
Theme: Validation of Design Through Measurement. The objective of experimental validation - to provide unbiased, quantitative data on the quality of design or the accuracy of design software with respect to specific criteria.
Chairman: Bob Judish, NIST, (303) 497-3380
TPC: Jim Rautio, Sonnet Software, (315) 453-3096

38th CONFERENCE:

Date: December 5th & 6th, 1991
Location: San Diego, California
Hotel: Sheraton, Harbor Island
Theme: On-Wafer III - Production & Volume Testing.
Chairman: Al Rosenzweig, Microwave Technology, (415) 651-6700
TPC: Larry Dunleavy, University of South Florida, (813) 974-2574

39th CONFERENCE:

Date: June 1st & 2nd, 1992
Location: Albuquerque, NM
Hotel: N/A
Theme: N/A
Chairman: Michael O. Little, Rome ADC, (315) 330-4381
TPC: N/A