

WORKSHOPS

Testing and Trimming of Miniature Batch Processed MICs

Sponsored by MTT-6: Technical Committee on Microwave & MMW Integrated Circuits

Date: Monday, May 28, 1984, 8:30 am to 5:30 pm

Room: San Francisco A/B, Hyatt Regency Hotel

Organizers: E. F. Belohoubek, RCA Laboratories, Princeton, NJ
D. Hornbuckle, Hewlett-Packard, Co., Santa Rosa, CA

Abstract

An increasing number of organizations are currently developing monolithic or miniature hybrid processes which are ultimately aimed at low-cost, batch processed microwave integrated circuits. Once past the curiosity-feasibility stage, the equally hard question of how to test and trim large numbers of very small circuits with good yield has to be answered. In many respects the testing of multistage or multifunction components on the same chip poses a substantially more challenging task than the two-port testing of standard hybrid MICs.

This workshop shall address the above and related problem areas. Several invited speakers will give general overviews in particular areas. Other, technically more detailed topics are scheduled for the afternoon. Technical demonstrations are encouraged and all participants of the workshop are expected to be willing to contribute to the general topic with short presentations.

Topics and speakers for the morning session are:

US Overview on Chip Testing, Don Esterich, Hewlett-Packard

US Overview on Tuning and Trimming, Gary Lerude, Texas Instruments

European Overview, Roger Pollard, University of Leeds

Japanese Overview, Hideaki Kohzu, NEC

Chip Design for Testability and Analysis, James Hutchins, Hewlett-Packard

High Frequency Coaxial Connectors—40 GHz and Beyond

Date: Tuesday, May 29, 1984, 8:30 am to 5:30 pm

Room: Embarcadero C/D Hyatt Regency Hotel

Organizer: M. A. Maury, Jr., Maury Microwave Corp., Cucamonga, CA

Speakers: Harmon Banning, Weinschel Engr., Gaithersburg, MD

Fred Bennett, Maury Microwave, Cucamonga, CA

Julius Botka, Hewlett Packard, Santa Rosa, CA

Bruce Donecker, Hewlett Packard, Santa Rosa, CA

Ernie Lattanzi, Kevlin Microwave, Woburn, MA

Mario Maury, Jr., Maury Microwave, Cucamonga, CA

John Morelli, Omni Spectra, Merrimack, NH

Bill Ofield, Wiltron, Mountain View, CA

Nick Worontzoff, Narda Microwave, Hauppauge, NY

Abstract

The purpose of this workshop is to bring together industry personnel who are vitally interested in high frequency coaxial connector technology. Connectors will be discussed covering the frequency range of 18 to 60 GHz, with special emphasis on the range of 40 to 50 GHz.

Papers will be presented on the current state-of-the-art of high frequency coaxial connectors by experts in the field, and a panel discussion will be held in the afternoon.

The following will be discussed:

1. Requirements and applications
2. Interface standardization and dissemination (interfaces are not proprietary).
3. Types of connectors; general purpose and precision for devices, components, cables, rigid lines, microstrip, etc.
4. Measurement and calibration standards.
5. Future needs and directions.

There is increasing interest in high frequency coaxial connectors, particularly due to MILSTAR. Each attendee is encouraged to participate in the discussions and manufacturers will be displaying and demonstrating current connectors and devices at the end of the workshop.

WORKSHOPS

Progress and Problems in Clinical Hyperthermia

Sponsored by MTT-10: Technical Committee on Biological Effects and Medical Applications

Date: Tuesday, May 29, 1984, 8:30 am to 5:30 pm

Room: Embarcadero B, Hyatt Regency Hotel

Organizer: Dr. Peter Fessenden, Stanford University, Stanford, California

Abstract

Hyperthermia continues to be a promising modality for treatment of cancer patients. Numerous preliminary studies are completed or well on their way. While these in general are encouraging, they have also pointed out many technical difficulties associated with clinical hyperthermia. This workshop will review progress and deal with some problems in the field.

Suspended stripline Filter Technology

Sponsored by MTT-5: Network Theory Committee

Date: Tuesday, May 29, 1984, 8:30 am to 5:30 pm

Room: San Francisco A, Hyatt Regency Hotel

Organizer: Peter La Tourrette, Los Altos, CA

Abstract

A full day's schedule has been planned to cover general considerations of suspended stripline filter technology, including design philosophies, CAD/CAM Aspects of design and details on the suspended stripline media. Presentations on material characteristics, packaging, cost factors, and actual software and hardware demonstrations will be made. Design details on high and low pass, band pass and notch filters will be covered.

Critical Inspection of Field-Theoretical Methods for Microwave Problems

Sponsored by MTT-15

Date: Tuesday, May 29, 1984, 8:30 am to 5:30 pm

Room: Embarcadero A, Hyatt Regency Hotel

Organizer: T. Itoh, University of Texas, Austin, TX

Workshop Chairman: J. W. Mink, Army Research Office, Durham, NC

Abstract

As monolithic circuits, millimeter-wave components and other increasingly complex structures are utilized by the microwave industry, elaborate analytical techniques are required for their characterization and design. During the past several years, significant advances have been made in analytical and numerical techniques. When the engineer is faced with new structures and applications, often the need arises to consider which technique should be employed, what pitfalls are associated with a particular method and what modifications are needed.

This workshop is designed for exchanging information among attendees and keynote speakers on the topical areas listed below. Keynote speakers will introduce the listed topics with an overall perspective followed by critical assessment based on their experiences. In addition to a question and answer period, opportunity will be given to selected members of the audience to present their views and experiences.

Keynote Speakers and Topics:

1. Spectral Domain Methods: R. Jansen, University of Duisburg.
2. TLM and Point Matching Method: W. Hoefer, M. Mey, University of Ottawa.
3. Lossy Systems: I. Wolff, University of Duisburg.
4. Open Structures: S. T. Peng, New York Institute of Technology.
5. Planar Circuits, Waveguide Models and Segmentation Method: R. Sorrentino, University of Rome.
6. Structures with Anisotropic Media: N. Alexopoulos, UCLA.

WORKSHOPS

Industrial Applications of Microwaves

Sponsored By: International Microwave Power Institute (IMPI)

Date: Tuesday, May 29, 1984, 8:30 am to 5:30 pm.

Room: San Francisco B, Hyatt Regency Hotel

Organizer: Dr. John Quine, Corporate R&D Lab, General Electric Co., Schenectady, NY

For additional information, contact:

John Osepchuk, Raytheon Research Div., Lexington, MA, (617) 860-3030

Abstract

Industrial applications with an emphasis on microwave heating, and the coordinating role of IMPI are reviewed. Included are technical expositions of tubes, ferrites and solid-state devices used in a variety of applications from large (200 kW) applications to the consumer microwave oven, and safety/RFI considerations. Advanced research on microwave ovens, the greatest market for microwave components (> 6,000,000 units per year) is being directed toward many challenging questions for microwave engineers, including the role of solid-state power generation. The Workshop is of value not only as an update to those involved in ISM applications but also to a variety of specialists interested in their possible role in non-military applications of microwave power.

Automated RF Techniques (23rd Conference)

Sponsored by: The Automatic RF Techniques Group in affiliation with MTT-12

Date: Monday and Tuesday, June 4 & 5, 1984, 8:30 am to 5:30 pm

Location: Luther Burbank Center, Santa Rosa, California

For additional information, contact the ARFTG Conference Chairman:

Wendell Seal, M/S S-2471,TRW, One Space Park, Redondo Beach, CA 90278, (213) 535-5155

Abstract

The conference's main topic will be Millimeter ANA's. Papers will be given on recent hardware and software developments. They include the main topic area and other computer-aided RF design and testing topics. Technical exchange will be accompanied by informal twenty minute talks.

A portion of the sessions is reserved for manufacturers to discuss and/or demonstrate new equipment that has been specifically designed for use in computer-aided RF design and test. The second day of the workshop will include a tour of Hewlett-Packard, Network Measurement Division, Santa Rosa, California.

Fees

Workshop registration should be made in advance along with symposium registration at \$90.00 for IEEE or ARFTG members and \$100.00 for non-members. At the symposium, the rate will be \$100.00 for members and \$110.00 for non-members. The fee includes two lunches, the ARFTG Banquet (which will be Monday evening, June 4) and Digest. Spouses of preregistered delegates are invited to the banquet at no additional cost.

The Conference Hotel will be El Rancho Tropicana, 2200 Santa Rosa Ave., Santa Rosa, Calif. The rate will be \$35.00 single and \$45.00 double, Friday through Wednesday. Reservations must be made directly to the hotel, (707) 542-3655. Please be sure to mention ARFTG to get these reduced preferential rates.