



Press Release

Bluetooth low energy 4.2 module brings state-of-the-art performance and power efficiency to IoT designs

Sensing and control applications can be embedded on top of the NINA-B1 module stack



Thalwil, Switzerland – February 22, 2016 – u-blox (SIX:UBXN), a global leader in wireless and positioning modules and chips, today announced the NINA-B1 Bluetooth low energy (Bluetooth Smart) stand-alone module. Compliant to the latest Bluetooth 4.2 specification and certified to global radio type approvals, the module is key to bringing Bluetooth low energy-based Internet of Things (IoT) designs to market in the shortest possible time.

Comprising an antenna, radio transceiver, an embedded ARM Cortex® M4F microcontroller and a Bluetooth low energy stack, NINA-B1 is ready for design-in for many applications. It is ideal for a wide range of IoT solutions, such as IoT connected sensors, building automation, medical devices, telematics applications, as well as monitoring and control systems. Supporting ARM® mbed™, the module and its evaluation kit (EVK) are open for designers who wish to embed their own application on top of the Bluetooth low energy stack.

The latest Bluetooth 4.2 specification offers an enhanced connection security capability, IPv6 and faster throughput compared to previous versions. The module is ready to support the future Bluetooth 5.0 specification by means of a firmware upgrade. The application memory – 512 kB Flash and 64 kB RAM – allows for firmware upgrades to be performed over-the-air (OTA).

With the u-blox Serial Port service pre-loaded, NINA-B1 enables fast integration into devices running serial protocols. AT commands, compatible with other u-blox modules, keep configuration efforts to a minimum.

NINA-B1 has advanced power management features to keep the power consumption down to 400 nA with wake up on an external event, 2 µA during idle state, and 5 mA (at 0 dBm) at 3.0 VDC, during transmission.

With integrated NFC (Near Field Communication) capability, the module may be used to support Touch-and-Pair use cases for simplified Bluetooth pairing.

“NINA-B1 is a fully certified Bluetooth low energy module with excellent RF capabilities. The open architecture approach to software development from ARM® mbed™ speeds up the IoT application development, thus greatly reducing the time to market and the related costs,” explains Pelle Svensson, Product Marketing Short Range Radio at u-blox.

The module is a complete stand-alone Bluetooth low energy product and does not require any additional hardware. Sensors, accelerometers, LEDs along with other sensing and control devices can be connected directly to the module via GPIO, ADC, I2C, SPI and UART interfaces. It is available in two versions, NINA-B112 (10 x 14 mm) with integrated antenna, and NINA-B111 (10 x 10 mm) with an antenna pin designed for customer-specific antenna solutions.

To watch the video: <https://youtu.be/l1f30R42gfY>

NINA-B1 will be displayed at the u-blox booth (Hall 5: 5-158) of [Embedded World](#) on 23-25 February 2016.

About u-blox

Swiss u-blox (SIX:UBXN) is a global leader in wireless and positioning semiconductors and modules for the automotive, industrial and consumer markets. Our solutions enable people, vehicles and machines to locate their exact position and communicate wirelessly over cellular and short range networks. With a broad

locate, communicate, accelerate



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portfolio of chips, modules and software solutions, u-blox is uniquely positioned to empower OEMs to develop innovative solutions for the Internet of Things, quickly and cost-effectively. With headquarters in Thalwil, Switzerland, u-blox is globally present with offices in Europe, Asia and the USA.

(www.u-blox.com)

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