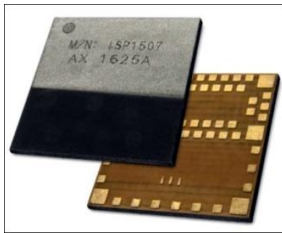


Sep 27, 2018

INSIGHT SiP INTRODUCES BLE MODULE BASED ON NORDIC SEMICONDUCTOR SYSTEM-ON-CHIP

[Insight SiP](#), a provider of miniature RF modules, has launched its ISP1507-AL module, which features Bluetooth Low Energy (BLE) technology. Based on [Nordic Semiconductor's](#) nRF52 system-on-chip, this module offers wireless connectivity with an embedded [antenna](#), an integrated DC-DC converter, and both radio and [synchronization](#) crystals.

The new module is suitable for mesh-relay nodes, the Internet of Things (IoT), wearables, industrial sensors and home network applications, the company reports. This Bluetooth 5.0-ready module uses the nRF52 series chipset from Nordic Semiconductor, along with system-in-package and [antenna-in-package](#) technology. The module measures 8 millimeters by 8 millimeters, with a thickness of less than 1 millimeter.



The ISP1507-AL module integrates the WLCSP nRF52810-CAAA [chip](#) from Nordic Semiconductor, which offers a 32-bit [ARM](#) Cortex M4 [CPU](#) with a floating point processor, 192 kilobytes of [flash memory](#), 24 kilobytes of [RAM](#), a set of 13 I/Os, analog and digital peripherals, SPI, I2C and GPIO. Combined with its integrated 32 MHz / 32 KHz crystals, RF [antenna](#) and matching circuit and DC-DC converter, this module forms a standalone BLE node, the company reports. Module certification for the global market is currently pending. The ISP1507-AL is available now, and all modules in the ISP1507 product range are pin-to-pin-compatible.

According to Insight SiP, the module can act as an application hub, replacing additional microcontrollers required in previous generations of BLE products. Despite its computing power, power consumption is lower than previous generations, with performance typically at 5.8 mA for transmission and reception, 0.8 μ A for standby mode and 0.3 μ A for deep sleep mode. Power management enables battery lifetimes of up to several years on a single coin-cell battery. Transmission output power reaches +4 [dBm](#) and reception sensitivity is at -96 [dBm](#).

The module runs Nordic's Bluetooth soft device, which now supports a Bluetooth V4.2 stack and is Bluetooth 5.0-ready. To support product developers, Insight SiP offers a development kit with sample software.