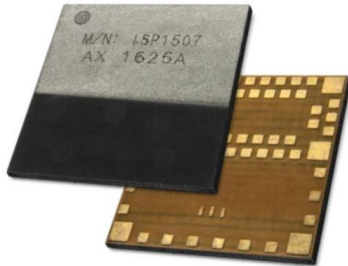


Bluetooth module integrates DC-DC converter and crystals

September 18, 2018 // By Julien Happich



Insight SiP's ISP1507-AL ultra-miniature Bluetooth modules is based on the class-leading Nordic Semiconductor nRF52 series, offering a 32 bits ARM Cortex M4 CPU with floating point processor, 192 kB flash memory, 24 kB RAM, a complete set of 13 IOs, 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 convertor, this module forms a standalone Bluetooth Low Energy node.

This Bluetooth 5.0-ready module is the smallest on the market at only 8x8mm, claims Insight SiP, with a thickness less than 1mm. Despite the significant computing power on offer, power consumption is even lower than previous generations, drawing only 5.8mA for transmission, and reception, 0.8 μ A for standby mode and 0.3 μ A for deep sleep mode. Advanced power management enables battery lifetimes up to several years on a coin cell battery. Transmission output power reaches +4 dBm and reception sensitivity is also improved to -96 dBm. The ISP1507-AL module is well suited for mesh relay nodes and price sensitive solutions and suitable for IoT, wearable, industrial sensor and home network applications.

Insight SiP - www.insightsip.com