RFID ISO

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The RFID have evolved since their origin in World War II when the radio frequency were used to identify the friendly aircraft to today inventions that has seen it being used in various companies for various roles. The various companies to manage the products during their cycle in production, distribution and retailing use the largest share of the RFID application system in supply chain management. Manufacturers mostly use the RFID application system since they are cost effective in the operations of the system supply chain while keeping an accurate and timely inventory data (Blecker, Huang & Bajic, 2008).

The RFID application system is useful in distribution chain of supply chain due to its ability to monitor the transportation and distribution of the finished through the supply chain system. This is achieved through tagging the RFID on the items or the containers that carry such items. Importantly, the RFID is vital in the distribution part of supply since it cut the costs involved in keeping the accurate inventory information. Moreover, the RFID aid in promoting the product mix and ensuring the availability of the products to the customers. Similarly, the RFID are needful in preserving the brand name of the company through marketing promotions while protecting customers against counterfeit products.

However, to achieve the projected benefits of RFID application systems within the supply chain management, the company needs to follow the set standards by the ISO body. The standards will help in solving the arising problems while giving recommendations on how the industry is regulated (Blecker, Huang & Bajic, 2008).

The RFID standards have formed the rich platform of guidelines or a specification about how the system works and any development regarding how the readers interpret the tags. They are therefore of importance since they ensure the products are interoperable. The feedback form the consumers is also useful in making different tags for the various system applications. As a result, the markets will expand with every innovation made of the RFID application system in line to the supply chain of such products as well as increasing the competitiveness in the market leading to a reduction in the standardized prices of application systems.

The globally accepted bodies of International Organization of Standardization (ISO) and GS1 make these standards for the RFID equipment’s. The two bodies work together to approve the standards and procedures relevant to the specifications of the RFID. The standards enable the world to universally accept the RAIN RFID.

The ISO standard of 18000-63 is solely responsible for controlling and guiding the operations of the RFID. It makes sure that the application system for the RFID continue to maintain its quality while seeking for continuous improvements.

Apart from the named standard above, there are many critical standards applicable to the RFID applications like the payment system and the tracking goods across the supply chain. The standards however are still being developed with time for the RFID system.

Some of the proposed standards include the air interface protocol that concerns itself with the interpretation of the tags on the RFID equipment by the customers. In addition, the standard check the data contents to ascertain if it has followed the right format. Finally, it ensures that the operations of the system conforms to the set standards and its applications during the shipment process.

Nevertheless, during the year 1999, the monopoly of the air interface protocol was troubled by the invention of the Auto ID center that developed another electronic product code to help track them through the global supply method. The center was marked by network architecture that enabled the people to stored data.

The standard exist in the area of animal identification, cards and personal identification and containers ID. The ISO standards include 18000-1 which is for General guidelines, 18000-2 represent the less than 135 KHz frequency, 18000-3 represent the HF 13.56 MHz, 18000-4 represent the 2.45GHz, 18000-6 represent the UHF 860-960 MHz and 18000-7 represent the 433MHz frequency (Roussos, 2008).

Ultra high frequency (UHF) is the RFID tech ology that has caught a lot of attention lately. It is a compromise of a proper reading speed, distance, cost and the handling of various tags. The UHF Generation 2 has been approved as a recognized EPCglobal standard for the RFID equipment since December 2004 (Roussos, 2008).

The EPCglobal standards were submitted to the ISO body and were officially launched as ISO standards in the year 2006. It was designed to be fast tracked by the ISO but was delayed by the Application Family Identifier (AFI). The AFI code has the ability to trace the source of the data on the tag.

The ISO have therefore developed the standards for the purpose of automatic identification and management of the particular items to RFID. The EPCglobal standard however falls under the 18000-6 frequency of the ISO standards although it will require to be passed through a system of amendment of EPC standard. This is the hope of the users who look forward to using a common UHF RFID tags although it will be delayed by the amendment process.

In conclusion, the supply chain management of the RFID products requires to be in tandem to the standard set by the ISO 18000 family standards as well as the EPCglobal Generation standards to ensure the accuracy and the reliability of the data obtained (Roussos, 2008).

**References**

Blecker, T., Huang, G. Q., & Bajic, E. (2008). *RFID in operations and supply chain management: Research and applications*. Berlin: Erich Schmidt Verlag.

Roussos, G. (2008). *Networked RFID: Systems, software and services*. London: Springer.