

Joint Meeting
IEEE Orlando Section and the IEEE Melbourne Section
and the Radio and Wireless Symposium incorporating WAMICON
Tuesday January 22, 2008, 7:00 - 7:30 PM Reception, 7:30- 8:00 PM Talk
Rosen Centre, Grand Ballroom D
9840 International Drive
Orlando, Florida 32819

**TEST TOOLS FOR THE DEVELOPMENT AND
CHARACTERIZATION OF WIRELESS POWER AMPLIFIERS**

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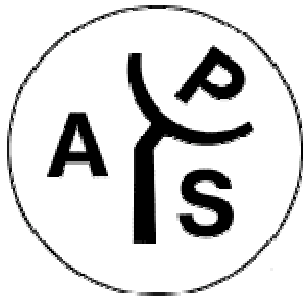
2008 IEEE Radio
and Wireless
Symposium

Yesterday's spectrum analyzer can not keep pace with modern wireless signals. New Real-Time Spectrum Analyzers can meet the challenge. Spectral RF distortions from power amplifiers can now be controlled in real-time using digital control loops with much higher spectrum performance and efficiency compared to analog techniques. Cost advantages and manufacturing efficiency have been gained by pushing digital circuitry as far up the RF chain as technology will allow. Yesterday's narrow band, single-carrier, triple conversion systems are being replaced with wide band, multi-carrier transmitters enabled by digital signal processing (DSP) and DACs that produce direct IF, or even direct RF outputs to the RF amplifier. And waveforms are now digitally pre-distorted for maximum efficiency and tight spectrum control.



These innovative RF systems and techniques create new challenges for the design engineers and system operators who must troubleshoot and characterize them. Troubleshooting an RF design now requires the ability to trace a signal from a DSP-generated base-band to a wide-band digitally modulated RF output. These digitally generated RF signals create new, transient faults that are difficult to discover, trigger on and measure.

This presentation shows how to use a modern Real-Time Spectrum Analyzer (RTSA) to characterize modern RF systems. We will cover basic vector and spectrum measurements, characterizing wide band Digital Pre-Distortion systems and troubleshooting high-bandwidth systems.



Who should attend?

Engineers that want to keep current with wireless devices of all types (handset, base station, broadcast, and Radar) as they migrate to adaptive linearization technologies. Technology experts, research, design, and test engineers who are required to design, debug, and characterize wireless power amplifier devices will benefit from this seminar. Learn about the new instrument and measurement solutions that are available to simplify your measurement and design challenges.



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