



LOS ANGELES CHAPTER MEETING ANNOUNCEMENT

Thursday, November 5, 2009

Demystifying Radio Frequency Fields and Radio Frequency Components

TIME:

6:00 PM Dinner
7:00 PM Presentations

DATE:

November 5, 2009

LOCATION:

Hilton Garden Inn LAX
2100 E. Mariposa Ave.
El Segundo, CA 90245
(310) 726-0100

Free with RSVP to:

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Radio frequency engineering is often seen as a black art filled with baffling phenomena and components such as propagation modes, quarter wave stubs and mismatch ratios. This presentation aims to remove the bafflement by taking a lighthearted look at the history of the discovery of RF fields (EM waves), how they were predicted, how they were discovered, their behavior, and finally how the more common RF components actually work.

Aiding the 17025 Laboratory Accreditation Process by Capturing Key Performance Data on RF Power Amplifiers

The technical case can be made that there is no need for periodic calibration of the RF power amplifier in a RF immunity system. This is because the new IEC61000-4-3 Edition 3 stipulates checks on amplifier harmonic and compression levels at all test frequencies, and if met, the immunity system is deemed compliant. However, this leaves the situation where the most expensive piece of test equipment in the set up has no dedicated calibration type data on file. This presentation describes and explains the more baffling amplifier performance metrics, and provides guidance on a simple way of capturing the metrics using test instruments available at most test laboratories. The captured data can then be presented during the 17025 audit under the trend analysis methodology.

Presenter: Tom Mullineaux, MILMEGA Limited

Tom is an RF engineer with experience in leading RF design teams in the design and development of high-power microwave amplifiers for use in defense and commercial applications. Tom received his degree in electrical and electronic engineering from Portsmouth University, England in 1989. He has delivered both practical and theoretical presentations to IEEE EMC Society sponsored events including 'Linearization of an RF Amplifier for Immunity Testing' at the 2004 Santa Clara EMC Symposium, and has had many technical articles published, including 'Rating Power Amplifiers for RF Immunity Testing – Evaluation Engineering Magazine , 2003; 'Selecting antenna/power amplifier combinations for the coming new RF immunity standards' Interference Technology Magazine 2004; 'Using radar amplifiers for automotive RF immunity tests' Evaluation Engineering Magazine, 2005.

Local Area Map to Meeting Location

