

Proposal Title: Smart Asset Monitor and Tracking Tag

Project Leader: Dale Wilson

Project Duration: 18 months

Abstract

Environmental exposure history, especially temperature, is crucial for assessing and maintaining viability of high-value items including pharmaceuticals, life science materials, industrial supplies and food during shipment and storage. American Semiconductor will deliver low profile, physically flexible Smart-Tags capable of automatically logging environmental data and wirelessly transmitting the data using an industry-standard RFID protocol. This low-cost flexible hybrid electronics system will include a flexible antenna, battery, complex integrated circuit and wireless communications. The Smart-Tag will be supported by a full product infrastructure of readers, documentation, test data, volume manufacturing flows and a clear commercialization path. Boise State University will provide workforce development, education and training for FHE design and manufacturing. Installation of the Smart-Tags and a reader infrastructure at NextFlex will highlight FHE technology and manufacturing process capabilities to encourage designers and OEMs to incorporate FHE into their future products.



ASI GP-Tag (RF temperature sensor) mounted to the surface of a Bordetella vaccine container. This is an example of a high value product that could benefit from the Smart-Tag.