

What Is ISO 18000-7:2008 All About? (by George Ganak, PM J-AIT)

Background

The current active Radio Frequency Identification (aRFID) tags complied with an American National Standards Institute (ANSI) standard which had a limitation of approximately 4.5 million tag identification numbers (tag IDs) that could be assigned. When that “magic number” was reached, no more tag IDs could be assigned.

The DoD realized it had to make these proprietary aRFID products into Commercial Off-the-Shelf (COTS) items available to its customers. The US Army Product Manager Joint- Automatic Identification Technology (PM J-AIT) then developed the requirements to empower globally accepted standard product designs. The International Organization for Standardization (ISO) ratified ISO 18000-7:2008 which enabled PM J-AIT to contract for these new COTS products. Figures (1), (2), and (3) show some examples of new ISO-compliant products available for purchase.



Figure 1

The transition from the ANSI to the ISO environment has been a challenging process. PM J-AIT continued to use the existing infrastructure and aRFID tags while the new standard was being developed and ratified (globally). This effort would provide an almost unlimited number of tag IDs which support the existing infrastructure, expand the competition, and increase interoperability between vendor's products. Some RFID-II products (Table 1) have reached the end of their manufacturing life and will need to be replaced.

751G-101	101-2	101-3	101-7	
751G-KIT-C-101	C-101-2			
TGP	-01	-02	-03	-04
TAV-PDK-03	TAV-PDK-04			

Table 1 Intermec Handhelds 751G with 64 MB cannot be upgraded

ISO Migration Status

As of 1 June 2010, all fixed interrogators have been upgraded to read both ANSI (legacy) aRFID tags and the ISO aRFID tags in what is called “dual mode.” Operation in dual mode will continue until new guidance from OSD is provided. Registered users of PDK and EEDSK under warranty can obtain a software upgrade that is available through the Savi Help Desk.

How to Purchase the New ISO aRFID Products

The third Radio Frequency Identification Contract (RFID-III), administered by PM J-AIT (<http://www.ait.army.mil>), supports a worldwide technology effort that replaces the current ANSI compliant tags and readers with the open standards-based ISO 18000-7 product. ANSI products are no longer available for purchase. DoD is implementing a detailed migration plan which includes finding and returning “sidelined” tags.



Figure 2

The Current Cable and Label for ANSI Tags



Proposed ISO Label and Standard USB Cable



Figure 3

Note: The current RFID ITV system/infrastructure has over 10,000 read and write sites, including Satellite Tracking Systems that support our global supply chain.