An RFID tag offers high-speed identification

Fired up for RFID

The implications of RFID technology for the pharma industry are enormous, given the growing number of supply chain and security applications it enables. Though the technology is still evolving to suit specific applications, tag manufacturers are now ready to produce on a large scale, meaning implementation will be swift.

RFID is one of the hottest topics in healthcare. Potential applications abound in the pharmaceutical sector, given the technology's ability to track, trace, identify and manage individual products.

'The pharmaceutical industry has identified a variety of ROIs for RFID and there is more pull from the pharma industry for solution providers like us than from any other industry,' says Randy Stigall of UPM Raflatac RFID business. 'It can be used to avoid counterfeiting, provide more information on the utilisation of drugs, and tighten up the supply chain.'

The RFID business area of UPM Raflatac specialises in producing and developing RFID tags and inlays used in contactless smart labels. Headquartered in Finland, it has offices in the USA, France, Germany, the Netherlands, China and Singapore, and is backed by the UPM-Kymmene Corporation. The company's tags are destined for a variety of end-use applications, but the pharmaceutical market is a key focus.

Its knowledge of the sector is based not only on its understanding of the many advantages that RFID can offer the pharma industry, but also on the economic case for individual item tagging in the pharma supply chain. In other sectors, such as retail, the cost of per-item tags is still seen as perhaps too high to justify the business case. In pharmaceuticals, however, the situation is different.

'The value of what is being tagged is greater in pharma than in other consumer sectors,' says Stigall. 'So, especially for supply chain security, where RFID brings a level of security that is difficult for the counterfeiters to recreate, the technology will add a new dimension at a cost that manufacturers are willing to bear.'

'Also in the logistics and tracking field, the value add is that high-speed, secure identification of items through an access port is easy to automate, so RFID enables tracking requirements without excess labour costs,' adds UPM Raflatac's Samuli Strömberg.

The argument for RFID is that in tracking products along the supply chain to improve delivery, inventory management, production and security, tags offer faster per-item scanning speeds than bar code equivalents. Passive tags can be read simultaneously from a distance by a single reader, even through, for example, a corrugated case, whereas bar codes need to be scanned by hand individually.

Technology debate

Yet there are problems with RFID that still need to be overcome. For instance, there is still some debate over the most appropriate technology to use for the tags themselves – high frequency (HF) or ultra high frequency (UHF).

'There is a discussion over which is more appropriate at the item level,' notes Stigall. 'We see HF as the better in a variety of uses, given its features and the precision needed in execution to deliver savings and ensure safety. HF is an inductive technology, so it has a greater level of shared RF visibility; UHF is a propagated technology that can be affected by reflections, including other tags. However, HF has a smaller field of view.'

Despite such issues, manufacturers are geared up to produce tags, no matter which technology is preferred. UPM Raflatac, for instance, could deliver a billion tags a year to the pharma industry and quickly ramp up to two billion.

'The industry will resolve this issue in the summer of 2006, and we will supply UHF if that is what the industry chooses,' says Stigall. 'We supply both types of tag and few people, if any, can respond to demand for production like we can.'

Though many issues obviously remain to be addressed in regard to the wider uptake of RFID, manufacturers are now ready to produce tags in quantity, paving the way for the pharma industry to act quickly once its implementation decision is made. **END**

Company profile

UPM Raflatac RFID business specialises in the production and development of high-quality RFID tags and inlays. The company has invested heavily in key enabling technologies that will help lower the price of tags. For more information, visit: www.upmraflatac.com