



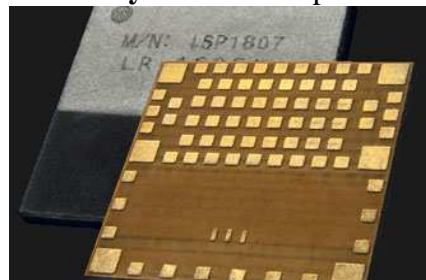
## Bluetooth 5.0 long range compliant module announced

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Source: [Insight SiP](#)

Posted By : Lanna Cooper



**Insight SiP is launching the ISP1807-LR module, which it believes to be the first fully Bluetooth 5.0 Long Range compliant RF module in a miniature SiP package. It measures 8x8x1mm, making it the smallest of its type available.**

This miniature BLE module is based on the nRF52840 chip from Nordic Semiconductor and represents the latest in Bluetooth 5 Long Range module technology. It offers a Bluetooth 5 stack including long range, high throughput, advertising extensions and improved coexistence along with IPv6 connectivity and Mesh capabilities. With these characteristics, the ISP1807-LR module is well-equipped to form the hub of IoT solutions.

The ISP1807-LR module is a suitable choice for IoT solutions requiring complex applications, fast processing and/or best in class power consumption. These include advanced wearables, smart home and industrial sensors, advanced remote controls, gaming controllers and beacons.

The BLE part of the ISP1807-LR integrates the nRF52840 chip from Nordic Semiconductor and employs the proven design of Insight SiP's existing BLE product range. Like all of Insight's products, it is a fully featured BLE device with integrated 32MHz / 32Khz crystals, RF antenna and matching circuit and DC/DC convertor, thus having maximum power saving efficiency.

With an M4 floating point processor, the ISP1807-LR Bluetooth Smart Module can run fast and advanced

calculations and support sophisticated applications with its huge memory capacity (1MB Flash and 256kB RAM). The embedded ARM Cryptocell-310 on-chip processor provides security and cryptographic functions, saves CPU processing time and reduces energy consumption. A USB interface is also available, meaning this device offers a range of capabilities.

The Nordic Semiconductor chip's BT5 Long Range feature is perfectly complemented by Insight SiP's proven advanced 'Antenna in Package' technology, which allows customers to get the most out of the long range capability. Bluetooth long range offers up to four times the range of a standard BLE solution, enabling a new whole new set of use cases for BLE technology, in domains such as smart buildings, lighting, agriculture, infrastructure management and many others.

Nick Wood President of Insight SiP said: "We're delighted to offer the ISP1807-LR to customers who want to integrate an ultra-miniature, high performance RF module with a broad feature set into their products. The launch of this fully Bluetooth 5.0 Long Range compliant RF module provides a new set of powerful options for our customers. We are proud to demonstrate this latest step forward for our unique Antenna in Package technology. Together with our pin compatible 15-series devices, we now supply a full range of products for every situation."

The ISP1807-LR supports protocols including BLE, THREAD, ANT/ANT+ and a range of proprietary 2.4GHz protocols. An NFC Tag is available for OOB pairing. Free qualified BLE stacks for nRF52840 are implemented in the S140 SoftDevices and enable ISP1807-LR to be used in Central, Peripheral, Observer or Broadcaster with up to 20 connections.

A full set of interfaces is integrated into the device for analog or digital peripherals including a configurable 46 GPIOs with 8 ADC and USB, SPI, I2C and UART buses. Thanks to pin to pin compatibility with the ISP1507, it also provides an easy upgrade to already designed applications.

To support product developers, Insight SiP offers a complete development kit together with sample software that provides everything required out of the box to start developing a solution on day one.

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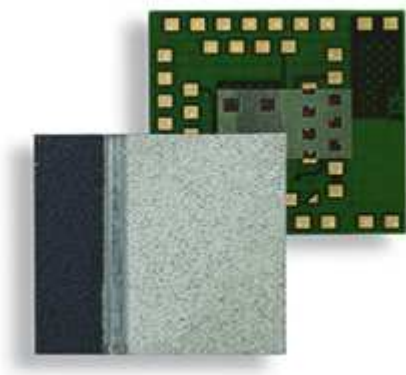
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