NXP and EnOcean Use NFC to Simplify Energy Harvesting Wireless in the Smart Home

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NXP demonstrates complete wireless smart lighting network at CES 2014, including EnOcean energy harvesting switch, RGB LEDs, and bridge to the Internet of Things

Eindhoven, Netherlands and Las Vegas, Nevada, January 8, 2014 – At the 2014 International CES, NXP Semiconductors (NASDAQ: NXPI) is demonstrating a wireless smart lighting network designed for ease of installation in the home. The demo includes an energy harvesting switch (battery-less, no wires) developed by EnOcean, a world leader in energy harvesting wireless solutions. The switch uses the NXP JN5161 wireless microcontroller and implements the ZigBee® Green Power feature.

Using NFC (Near Field Communication) technology, the EnOcean switch can be added to a home network simply by tapping an NFC-equipped mobile phone on the gateway to collect important network parameters, and then using the phone to pass them on to the switch. Designed by NXP, the gateway connects devices using ZigBee or JenNet-IP™ to the Internet via an existing home Wi-Fi router. The gateway simply plugs into the home router via an Ethernet port, and supports ZigBee Light Link, ZigBee Home Automation and JenNet-IP for wireless communication, as well as NFC for commissioning. Completing the demo are wireless color LEDs and tunable white dimmable LED lamps, which can also be added to the network using NFC and then controlled via an Android™ smartphone. The smart lighting demo is featured in the NXP booth at CES 2014 (Central Plaza 9) and a video is available here: http://youtu.be/iWKVYO1FlLg.

"Wireless smart light bulbs are now available from major retailers in the US. The challenge now is to ensure that setting up and expanding a wireless smart lighting network is as painless as possible for the everyday home user. NFC provides a quick, secure and easy way to add new devices to home networks and to the broader 'Internet of Things.' We're excited to be working with EnOcean and other partners in fine-tuning the overall user experience – and ultimately helping consumers to control their lighting and energy use more effectively," said Thomas Lorbach, marketing manager, RF connectivity solutions product line, NXP Semiconductors.

"We are very proud to partner with NXP, one of the world leading semiconductor companies, in exploring further energy harvesting wireless sensor solutions. It's great to see how our joint technological forces result in next generation solutions that bring energy harvesting wireless possibilities and benefits to the specific requirements of the consumer market," said Matthias Poppel, Chief Operation Officer, EnOcean. "Very quickly, we were able to develop a battery-less wireless switch module prototype for the first time operating a 2.4 GHz radio and NFC powered by energy harvesting. Such new technologies add to EnOcean's more than 12 years

of experience in energy harvesting, ultra-low power wireless communication and energy management thus enabling easy installation and exciting new use cases for our sensor solutions."

The reference design for the 802.15.4 to Ethernet bridge, which is based on the JN5168 wireless microcontroller, is available immediately. The RGB and tunable white LEDs, which offer very high brightness and color saturation, use NXP's patented sensorless sensing technology, first demonstrated at CES 2013.

Links

- VIDEO: NXP & EnOcean energy harvesting wireless switch demo at CES 2014 (ZigBee & NFC): http://youtu.be/iWKVYO1FlLg
- NXP Wireless Connectivity TechZone: http://www.nxp.com/techzones/wireless-connectivity

About EnOcean

EnOcean is the originator of patented energy harvesting wireless technology. Headquartered in Oberhaching, near Munich, the company manufactures and markets energy harvesting wireless modules for use in building and industrial applications as well as in further application fields such as smart home, smart metering, logistics or transport. EnOcean technology combines miniaturized energy converters with ultra-low-power electronics and robust RF communication. For 10 years, leading product manufacturers have chosen wireless modules from EnOcean to enable their system ideas. EnOcean is a promoter of the EnOcean Alliance, a consortium of companies from the world's building sector that has set itself the aim of creating innovative solutions for sustainable buildings. Self-powered wireless technology from EnOcean has been successfully deployed in more than 250,000 buildings worldwide. The EnOcean wireless protocol is standardized internationally as ISO/IEC 14543-3-10, which is optimized for wireless solutions with ultra-low power consumption and energy harvesting. For more information visit www.enocean.com.

About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ: NXPI) creates solutions that enable secure connections for a smarter world. Building on its expertise in High Performance Mixed Signal electronics, NXP is driving innovation in the automotive, identification and mobile industries, and in application areas including wireless infrastructure, lighting, healthcare, industrial, consumer tech and computing. NXP has operations in more than 25 countries, and posted revenue of $4.36 billion in 2012. Find out more at www.nxp.com.