

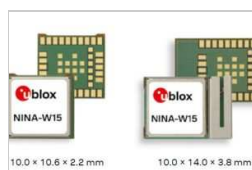

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 By [Steve Bush](#) | 13th November 2018

## Electronica: Bluetooth 5.0 Long Range module in 8x8x1mm SIP

RF module firm [Insight SiP](#) has announced what it believes to be the first fully Bluetooth 5.0 Long Range compliant RF module in a miniature package at Electronica. It measures 8 x 8 x 1mm.

### RECOMMENDED ARTICLES



10 x 14mm modules offers Wi-Fi and Bluetooth simultaneously

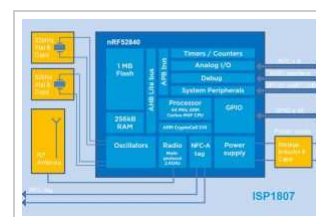


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Called ISP1807-LR, it is based on Nordic Semiconductor's nRF52840 chip and includes a Bluetooth 5 stack with: long range, high throughput, advertising extensions and improved coexistence along with IPv6 connectivity and Mesh capabilities. Also in there are 32MHz and 32kHz crystals, RF antenna, matching circuit and a DC-DC convertor.

"With these characteristics, the ISP1807-LR module is well-equipped to form the hub of IoT solutions," said Insight, which also sees it being used in wearables, smart homes, industrial sensors, remote controls, gaming controllers and



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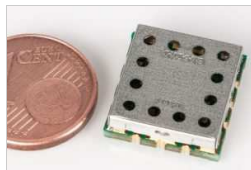


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## IoT app development



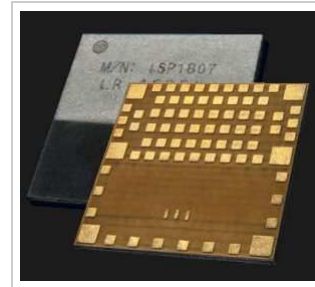
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beacons.

The Nordic chip has an Arm Cortex-M4 processor with floating point extensions, plus 1Mbyte flash and 256kB RAM so there is spare capacity for customer applications.



The embedded Arm Cryptocell-310 processor provides security and cryptographic functions, saving CPU processing time, and a USB interface is available.

ISP1807-LR also supports protocols including BLE, Thread, ANT, ANT+ and a range of proprietary 2.4GHz protocols, and an NFC Tag is available for pairing.

“Free qualified BLE stacks for nRF52840 are implemented in the S140 SoftDevices and enable it to be used in Central, Peripheral, Observer or Broadcaster with up to 20 connections,” said Insight.

Other interfaces include 46 GPIOs with ADC and USB, SPI, I2C and UART buses.

The module is pin to pin compatible with the ISP1507.

To support developers, there is a development kit and sample software.

At Electronica 2018, Insight SiP will be represented on the stands of Texim Europe (418 hall B5), Tekmodul (418 hall C3) and Rutronik (434 hall C4 and 312 hall C3).

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