

Consumables Authentication Success



Background

We were approached by a OEM Lab Instrumentation company with an issue. Their technical support group was receiving calls from customers who were complaining of erroneous machine results. These customers were mainly in the far east but the problem seemed to be growing. On investigation and detailed inspection the customers were found to be using counterfeit consumables. These counterfeits were skewing and negatively effecting the lab instruments results.

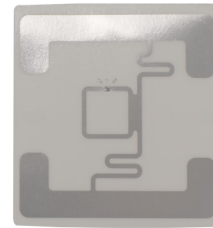
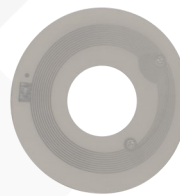
As is the case in the consumables market there were many cheaply made fraudulent consumables being produced by international manufacturers hoping to lure customers with the promise of consumables savings. The OEM Lab Instrumentation company needed a way to determine that the consumables placed into their machine were genuine. They wanted a system that would allow their machine to detect a consumables authenticity and alert the customer if a counterfeit was found. They additionally did not want to alter the design, fit, and operation of their machine or consumables.

The solution additionally needed to be incorporated into their consumables and be able to work around the machines existing complex testing process.

Solution

Diamond Technologies was able to develop a solution for consumables authentication using high frequency RFID read/write tags and high frequency RFID read/write readers embedded into their machines. This would allow for read and write transmissions between the tag placed on the consumable and the machine itself. This would also allow for use tracking, to prevent the additional re-use of genuine consumables, by letting the machine write code to the consumable to permanently identify it as “used”.

Diamond Technologies’ software engineers also worked to assist in the application development that would read and write to each consumable’s RFID tag in order to determine if it was a genuine or counterfeit. RFID allowed the consumable to have an additional level of counterfeit protection, the code held on the tag. This provided the added security the OEM needed to ensure their machines results and the integrity of the consumables.



RFID Tags Used on

Consumables

Implementing RFID technology into their machines both discourages new counterfeiters , and additionally makes producing false consumables essentially impossible for existing producers.

The success of this project was made possible by Diamond Technologies’ expertise in the field as well as its continued belief that our customer’s success is our success.



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