

Gen 2 EPC Protocol Approved as ISO 18000-6C

The International Standards Organization has made EPCglobal's UHF Gen 2 air-interface protocol a part of its ISO/IEC 18000-6 standard.

By Mary Catherine O'Connor

July 11, 2006—The International Standards Organization (ISO) has approved the EPC Gen 2 Class 1 UHF standard, publishing it as an amendment (Type C) to its 18000-6 standard RFID air interface for item management using devices operating in the 860 MHz to 960 MHz ISM band. EPCglobal, the not-for-profit standards organization working to commercialize the use of electronic product code (EPCs) for product-tracking in the supply chain, submitted the UHF Gen 2 Class 1 air-interface protocol to ISO in early 2005, for inclusion as an amendment to 18000-6 (see Gen 2 Finds a Path to ISO Approval). This was soon after EPCglobal ratified the Gen 2 protocol as an EPCglobal standard (see EPCglobal Ratifies Gen 2 Standard). In total, ISO took 18 months to standardize the amendment.

"To us, this is a very significant milestone," says Sue Hutchinson, director of industry adoption for EPCglobal US, located in Lawrenceville, N.J. "This is the first of what we hope may be many cooperative standard-setting processes between us and ISO."

Hutchinson notes that having the Gen 2 standard recognized as part of a global standard is extremely important for many companies operating outside the United States, particularly in Asia. The World Trade Organization (WTO) has guidelines about following standards endorsed by ISO and other global standards bodies.

According to Hutchinson, aside from some reorganization made to the text, no substantive changes were made to the protocol EPCglobal submitted to ISO for the 18000-6C amendment. "The standard remained technically intact throughout the ISO balloting process," she says.

The Gen 2 (ISO 18000-6C) standard was designed based on input from the end-user community—including retailers and consumer-goods manufacturers—depending on performance requirements. It is meant to enable supply-chain trading partners to encode data to and interrogate EPCs from passive UHF tags in a similar manner, so that they might share an interoperable interrogation and software infrastructure. Manufacturers of RFID tags and interrogators (readers) could be more eager to make hardware based on the Gen 2 standard now that it is a recognized ISO standard. The passage of Gen 2 as a global standard could also foster greater competition in the passive UHF RFID systems market, which could lead to lower costs for end users.

The 18000-6 standard details the parameters for how interrogators send and receive data from UHF tags. It also specifies the frequencies and channels to be used, as well as bandwidth, frequency-hopping and other technical details. The two earlier amendments to the 18000-6 protocol (types A and B) described specific data-encoding schemes.

Documentation of the amended standard, ISO 18000-6C, is available for purchase from the ISO Web site. The documentation costs 212 Swiss francs (\$173).

