

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"



Doug Rytting

has spent 50 years designing and developing methods to improve the accuracy of microwave and other measurements, making it easier to confirm design goals and improve manufacturing yield, test time and cost. In the course of his work at Hewlett Packard and later at Agilent Technologies, he was involved with virtually all microwave network analyzers introduced since 1966.

Mr. Rytting's network analyzers test the design of components and devices used in high-frequency electronics including communications, satellite, radar and other systems to ensure they meet their design objectives. He also developed key new hardware designs and measurement applications for these analyzers.

In the 1960s, Mr. Rytting's earliest designs were in the first network analyzers introduced by Hewlett Packard. Later, he managed the development of automatic network analyzers, RF network analyzers, and microwave network analyzers. He helped support the architecture design of HP's microwave performance network analyzer family and developed new measurement methods, instrument and system block diagrams and error correction techniques in the microwave industry for Agilent.

Mr. Rytting was involved in the development of error correction methods, accuracy analysis, nonlinear measurements and general measurement techniques in the microwave industry, all of which revolutionized measurements for microwave network analysis. He introduced new concepts and algorithms that form the basis for many modern microwave network analyzer calibrations. He has also served on various advisory boards and committees for universities, government agencies, and industry.

Mr. Rytting retired from HP/Agilent Technologies in 2003. He has a bachelor's degree from Utah State University in Logan, where he received the Outstanding Senior Engineer Award. He also has a master's degree from Stanford University, California.

Mr. Rytting is an IEEE Member. He received the Automated Measurements Technology Award in 1984 and Career Award in 1998 from the Automatic FR Techniques Group (ARFTG), the College of Engineering Distinguished Alumnus Award from Utah State University in 2001 and from 2004-2006 and he was selected as an IEEE Distinguished Microwave Lecturer. And was the recipient of the 2007 IEEE Joseph F. Keithley Award in Instrumentation and Measurement.