

Active RFID Sensor with Integrated File System for Logistic Applications

T. Volk, D. Jansen, H. Speletz, B. Fleiner, D. Bau, A. Kreker, A. Riske,

Abstract

The Institute of Applied Research Offenburg is working in the field of autonomous data loggers since many years. In collaboration with industry, a new RFID based active sensor data logger for continuous recording of temperature has been developed and is now manufactured in mass production. Compared to existing systems, an unusual large data memory is integrated, which can be used via a simplified file system in a flexible way. The system will be used to accompany and monitor temperature sensitive goods of high value. The transponder is the first member of a new class of logging devices, the smallest will be not larger than a 2 €coin with a fully integrated ASIC front-end.