

Smart RFID Sensing and Data Logging

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Summary

The quality of the food chain becomes more and more important for the western world. High cost goods travel around the world, being not always treated as recommended. Insurance companies pay a fortune on destroyed goods. Low cost and highly reliable logistics supervision becomes more and more important for us. The RFID Tag chips of Productivity Engineering GmbH provide the foundation for numerous new highly integrated thus small RFID sensing systems. These systems can operate at two standard RFID frequencies. The PE3001 is an EPC-Class1-Gen2 transponder chip, with EPC function and an expansion to measure and monitor sensor data. The PE3011 is an ISO15693 compliant RFID transponder chip, with extended functionality to measure and monitor timing or event driven data. Both ICs are unique in their functionality although they are completely compliant to their respective basic RFID standards. Systems using these ICs can accumulate all kinds of environmental data. Some examples will be described in the paper.