GS1 US Releases Protocol for RFID

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The standards group GS1 U.S. has released its new protocol for tagged items. Called the Tagged-Item Performance Protocol, it is designed for companies that use radio frequency identification tags for registering merchandise in different industries and contexts. RFID Journal predicted that the new standards may cause more companies to begin using RFID as a way to perform data collection inside of warehouses and factories.

In the past, the standards did not have specific guidelines for the different strengths and grades of an RFID tag, but now, GS1 has established rules for determining what a tag's rating would be. In the past, different manufacturing companies had different brand preferences, and this could interfere with having a set way for how RFID tags were supposed to operate using different readers. If a company switched tags, then the readers may not have been able to scan the tags in the same way. Additionally, when companies shipped out products, different retailers would require different brands of tags.

"Tagging at the source helps retailers and suppliers drive true inventory accuracy and visibility," said Bebe Purcell, a co-chair of the TIPP workgroup. "[...] But up until now, suppliers have been challenged with inventory segmentation—as RFID's performance requirements have been unique from retailer to retailer. With no best

practices in place, suppliers have been subjected to undue operational costs and constraints. The TIPP guideline helps alleviate these supplier constrictions by offering the retail sector a methodology to consistently define, test and verify the performance level of EPC-enabled RFID tags."

What the TIPP Guidelines Bring

A major change is that the system now assigns grade definitions to different RFID tags depending on how well a reader can pick up on its signal in terms of angle and distance. The idea is that companies can now choose brands based on a foreknowledge of what the products would be able to do in a business's warehouse or factory. As such, there should no longer be surprises about the performance of a product that was recently bought, as the TIPP rating would now appear along with the product's information.

The benefits of this are not only for factories, but also for companies that ship to retail stores, Apparel Magazine explained. In the event that a company buys an RFID tag with the intention of using it not only in a factory but also for retailers who will put the product on the shelf, it's possible that each retailer will want a different grade. TIPP suggested that with the new system in place, in which a higher grade is more easily picked up by a radio detector than a lower grade, a company can simply choose the most powerful RFID tag among the grades that its different retailers want.

"Historically, retailers have conducted their own RFID performance testing and set their own individual expectations for tag inlay solutions that may be used to tag products destined for their stores," said Melanie Nuce, vice president of apparel and general merchandise, GS1 U.S., according to Apparel. "This required suppliers to provide different solutions for different retailers. TIPP now allows retailers to set performance levels for a specific use case, and it also allows suppliers flexibility in how they meet grade levels from multiple retailers."

The Importance of Data Collection

Data collection, whether through RFID or barcodes, is important not only for retailers but also for the manufacturing industry, and the benefits of having a generalized grading system for RFID tags will likely result in more companies beginning to use data capture as part of their strategy for maintaining a transparent manufacturing floor. Having the ability to know where a product is as it

is being made in a factory allows companies to find bottlenecks quickly and efficiently, with the ultimate result being boosted productivity.