

Press Release - 28th March 2008

## **SHORT-RANGE RADIO: WHAT'S LEGAL, TECHNICALLY POSSIBLE, AND AVAILABLE**

*The Radio Solutions 2008 conference (May 28-30th at ETSI, Sophia Antipolis, France) addresses these three aspects of short-range radio in general terms and in particular industry sectors:*

- RFID in airports and retail
- Intelligent Transport Systems
- Telemetry and automatic meter reading
- Wireless medical applications
- Home automation
- Cordless microphones

The conference concludes with some high-level presentations on new developments in technology, including:

### **Near-field communication (developments in RFID at 13.56MHz)**

A presentation from David Birch at Consult Hyperion describes this new communications technology about to enter the consumer marketplace. It is a short-range zero-configuration wireless interface that will dramatically enhance interaction between compatible consumer devices when they are brought within a few centimeters of one another: a wave or touch will establish a connection, so that a PC can transfer information to a PDA or a digital camera can send photos to a TV set, for example. There are two key reasons why NFC is so important. Firstly, the organizations behind it (e.g. Sony and Philips) come from the consumer electronics world, so NFC is going to be built into many mass-market platforms. Secondly, there is a specific mass-market-powered consumer electronic device that is in place and ready to exploit NFC to the hilt: the mobile phone.

### **Processor extensions for software-defined radio**

Francisco Barat from NXP Semiconductors will describe how changes made to a DSP to retarget it to software-defined radio baseband processing result in up to a sevenfold increase in performance while reducing energy consumption by 40%. The basic changes are the addition of two modes that operate on sub-word data: complex data and dual SIMD (single instruction multiple data). The first mode modifies the data path so it can operate on complex data with half the processor width per component, using complex arithmetics but minimal hardware. In the second mode, the processor registers are divided in half, allowing two sub-words to be stored in a processor register.

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#### **Low Power Radio Association**

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**Propagation of radio waves in buildings**

Since his presentation on this subject at Radio Solutions some years ago, Walter Vollenweider of Siemens Schweiz has developed a model for measuring path loss in buildings based on a further series of measurements. The model usually used for open terrain shows deficiencies in built-up areas and is quite useless in buildings. Mr Vollenweider will compare his measurement results with expected values and explain how the fading can be more accurately approximated.

Full abstracts for most of the presentations are now available on [www.lpra.eu](http://www.lpra.eu), along with the conference timetable and booking form.

A small exhibition running alongside the conference features companies from around Europe showing transceiver ICs, radio modules, embedded and external antennas, design services, and automatic meter reading systems for water, waste, sewage, and food temperature monitoring.

Radio Solutions is sponsored by the Low Power Radio Association (LPRA). For more information see [www.lpra.eu](http://www.lpra.eu) or contact the organizer: [stella@stiegeler.f2s.com](mailto:stella@stiegeler.f2s.com).

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*Note to editor: you are warmly invited to attend this conference free of charge. Please use the registration form on [www.lpra.org](http://www.lpra.org), indicating in the "Comments" box that you are from the press and the name of your publication.*

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