

## MESSAGE FROM THE 1996 $\mu$ APS CHAIRMAN

On behalf of the Industry Participation Committee, welcome to the 1996 IMS in San Francisco and to the first Microwave Application & Product Seminars ( $\mu$ APS) presented by the Symposium Exhibitors. The purpose of the new Microwave Application & Product Seminars is to provide a forum for topical presentations on microwave products, applications, services and markets at the level of the microwave practitioner, including design and manufacturing engineers and marketing and management professionals.

The sessions will be located on the exhibition floor. All registrants of either the exhibition or the traditional technical sessions are welcome to attend. Two parallel sessions will be held on Tuesday, Wednesday and Thursday. Individual presentations will be 20 or 45 minutes. These presentations have the option of including sales material and handouts.

These new seminars bring a new dimension to participants' ability to learn about new products and techniques required for the continuing growth of the microwave industry. We are looking forward to seeing you in San Francisco.

Martin I. Grace,  $\mu$ APS Technical Chairman  
Barry D. Bakner & Gary L. Koker,  
Industry Participation Committee Co-Chairmen

## 1996 $\mu$ APS SCHEDULE

The 1996 Microwave Application & Product Seminar will be held on Tuesday, Wednesday and Thursday, June 18-20, 1996 in conjunction with the 1996 International Microwave Symposium (IMS), at the Moscone Center, San Francisco. Sessions are open to all exhibition attendees. The papers will be presented in two parallel sessions in the exhibition area.

### Tuesday, June 18, 1996

1:00 PM-5:00 PM	Session A	Microwave and RF Devices
1:00 PM-4:30 PM	Session B	Test and Measurements Techniques

### Wednesday, June 19, 1996

9:30 AM-4:30 PM	Session A	Microwave and RF Devices
9:30 AM-4:30 PM	Session B	Microwave and RF Components

### Thursday, June 20, 1996

9:30 AM-2:00 PM	Session A	Computer Aided Design
9:30 AM-2:30 PM	Session B	Topics of Special Interest to Microwave & RF Engineers

## $\mu$ APS-MICROWAVE APPLICATION & PRODUCT SEMINARS-TECHNICAL PROGRAM

### TUESDAY, JUNE 18, 1996 EXHIBITION FLOOR, MOSCONC CONVENTION CENTER

#### MICROWAVE & RF DEVICES SESSION

##### GaAs MMICs for High Volume Consumer Electronics Applications

J. Patel, Anadigics, Warren, NJ

1:00 PM

##### 3 Volt, 2.4 GHz ISM Band Chip Set

R. Ruebusch, Celeritek, Santa Clara, CA

2:00 PM

##### A Subminiature Push-on Connector for High Density Packaging

M. Peeran, Connecting Devices Inc., Long Beach, CA

2:30 PM

##### HFET, PHEMT and GaAs MMICs and Foundry Services for the Communications Industry

M. Tessaro, Texas Instruments, Dallas, TX

3:00 PM

##### MMIC Power Amplifiers for Digital Cellular and PCS Applications

R. Ruebusch, Celeritek, Santa Clara, CA

3:30 PM

##### Passive Temperature Compensation for RF Amplifier Gain

J. Mazzochette, EMC Technology Inc., Cherry Hill, NJ

4:30 PM

#### TEST & MEASUREMENT TECHNIQUES SESSION

##### Matching Networks, Package Emulation, 65 RF Lines and Other Pyramid Probe Examples

K. Smith, Cascade Microtech

##### A Harmonic Load Pull System for Power Amplifier Design

M. Fennelly, ATN Microwave Inc., Billerica, MA

##### ALPS - Active Load Pull System for R&D and Production Testing

C. Tsironis, Focus Microwaves Inc., Point-Claire, Quebec, Canada

##### Automated Device Characterization System

J. Adamson, Maury Microwave Corp., Ontario, CA

##### RI 7100A Microwave ATE System

Roos Instruments, Santa Clara, CA

##### Multi-port Measurement Solutions

T. Kilbourne, Wiltron Co., Morgan Hill, CA

### WEDNESDAY, JUNE 19, 1996 EXHIBITION FLOOR, MOSCONC CONVENTION CENTER

#### MICROWAVE & RF DEVICES SESSION

##### Advance III V Semiconductor Wafer Products from TLC

T. Childs, TLC Precision Wafer Technology, Minneapolis, MN

9:30 AM

##### Silicon Power Transistors for Handheld Wireless Communications

D. Moy, Hewlett-Packard, Newark, CA

10:30 AM

##### The HP Components Solutions for Low Noise Block Downconverters

S. Yajima, Hewlett-Packard, Newark, CA

11:00 AM

##### Low Cost, High Performance GaAs MMICs for Commercial Markets in Millimeter-wave and Wireless Communications

R. Pinato, TRW, Redondo Beach, CA and J. Neal, RFMD, Greensboro, NC

#### MICROWAVE & RF COMPONENTS SESSION

##### High Performance RF Products in Wireless Applications

D. Johnson and R. Buswell, Watkins-Johnson Company, Palo Alto, CA

##### GPS Preamplifiers, Filters, Limiters and Antennas

J. Frost, Daden-Anthony Associates, San Clemente, CA

##### Radar Sensors for Industrial and Vehicular Applications

R. Knox, Epsilon Lambda Electronics, Geneva, IL

##### IQ Vector Modulator - The Ideal Control Component

M. Tuckman, General Microwave Corp., Amityville, NY

**UAPS-MICROWAVE APPLICATION & PRODUCT SEMINARS-TECHNICAL PROGRAM**

**WEDNESDAY, JUNE 19, 1996**  
**EXHIBITION FLOOR, MOSCONE CONVENTION CENTER**

**MICROWAVE & RF DEVICES SESSION**

	12:00 PM	<b>MICROWAVE &amp; RF COMPONENTS SESSION</b>
<b>Advanced MMIC Control &amp; Converter Products for Personal/Infrastructure Communications Circuits</b> N. Hildreth, Hittite Microwave Corp., Woburn, MA	12:30 PM	<b>Application Specific RF Components for High Volume Markets</b> R. Setty, Mini-Circuits, Brooklyn, NY
<b>Replicating a Family of Si MMIC Darlington Amplifiers</b> J. Moniz, M/A-COM, Lowell, MA	1:00 PM	<b>1/2 Watt "Power Mixers" Extend the Dynamic Range of Front-Ends with LNAs</b> D. Neuf, Miteq Inc., Hauppauge, NY
<b>VLNAs for DCS/PCS Applications</b> M. Eron, M/A-COM, Lowell, MA	1:30 PM	<b>Surface Mount Coaxial Connector "SMCC"</b> B. Rosenberger, Rosenberger Hochfrequenztechnik, Tittmoning, Germany
<b>Ultralinear Amplification for Wireless Communications</b> MicroWave Technology Inc., Fremont, CA	2:00 PM	<b>Trimmer Capacitors, The Other Trimmers</b> S. Orman, Sprague-Goodman Electronics, Westbury, NY
<b>Low Cost Monolithic Microwave Amplifiers</b> R. Setty, Mini-Circuits, Brooklyn, NY	2:30 PM	<b>VCOs for Wireless Applications</b> U. Rohde and S. Joshi, Synergy Microwave Corporation, Paterson, NJ
<b>Recent Advances in Silicon RF Power MOSFETs</b> J. Walker, Semelab PLC, Lutterworth, UK	3:00 PM	<b>Low Profile RF Components for WLAN and PCS</b> M. McWhorter, TRAK Microwave Corp., Tampa, FL
<b>High Linearity Power Amplifiers for Space and Digital Phone Applications</b> J. Griffiths, Raytheon Microelectronics, Andover, MA	3:30 PM	<b>Phased-Array Circulators</b> S. Cheng, TRAK Microwave Corp., Tampa, FL
	4:00 PM	<b>Wideband, Low Noise Commercial Frequency Synthesizers for SATCOM and Microwave Point-to-Point Applications</b> M. Simpson and R. Patson, Verti-Com Inc., Santa Rosa, CA
		<b>Selecting and Specifying Trimmer Capacitors</b> B. Kapner and D. Ditya, Voltronics Corp., Danville, NJ

**THURSDAY, JUNE 20, 1996**  
**EXHIBITION FLOOR, MOSCONE CONVENTION CENTER**

**COMPUTER-AIDED DESIGN SESSION**

<b>Technology Breakthroughs for Fast CAE Solutions to RF IC Design Problems</b> L. Williams, Ansoft Corp., Pittsburgh, PA	9:30 AM	<b>SPECIAL INTEREST TOPICS SESSION</b>
<b>Windows Based, Low Cost Three-dimensional Electromagnetic Software</b> J. Zheng and J. Roth, Bay Technology, Aptos, CA	10:00 AM	<b>Understanding the Power Handling Capability of High-Temperature Superconducting Microwave Circuits</b> C. Wilker, DuPont Superconductivity, Wilmington, DE
<b>Microwave Harmonica 7.0 Brings Wireless Circuit Simulation Capability to the PC</b> J. Gerber, Compact Software, Paterson, NJ	10:30 AM	<b>Subsystem to Enhance Base Station Sensitivity and Selectivity</b> S. Garrison, D. MacMillan and G. Liang, Conductus Inc., Sunnyvale, CA
<b>SPICE Modeling of a Silicon Bipolar Junction Transistors</b> T. Boles, M/A-COM, Lowell, MA	11:00 AM	<b>New Copper-clad Laminate Materials for Wireless Applications</b> C. Zimmerman and C. Ludwig, Glasteel Industrial Laminates (GIL), Collierville, TN
<b>The Benefits of using MSC's Predictive Engineering Software, <math>\mu</math>Wave Lab</b> J. DeFord, MacNeal Schwendler Corp., Milwaukee, WI	11:30 AM	<b>Commercialization of High Temperature Superconductors</b> J. Simmons, Superconductor Technologies, Santa Barbara, CA
<b>Microwave CAD, including EM Optimization and Modeling of Arbitrary Geometrics</b> J. Bandler, Optimization Systems Associates, Ontario, Canada	12:00 PM	
<b>Microstripes - A New Volume Meshing Simulator Based on The TLM Method</b> D. Johns, Sonnet Software Inc., Liverpool, NY	12:30 PM	<b>Progress in Ceramic Microwave Dielectric Materials</b> R. Brown, Morgan-Matroc Unilator Division, Wrexham, UK
<b>Precise Quantitative Evaluation of Electromagnetic Analysis Error</b> J. Rautio, Sonnet Software Inc., Liverpool, NY	1:00 PM	<b>Low Noise Amplifiers</b> J. Siddiqui, Miteq Inc., Hauppauge, NY
<b>Ceramic Products in Microwave Applications</b> H. Masuda, SMI Ceramics America, Santa Clara, CA	1:30 PM	<b>Lateral Diffused MOS RF Transistors</b> S. Leong, Polyfet RF Devices, Camarillo, CA