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STMicroelectronics achieves Vodafone NB-IoT certification for location-aware cellular IoT modules

ST87M01 NB-IoT modules now tested and approved by leading cellular network operator Vodafone

Geneva, Switzerland, August 22, 2023 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has announced the achievement of Vodafone NB-IoT certification of its ST87M01 NB-IoT and GNSS modules. The ST87M01 combines cellular IoT connectivity and geolocation in a miniaturized, low-power, integrated module featured for wide-ranging IoT and smart-industrial applications.

"*Completing our test program with Vodafone assures our customers of a reliable and future-proof data connection for their IoT solutions that leverage this module's novel and power-efficient features*," said Domenico Arrigo, General Manager, Industrial and Power Conversion Division, STMicroelectronics. "*Also, being entirely conceived, designed, and industrialized by ST ensures high product quality and security with supply independence and longevity.*"

Sven Sobe, Senior Expert IoT Innovation & Certification at Vodafone, added, "*ST's ST87M01 module has demonstrated flawless connectivity with our NB-IoT global infrastructure and offers an excellent option to connect to our network anywhere in Europe.*"

The ST87M01 has also been recently certified by the Global Certification Forum (GCF) that promotes interoperability of mobile and IoT products. The module complies with 3GPP Release 15 and provides extended multi-regional LTE coverage.

Bringing together reliable geolocation capability with long-term assured cellular connectivity, the ST87M01 module addresses emerging massive IoT applications such as smart traffic-emergency lights, to become mandatory in Spain by 2026. The new lights supersede the passive emergency triangle, by providing real-time car geolocation to the local traffic-control system in the event of accident, consistent with the European road safety charter. The ST87M01 is the most integrated module in the market, embedding all the functions needed to support this application and paving the way towards safer and interconnected mobility.

NB-IoT certifications for the ST87M01 also come at the right time for design-in to new electric, water and gas smart-metering roll-outs planned worldwide. In particular, the module represents a very effective solution for deployment in the new Indian smart metering infrastructure, which is estimated to reach 250 million units in the next five years.

The module integrates a state-of-the-art ST4SIM embedded SIM (eSIM), certified according to the latest industry standards, such as the latest GSMA eSA (Security Assurance) certification. The ST4SIM also includes a certified embedded secure element (eSE). The complete circuitry is contained within an ultra-small 10.6mm x 12.8mm LGA package.

Low energy consumption features maximize the runtime of battery-powered applications. The integrated native GNSS receiver ensures optimized power-savings features while operating during NB-IoT sleep time slots.

The ST87M01 integrates easily with other components from ST's portfolio such as [MEMS intelligent actuators and sensors](#), interfaces, and other connectivity to address many more IoT applications that need precise geolocation. These include tracking devices for pets and personal possessions, industrial asset tracking, and sensors for use throughout smart infrastructure, smart agriculture, and others.

The ST87M01 is sampling now to major customers worldwide. Please contact your ST sales office for pricing options and sample requests.

For more information, please visit www.st.com/en/wireless-connectivity/nb-iot-products.html.

Technical Notes to Editors
A selection of protocol stacks is available to handle popular IoT use cases, including IPv6, TCP/UDP, CoAP/LWM2M, MQTT, HTTP/HTTPS and TLS/DTLS.

The ST87M01 is designed to support both standardized 3GPP AT commands, along with ST enhanced AT commands.

About STMicroelectronics
At ST, we are over 50,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An integrated device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and connectivity. We are committed to achieving our goal to become carbon neutral on scope 1 and 2 and partially scope 3 by 2027. Further information can be found at www.st.com.

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