

Microwave Application Award 2016

This award recognizes an individual or team for outstanding application of microwave theory and techniques. This year's recipient is **are Ulrich L. Rohde**

"For significant contributions to the improvement of low-noise oscillator performance"

and Doug Rytting and John Barr

"For the development of commercial vector network analyzer technology, as embodied by the HP 8510"



John Barr IV

received a BSEE from Georgia Institute of Technology in 1971, a MSEE in 1974 from Stanford University and a MS in Engineering Management in 1982, also from Stanford. After Co-Oping from 1967-70 with Scientific Atlanta, he joined Hewlett Packard in 1971. He retired after 37 years from Agilent Technologies / Hewlett Packard in 2008 after serving in various engineering R&D roles, including as the R&D Manager/Director for Agilent's Wireless Semiconductor Test Solutions.

John was involved in the development and design of RF and Microwave component measurement systems, including Vector Network Analyzers (HP8505, HP8501, HP8510A/B/C/D/E/T/XF and HP85108). Initially this included design of RF downconvertors, intermediate frequency detectors and in the automation of these systems with IEEE 488 (HP-IB). For the HP8510 this evolved into the development of real-time measurement algorithms, vector error correction, time domain conversion and later multi-parameter measurement systems. In the mid-80's John started transitioning to managerial roles of various evolution enhancements of the HP8510 VNA program and then leading the development teams of high throughput manufacturing semiconductor test systems (Agilent 84000 / 93000 RF) for RFICs and Wireless Communications ICs.

John published twelve papers on measurement techniques, received five patents, participated in over ten conference workshops and contributed to four NEMI roadmaps. He has been a reviewer for T-MTT, L-MWGL, T-I&M, and Proceedings of the IEEE and served on the International Microwave Symposium (IMS) TPRC for over twenty-five years.

John is a Life Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and has been active in the Microwave Theory & Techniques Society (MTT-S) serving as AdCom member (1994-2005) and as President (2002). Presently he is MTT-S Memorials Chair, a member of IMS Site Inspection & Negotiation Committee, AdCom Parliamentarian and a longtime member of MTT-11. He served as the General Chair of IMS2006, was a member also of IMS1996 and IMS2016 Steering Committees and General Chair for RWW2012. In 2012 received the MTT-S' N. Walter Cox Service Award.

At the IEEE institute level, John was a member of the IEEE Board of Directors in 2013-2014 while serving as the IEEE Treasurer. He previously served on the Technical Activities Board (TAB), the Publication Services and Products Board (PSPB), TAB/PSPB Products & Services Committee and the IEEE Finance Committee.

Additionally, he has been active in Automatic Radio Frequency Techniques Group (ARFTG) since 1979, was a member of the ARFTG Executive Committee from 1984 to 1996, President between 1987-1989 and received in 2012 the ARFTG Career Award.