Philips announces industry's first RFID chip solution to support next-generation EPCglobal specification

April 1 2005

Royal Philips Electronics today announced that it has produced, supplied and - in cooperation with its industry partners - tested first engineering samples of an RFID chip compliant with EPCglobal's Ultra High Frequency (UHF) Electronic Product Code (EPC) Class 1 Generation 2 (G2) standard. With an increasing number of mandates from major retailers and organizations such as the Department of Defense, consumer packaged goods (CPG) companies and other suppliers around the world are moving towards implementing RFID technology in their supply chains. Philips' UCODE EPC G2 chip features better performance characteristics than any other solution to date and provides regulatory compliance to simplify worldwide implementations of RFID.

With the availability of Class 1 G2 solutions, both prior UHF technology solutions (Class 0 and Class 1 Generation 1) standardized by EPCglobal can now be replaced. Mandating organizations, such as major retailers and their suppliers, can now install readers and use tag solutions that support this worldwide standard. EPC G2 also addresses the differing regional regulatory environments for the UHF bands allocated for RFID, allowing UHF to be used worldwide enabling these organizations to deploy a unified RFID supply chain infrastructure throughout the world.

In order to reduce the time to market of solutions based on the EPC G2 specification, Philips has created a taskforce of companies to develop an end-to-end solution. The companies taking part in this initiative are

ASK, Checkpoint, Deister Electronic, Feig, Intermec, Omron, SAMSys, Thingmagic, UPM Rafsec and X-Ident. These organizations have committed to develop labels, hardware and solutions based on Philips' EPC G2 product during Q2 2005, aiming for availability of the first components in the following quarter. In addition, retailers such as METRO Group have committed to participate in the EPC G2 task force to evaluate the technology as soon as it is available.

"RFID is already having a positive impact on our supply chain, and the new EPCglobal standard has the potential to enable us to further benefit from the technology" said Dr Gerd Wolfram, managing director, METRO Group. "The global nature of the EPCglobal Class 1, Generation 2 specification gives us the potential to deploy RFID across our multinational supply chain, enabling us to benefit from increased efficiency, and to pass those benefits on to our customers and suppliers.

"Our approach has been aimed at bringing the benefits of the EPC G2 standard into the marketplace as early as possible. Our UCODE EPC G2 is helping retailers and suppliers to be ahead of the game," said Jan-Willem Reynaerts, general manager for RFID at Philips Semiconductors. "We will continue to lead in developing RFID technology that helps companies to be effective worldwide, and are pleased to work with EPCglobal to ensure that our products comply with its standards."

UCODE EPC G2 features a one-time programmable memory for the 96-bit EPC, covers all mandatory commands and provides a selection of optional commands as specified in the EPCglobal Class 1 G2 standard. The chip uses an anti-collision algorithm that enables the reading of up to 1,600 labels per second under current US regulations, and up to 600 labels per second under current European regulations. Through a flexible implementation of the application field identifier (AFI), the IC will be able to support both EPCglobal and pending ISO 18000-6c coding structures.

The UCODE EPC G2 chip is scheduled for mass production in Q3 2005.