

Message from the General Chairman



On behalf of the Steering Committee, I would like to welcome you to the 1997 IEEE Radio Frequency Integrated Circuits (RFIC) Symposium. This new and exciting Symposium expands from our previous Microwave & Millimeter-wave Monolithic Circuits (MMWMC) Symposium. The MMWMC Symposium was created in 1982 to provide a focused forum for emerging MMIC technology. For the past 15 years, this Symposium encouraged the rapid advancement of the technology and facilitated its application in DoD and commercial systems. Today, approximately half of all papers presented during Microwave Week are related to the monolithic technology. We are very pleased that the MMWMC Symposium has served our society and membership well and has made a significant impact on our technology development.

After observing the technology and business changes in the wireless industry and the high-volume production community, the Steering Committee began to implement the re-focus of the Symposium two years ago. The feedback we received from previous attendees and our membership is that there is a need for more emphasis on Si and GaAs RFICs for commercial applications. With all of this input taken into account, we decided to expand the MMWMC Symposium in several ways: to cover both Si and GaAs technology instead of GaAs only, to provide the high volume and low-cost technique emphasis, and to include both R&D and production development.

To reflect this expansion of the Symposium's scope, we changed the symposium name to Radio Frequency Integrated Circuits (RFIC) Symposium. We expect to bring you the newest developments in highly integrated ICs; ICs for wireless communications, GPS and automotive radars; Si bipolar, CMOS, BiCMOS and GaAs design techniques; design for manufacturability; and RFIC packaging.

This is the first year of the RFIC Symposium. I hope that you will hear the presentations of many interesting papers and learn new technology from the technical sessions, Sunday Workshop and Monday Panel Session. I also hope that you will meet many new friends. To ensure the continued success of this symposium, I would like to receive your feedback on areas that we can improve. If you like this Symposium, please tell your colleagues and invite them to attend and submit a paper. I look forward to seeing you in Denver.

Louis C.T. Liu, General Chairman

Message from the Technical Program Chairman



On behalf of the Technical Program Committee, it is my pleasure to welcome you to the 1997 IEEE Radio Frequency Circuits (RFIC) Symposium. This new and exciting symposium focuses on highly integrated ICs or subsystems that include RF functions at any frequency.

This year we have put together an outstanding conference for you. Recent advancements in RFICs suitable for wireless and other communication applications are highlighted at this symposium. Original papers describing low cost silicon and GaAs MMICs and subsystems for commercial and military applications are also announced at this conference.

Five invited talks from senior technologists from Europe, Japan and USA will provide additional impetus to this new symposium. These talks cover trends and changes in the wireless communication industry, Radio Frequency Identifications (RFID), Si MMIC applications, RFIC transceivers, and highly integrated ICs for GSM and DECT.

We have also arranged a focused session consisting of six papers on silicon MMICs to bring you the latest in the silicon RFICs.

A total of 26 contributed papers were selected for oral presentations from 51 papers submitted to RFIC. An additional 4 papers were chosen for the Open Forum. International exposure of this conference is evident from the fact that about half of the papers submitted were from outside the continental US.

The technical papers have been arranged into three parallel sessions on Monday. On Tuesday we have joint sessions with IMS subcommittees on Monolithic Technology and Low Noise Amplifiers. Open-forum papers will be presented on Wednesday afternoon. Due to the fixed time schedule we could not accommodate many good papers. I thank all the authors who submitted the papers to this symposium and encourage them to continue to submit papers in the future as well.

This year we are co-sponsoring three workshops, two on Sunday and one on Friday. The Sunday workshops are on 'Low Voltage Low Power Consumption RFICs for Wireless Communication Products' and 'Measurements for Silicon and GaAs Telecommunications ICs.' Friday workshop addresses 'Epitaxial Material Manufacturing for HEMT and HBTs.' The panel session on Monday discusses device technology choices for commercial portable power amplifiers.

The TPC members contributed significantly to bring you a top quality program for this symposium. I extend my sincere thanks and appreciation to each member of the TPC. Last but not least, I want to thank the authors, the invited speakers, and the panelist for enabling us to present you an exciting symposium.

I look forward to seeing you in Denver, Colorado.

Vijay Nair
Technical Program Committee Chairman
1997 IEEE RFIC Symposium