

## PRESS RELEASE

### **Smartrac Launches World's First Passive Temperature-level Sensing Inlay**

**Orlando (FL, USA), Amsterdam (The Netherlands), May 3, 2016 – RFID technology leader Smartrac has announced Sensor Temperature DogBone, the industry's first passive RAIN RFID temperature-sensing inlay. The new sensor inlay combines previously unattainable levels of accuracy and cost-efficiency. The latest addition to Smartrac's sensor inlay family focuses on the logistics environment – cold-chain management, grocery or agricultural applications.**

Launched at the RFID Journal Live! 2016 tradeshow in Orlando, Florida, this innovative product is the latest development arising from Smartrac's successful cooperation with sensor specialist RFMicron.

Based on Smartrac's moisture-level sensing inlay Sensor DogBone, and also utilizing the proven RFMicron Magnus<sup>®</sup> S3 chip, Sensor Temperature DogBone offers a maintenance-free and battery-free temperature-sensing solution to business problems for improved product management and quality control.

In addition, the new inlay retains the basic moisture-sensing capabilities of its sibling, as the IC provides the option to read the sensor code and on-chip RSSI (Received Signal Strength Indicator) value to detect how much power the chip is receiving from the reader.

#### **Accurately sensing temperatures from -20°C to +65°C**

Sensor Temperature DogBone senses temperatures ranging from -20°C to +65°C. The sensed temperature is digitized into a 12-bit number and wirelessly communicated to off-the-shelf readers using a standard UHF Gen 2 protocol. The 12-bit number can easily be converted into a precise temperature measurement.

The typical accuracy is  $\pm 1^\circ\text{C}$  using one-point calibration done during wafer manufacturing. Alternatively, two-point-calibration is available. This technique means that the tags are calibrated at an additional higher or lower temperature point, defining a temperature range where higher-than-standard accuracy is achievable.

#### **Affordable solution serving a wide area of applications**

Sensor Temperature DogBone can be deployed in environments where active or semi-active sensors are not practical or economically feasible. FCC and ETSI compliant and available in wet label format, Sensor Temperature DogBone is easy to implement, and works on different low- and high-dielectric materials like cardboards, plastics, stone, wood and construction materials.

Intended to serve new and existing markets, such as industrial, perishables, healthcare and Internet of Things (IoT), it provides great performance at a very reasonable cost level. By leveraging its temperature and moisture-sensing capabilities, an ever-wider range of use cases and applications is conceivable.

All in all, the new inlay boasts a long lifetime and full recyclability. Sensor Temperature DogBone works in the 860-960 MHz frequency range and comes in a die-cut size of 97 x 27 mm (3.8 x 1.1 in), with an antenna measuring 89 x 24 mm (3.5 x 0.9 in).

“With Sensor Temperature DogBone, we are expanding our highly successful product family of passive sensor inlays based on RFMicron’s Magnus S3 chip. Like its siblings, the new Sensor Temperature DogBone will provide the basis for a large number of applications that would be inconceivable without RFID sensing technology pioneered by Smartrac and RF Micron,” says Dirk Boltersdorf, Head of Product Development and Management, Intelligent Things Business Division at Smartrac.

**Learn more about the new Sensor Temperature DogBone inlay and discover SMARTRAC’s innovative RFID solutions @ RFID Journal Live! 2016, booth #312, May 3-5, 2016, Orlando, Florida.**

## About SMARTRAC

Smartrac is the world’s leading developer, manufacturer and supplier of RFID products and services, providing both ready-made and customized products and services suitable for a large number of applications. Smartrac makes products smart, and enables businesses to identify, authenticate, track and complement product offerings. The company’s portfolio is used in a wide array of applications: access control, animal identification, automated fare collection, automotive, border control, contactless payment, electronic product identification, industry, libraries and media management, laundry, logistics, retail, public transport, and many more. Leveraging its global R&D, production and sales network, Smartrac combines physical products with its Internet of Things platform Smart Cosmos, empowering the ecosystem of connected things. Smartrac has its registered headquarters in Amsterdam, the Netherlands. For more information, visit [www.smartrac-group.com](http://www.smartrac-group.com), follow us on [www.twitter.com/SMARTRAC\\_NV](https://www.twitter.com/SMARTRAC_NV) or [click here](#) to sign up for our quarterly newsletter.

## Media contact

SMARTRAC TECHNOLOGY GROUP  
Karin Fabri  
Head of Corporate Communications & Marketing  
Phone: +31 203 050 150  
Email: [media.relations@smartrac-group.com](mailto:media.relations@smartrac-group.com)