

**Tamarack Products integrates Lake Image Systems tech to print variable information on RFID tags ... Luxochain combines NFC, RFID, blockchain, fingerprint authentication to thwart counterfeiting ... Amazon to join Zigbee Alliance board of**

**By Rich Handley**

**Tags:** Innovation, Energy, RFID Channel, NFC, Smart Products, Internet of Things, Smart Home

Jan 31, 2019—Presented here are news announcements made during the past week by the following organizations: [Tamarack Products](#), [Lake Image Systems](#); [Luxochain](#); [Amazon](#), the [Zigbee Alliance](#); [Rutronik](#), [Insight SiP](#); [C3](#), [Enel](#); and [Ericsson](#).

### **Tamarack Products Integrates Lake Image Systems Tech to Print Variable Information on RFID Tags**

[Lake Image Systems](#), a supplier of print-quality inspection, variable-data verification and integrity-management solutions, has announced that its Discovery Read&Print for RFID system has been integrated into [Tamarack Products'](#) inline and offline RFID inlay production modules, used in Tamarack's P500 and RFID Extreme products. During RFID inlay insertion, the company reports, this integration is intended to ensure real-time, single-pass RFID reading and encoding with inline inkjet label printing, tracking and camera verification for automated, high-speed and high-quality, multi-lane RFID tags and label production.

According to [IDTechEx](#), the global market value for RFID tags and labels is expected to grow to \$1.4 billion by 2022. A key driver to this growth, according to the company, will be the industry's capacity to offer high volumes of affordable, reliable and fully personalized RFID tags and labels for the retail, security, manufacturing, leisure and transportation markets. This integrated solution is designed to allow printers and converters to manufacture fully inlayed RFID labels and tags, and to encode them with variable data via synchronized inkjet label printing, on a single device, with built-in error verification and RFID data to print matching.

"Lake Image Systems stood out as one of a handful of companies that had the expertise and technology to bring all the various elements onto our RFID inlay equipment, to produce fully verified, variably printed and encoded RFID tags and Labels at production speeds," said Tamarack's president, David Steidinger, in a prepared statement. "By expanding our product offering to include integrated inkjet printing with reliable, real-time production verification, we now have a high performance, robust and automated solution to satisfy this challenging requirement from our clients."

"Throughout the 25 years in the inspection industry, continuous innovation and expanding the value of our Discovery platform to new markets has been the cornerstone of our growth strategy," said Scott Stevens, the president of Lake Image Systems, in the prepared statement. "Our integration onto Tamarack's RFID inlay tags and label manufacturing equipment has unified normally disparate production steps into a single, seamless process—enabling their clients to benefit from all the potential business benefits of reduced labor, higher speeds and better quality."

### **Luxochain Combines NFC, RFID, Blockchain, Fingerprint Authentication to Thwart Counterfeiting**

[Luxochain](#) has announced the launch of a blockchain-based service combining Near Field Communication (NFC), radio frequency identification (RFID) and fingerprint authentication (FPA). Its certified system, Block ID, based on blockchain technology, uses a unique token attached to each product to combat the \$1.2 trillion counterfeit luxury goods marketplace.

With the Luxochain system, available in APP, any buyer, prior to a purchase—whether in-store or online—can check the authenticity of each product, verifying the information on the blockchain attached to each product. In the event of theft or loss, it will be able to block an asset so as to facilitate the object's recovery and return it to its rightful owner.

Already in talks with several luxury brands, Luxochain offers a valuable service to consumers to protect their purchases, and works side by side with brands to provide a mechanism of transparency, contact, loyalty and i-coupons toward customers. At the stage of manufacture, all authentic luxury products will be fitted with an invisible and encrypted serial number (a Block ID). This ID is associated with a token that is uniquely identifiable, to which luxury brands will register on the blockchain. Once inputted, the information can never be altered from the outside.

Certifying authenticity at the point of sale using blockchain technology, customers can scan the code and ascertain the product's authenticity. A product's unique certificate reveals information such as its make, model, origin and history throughout the supply chain. Merchants can use the blockchain to transfer ownership rights from themselves to new owners, increasing the chances of recovery in the event of theft. It will be possible to block or bin a product being stolen to ensure that it doesn't fall into the hands of illegitimate vendors. Products can be authenticated using the Luxochain mobile app.

### Amazon to Join Zigbee Alliance Board of Directors

The [Zigbee Alliance](#), an organization of hundreds of companies creating, maintaining and delivering open, global standards for the Internet of Things (IoT), has announced that [Amazon](#) will join its board of directors. As IoT growth continues to accelerate, prominent companies in the technology sector are collaborating within the Zigbee Alliance to shape the direction of standards, ecosystems and devices, the organization reports. Amazon's decision to join the Zigbee Alliance at the board level, the Alliance claims, indicates that the industry is focused on simplifying and adding convenience to the growing range of IoT devices available to customers.

"Customers tell us they want smart home experiences that are simple to setup, easy to control, and add convenience to the tasks they do every day," said Christian Taubman, Amazon's director of Alexa Smart Home products, in a prepared statement. "Voice control with Alexa is helping remove the complexity of smart home, and there are even more ways we can help customers by ensuring their smart devices connect and work together seamlessly. We look forward to working with the Zigbee Alliance and its members to contribute to open standards for device interoperability that benefit our mutual customers."

According to the Zigbee Alliance, smart homes are taking hold and consumers are embracing IoT products as they continue to become easier to use, while manufacturers and standards organizations are bridging differences and breaking down barriers. "As an industry, we need to move quickly to help consumers add new devices effortlessly, and ensure they are getting a great experience in the Internet of Things," said Tobin Richardson, the president and CEO of the Zigbee Alliance, in the prepared statement. "We're proud to be attracting the best tech companies on the planet, and Amazon joins an impressive lineup of other industry leaders and innovators on the Board who work with the Zigbee Alliance's open standards and community to deliver real value in the IoT."

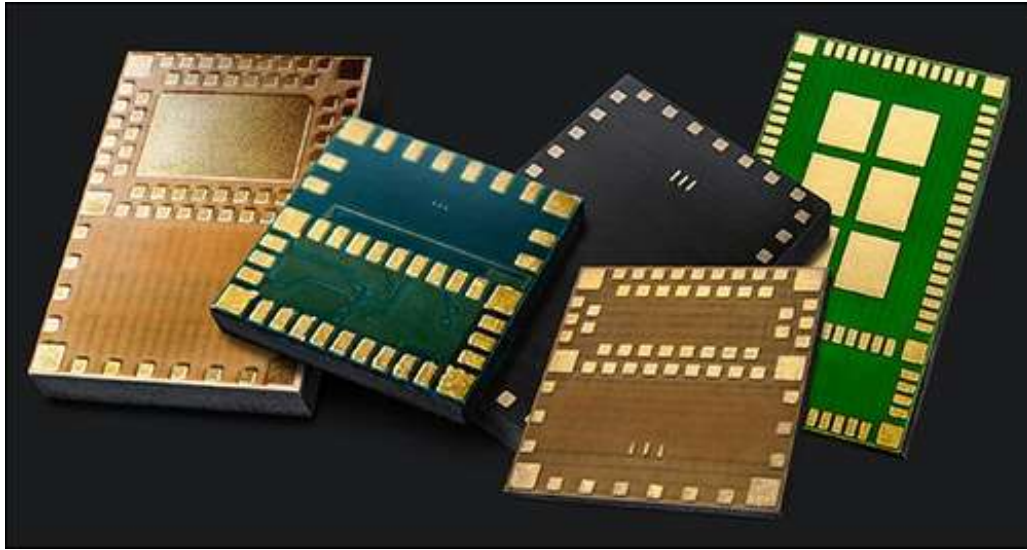
Numerous companies have designed devices based on the Zigbee Alliance's wireless standards. Amazon's devices, including the Echo Plus and Echo Show, feature a built-in smart-home hub that can be connected to Zigbee-based light bulbs, door locks, sensors and more.

"Pairing Amazon's Alexa-based technology with the Zigbee Alliance's prominent wireless standards makes a lot of sense for not only manufacturers looking to partake in the smart home, smart building, and connected city categories but more importantly for the consumers that must embrace and champion connected technology for it to grow by contributing value to our everyday lives," said Mareca Hatler, a principal analyst at ON World, in the prepared statement. "Our research projects Zigbee technology will ship in 85% of the 4.5 billion 802.15.4 units predicted to hit the market in 2023, and with Amazon as a Board contributor in the Alliance, it's clear the market-movers are really pulling together and operating on a global level to steer everyone forward."

### IoT Company Rutronik to Distribute Insight SiP Bluetooth and RF Antenna Modules

[Rutronik](#), a distributor of electronic components, semiconductors and solutions for the Internet of Things (IoT) and embedded systems, has announced that [Insight SiP's](#) ISP1507-AL system-in-package (SiP) is now available at [Rutronik24](#). Based on the nRF52810 multiprotocol system-on-chip (SoC) from [Nordic Semiconductor](#), the ISP1507-AL is a fully integrated Bluetooth Low Energy (BLE) module that, according to the company, is suitable for mesh relay nodes and IoT applications.

The ISP1507-AL module features an [ARM](#) Cortex M4 floating point processor, enabling the new SiP to perform fast calculations, as well as analog and digital peripherals. Its dimensions (8 millimeters by 8 millimeters by 1 millimeter), performance and range of functions make it suitable for use with solutions requiring fast processing and low power consumption, the company indicates. Target applications include the IoT, industrial sensors, wearables, beacons and home automation.



"The new ISP1507-AL module from Insight SiP truly represents the state of the art in Bluetooth module technology," said Mary Ellen Bauchman, Rutronik's director of product marketing for North America, in a prepared statement. "As the smallest fully integrated BLE module available on the market, the ISP1507-AL device provides a complete solution for Bluetooth Low Energy and ANT connections. With its miniature size, high performance, and wide range of integrated functions, the new module offers an ideal solution for complex applications that require fast processing and low-power consumption."

The ISP1507-AL BLE module features 192 kilobytes of flash memory, 24 kilobytes of RAM and two integrated crystals (32 MHz and 32 kHz), allowing for high-performance operations. In many cases, the company notes, the ISP1507-AL SiP can eliminate the need for an additional microprocessor or additional memory. It comes with an antenna and various interfaces, including SPI, I2C, UART and ADC.

The ISP1507-AL BLE module supports Bluetooth 5.0, ANT+ and other mesh protocols, and an optional NFC antenna allows touch-to-pair functionality. The ISP1507-AL SiP is based on Nordic's nRF52810 SoC, and Nordic's software stacks can be used with the new module. In addition, the unit is pin-compatible to related modules, including the ISP1507-AX and the upcoming ISP1807-LR. The ISP1507-AL BLE module is now available for purchase at Rutronik24.

### **C3 Provides IoT and AI Technologies to European Power Utility Enel**

C3, an artificial intelligence (AI) software provider, has announced that Enel, a European power utility and a pioneer in smart-grid technology, is working with C3 as its strategic provider of big-data platforms and applications. Following a five-year collaboration, C3 is providing Enel with its C3 AI Suite, a range of AI and smart-grid analytics applications. The AI software integrates, aggregates and makes available unified data across ERP, HR, financial and operational systems, including SAP Hana, Oracle, Siemens, PostGreSQL, MongoDB and Cloudera.

"Enel and C3 have worked closely over the last five years to develop and deploy a large production-scale big data platform with AI and IoT applications," said Thomas M. Siebel, C3's CEO, in a prepared statement. "Enel's leadership, vision, and technical ability stands apart from many organizations in its embrace of AI and IoT, machine learning, and deep learning to transform operational processes and to provide business and social benefit." The C3 AI Suite allows Enel to provide developers, data scientists and business analysts with a common, secure view of its data, enabling them to collaborate and rapidly develop AI applications.

"Leveraging the power of AI and IoT is key for Enel to achieve its digital transformation, while allowing tremendous benefits to be delivered to its customers and shareholders," said Fabio Veronese, Enel's head of infrastructure, networks and digital hubs, in the prepared statement. "The collaboration with C3 is allowing us to harness innovative business processes enabled by big data analytics, unleashing a new era of operational efficiencies that strengthen our position as leader of the energy transition."

"C3's success with Enel is due to our experience in handling big data, enterprise-scale cloud computing, complex analytics, and,

perhaps most critically, our integrated machine learning capabilities. This has been accomplished thanks to the effective collaboration with Enel. The results of this partnership fully enable Enel's aggregation of large volumes of real-time data and the development and execution of the thousands of algorithms needed to analyze those data and generate millions of predictions daily – all designed to increase the speed and accuracy of Enel's operational decision making," said Ed Abbo, C3's president and CTO, in the prepared statement. "We are establishing an advanced analytics infrastructure for Enel's digital future, while effectively leveraging Enel's prior investments in data infrastructure across the enterprise."

### **Ericsson Intros Cellular IoT Solutions, Identifies Industry Market Segments**

**Ericsson** has announced new cellular Internet of Things (IoT) solutions designed to enable service providers to address a larger part of the IoT market with use cases across such vertical markets as automotive, manufacturing and utilities. The firm has outlined cellular IoT evolution in four market segments: massive IoT, broadband IoT, critical IoT and industrial automation IoT. Broadband IoT adopts mobile broadband capabilities for the IoT and supports higher data rates and lower latencies than massive IoT, the company explains, while industrial automation IoT will enable advanced industrial automation applications with demanding connectivity requirements.

The firm is launching enhanced functionalities for massive IoT, along with new solutions for broadband IoT. One massive IoT enhancement is the NB-IoT Extended Cell Range 100km, which stretches the standards-based limit from around 40km to 100km through software updates, without changes to existing NB-IoT devices. According to Ericsson, this opens opportunities in IoT connectivity in rural and remote areas, particularly for logistics, agriculture and environment monitoring. The company has deployed NB-IoT data connections of up to 100km with Telstra and DISH.

The broadband IoT solutions being launched include drone detection and link control, radio access network (RAN) slicing, advanced subscriber group handling and Multi-Gigabit LTE for 2Gbps data throughput and around 10-millisecond latency. According to the company, the solutions are intended to enable use cases in automotive, drones, AR/VR, advanced wearables, smart manufacturing and smart utilities.

"Cellular IoT is moving from early adoption with Massive IoT to global rollout," said Fredrik Jejdling, Ericsson's executive VP and head of networks, in a prepared statement. "We are now describing 'what's next?' for our customers and how they can make the most out of their 4G and 5G investments on the same network and address more advanced IoT use cases across industries."