

Axzon Inc. Expands its Smart Passive Sensing Portfolio with the Introduction of Xerxes Family

Axzon expands its Smart Passive Sensing products with Xerxes-I, which enables a configurable, multi-modal sensor platform with a secure, wireless UHF interface.

AUSTIN, TX, UNITED STATES, January 14, 2019 /EINPresswire.com/ -- Axzon Inc. continues to blaze the trail in the field of smart passive sensors with the introduction to its Xerxes sensor



family. Xerxes-I, the first of this family, provides a configurable means to pair passive transducers with the its ultra-low power signal acquisition and conditioning analog front-end.

Xerxes-I enables a configurable, multi-modal sensor platform simultaneously allowing as many as 4 different sensing functions on a single chip with 128-bit AES encryption along with message authentication to protect its data integrity. Depending on the specific application, external transducers such as strain gauges, pH electrodes or relative humidity transducers can be paired with Xerxes to construct the most diverse and configurable sensor in the market. Like its predecessor Magnus, the Xerxes family of sensors can operate in passive (battery-free) mode, harvesting RF energy wirelessly from a UHF RFID reader.

With a pair of 128-bit keys, Xerxes incorporates a strong cryptographical AES co-processor engine which encrypts data stored in memory to allow secure wireless communication between the sensor and a compatible reader. In addition, Xerxes generates a corresponding message authentication code that travels with the encrypted data offering unprecedented secrecy and integrity of its data. This is especially desirable in compliance or blockchain applications which require a secure means to read from and write to the sensor node.

Another key feature in Xerxes' arsenal is a standard SPI interface enabling communication with any microcontroller unit (MCU) to expand its capabilities to perform data-logging and/or additional processing of the sensed data. Pairing with an MCU creates an independent and fully autonomous IoT sensor node serving multiple sensing applications using a single solution. One example could be to measure the "freshness" of perishable produce in cold-chain applications. Another application could be for generating a secure compliance report for temperature sensitive pharmaceuticals in transit. The low power and wireless operation of the solution are attractive for a multitude of applications ranging from Industrial IoT to cold-chain logistics to asset sensing and/or tracking. First prototypes of the Xerxes + MCU evaluation board was showcased at the Electronica trade show held in Munich, Germany from November 13-16, 2018.

Production samples of Xerxes parts (20-lead QFN package) as well as Evaluation boards for connecting to external transducers and/or interfacing with an MCU will be available in March 2019.

"We are very excited to expand our reach into the IoT market by launching the Xerxes family portfolio and to connect more things using our IoT solution, which includes our ReaderService™ software stack, Magnus based sensors, and now Xerxes family product line. Our solution empowers our customers to make informed decisions and reach new levels of productivity based on trusted data provided by Axzon," says Shahriar Rokhsaz, CEO of Axzon.

For the product brochure, please visit <u>www.axzon.com/rfm405-xerxes-wireless-passive-sensor-ic</u>. For more information, please contact sales at sales@rfmicron.com.

About Axzon

Based in Austin, Texas, Axzon (formerly RFMicron, Inc) produces end-to-end wireless sensing solutions that bring the Internet of Things (IoT) to industry and businesses in need of real-time business insights into productivity, performance, and environmental threats along their supply chain. Since its founding in 2006, Axzon has led the expansion of sensing capabilities to meet the unique, large-scale demands of businesses whose success depends on knowing more about their operating conditions, including automotive manufacturing, healthcare, predictive maintenance, switchgear, cold-chain and data centers. Axzon's solutions include wireless Smart Passive Sensors™, SMART Edge™ systems, and other patented and patent-pending industrial IoT solutions.

Learn more at <u>www.axzon.com</u>.

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Tanmay Zargar Axzon, Inc. +1 512-535-4647 email us here

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