



Ultrakompakt 'Long Range' Bluetooth 5.0 modul

Det franske firma Insight SiP har præsenteret, hvad firmaet betegner som industriens hidtil mindste Bluetooth 5.0 'Long Range' modul (in english).

Insight SiP, the specialist in ultra-miniature RF modules, 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 only 8x8x1 mm, 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 the ideal 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 32 MHz / 32 Khz 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 (1 MB Flash and 256 kB 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 unique 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 4x 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 explains:

- 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 2.4 GHz 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.

With 20 experts in its R&D team based in Sophia Antipolis in the south of France, Insight SiP specialises in the miniaturisation of RF modules using System-in-Package technology. Its unique offerings include the smallest complete BLE module in the world, the world's first Antenna-in-Package, the world's first UWB/BLE and LoRa/BLE combo modules with integrated antennas, and the world's smallest microcomputer in an SD card format.

Created in 2005 by experienced electronic industry executives, Insight SiP has been a global business since 2008 with a subsidiary in the US, a sales office in Japan and a network of over 30 distributors across the globe.

22/11 2018