

InsightSiP develops:

Super Small sized Modules integrating two antennas, LoRa and BLE

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[Maoko Murao, EE Times Japan]

InsightSiP, specializing in RF and SiP (System in Package) modules, announced three new products in November 2018. They are [ISP170801] handling both LoRaWAN and Bluetooth Low Energy(BLE), [ISP1807] coping with Bluetooth 5 and Bluetooth Mesh, and [ISP1507] dealing with Bluetooth BT5 Ready.

ISP170801 is targeted for smart city, smart grid and industrial internet, and ISP1807 can be for wearable device, beacon and remote control, and ISP1507 can be for IoT, general device and home automation.

Integrating antennas for different frequencies in the module

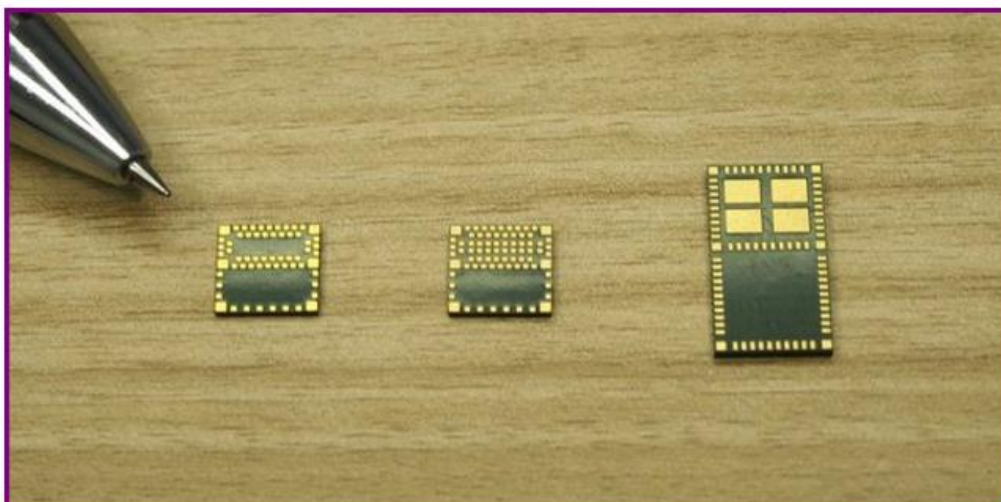
The most remarkable product in the three modules is ISP170801.

ISP170801 integrates ARM's [Cortex-M4] and two antennas for LoRaWAN and BLE. The size is 10 x 18 x 1.5mm.

It cannot be easy to integrate the two antennas for Bluetooth 2.4GHz and LoRa sub Giga into such a small package since cross talk between the different frequencies occurs

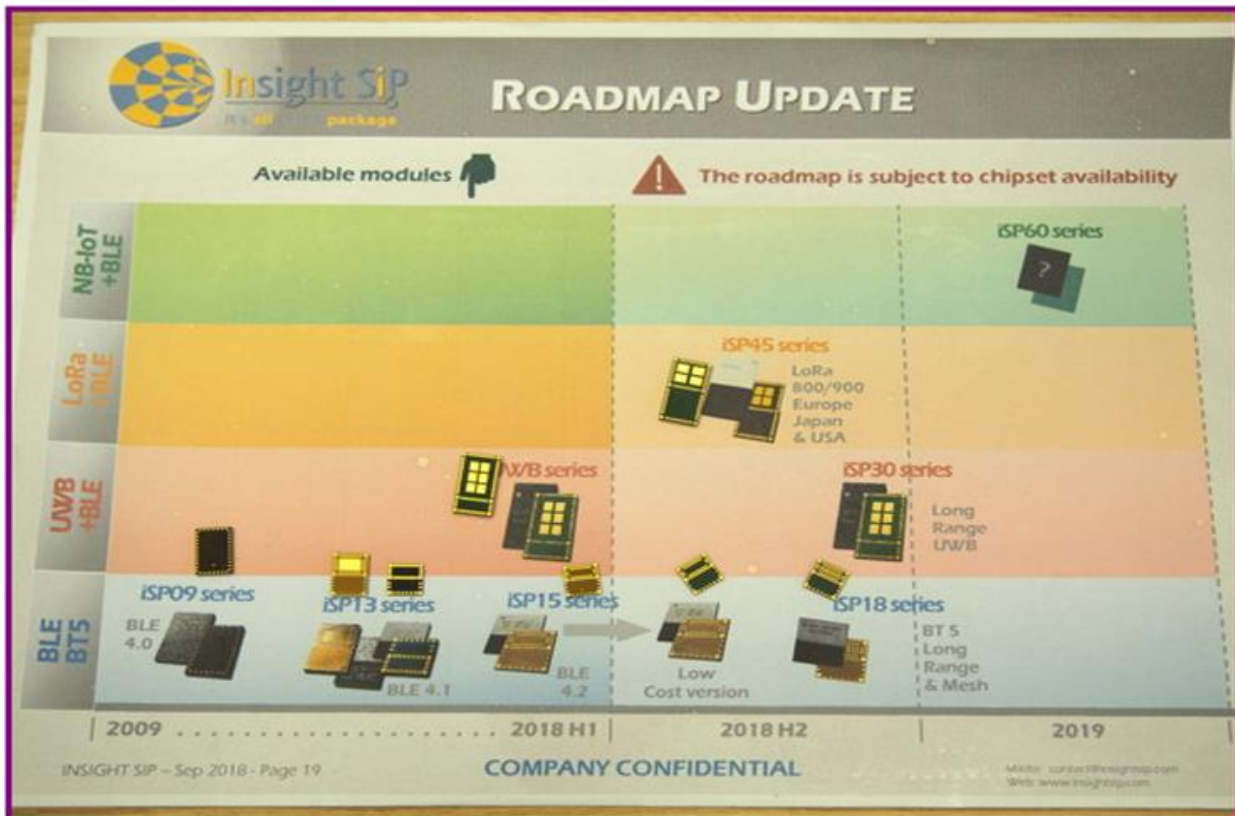
when the antennas are placed in close vicinity. On the other hand, if you try avoiding the interference it makes difficult to design the small package size. InsightSiP has obtained the patented for implementing the two antennas design. Mr. Michel Beghin, InsightSiP CEO, says that the company spent three years developing this technology using two layers to configure the antennas.

With this two antennas module, customers can easily develop own products and reduce the cost.



From left [ISP1507] [ISP1807] [ISP170810]. The portion without metal integrates the antennas.

There are several kinds of LPWA (Low Power Wide Area) but Mr Beghin says “We selected LoRa WAN first off and developed ISP170801 because LoRa has got more needs than other LPWA. In 2019, we would extend more features. I cannot mention much but will put some thoughts into NB (Narrow Band) IoT and Bluetooth combination” and added “Our product strategies is to develop modules that combines both short- and long-range communication such as Bluetooth and LoRa. Using those modules customers could preclude additional costs and realize various applications serving both long and short haul communication.”



InsightSip Road Map

ISP1507 has been already in volume production and ISP1807 will be soon in the production. As for the samples of ISP170801 it will be available till 2018 end. Mr. Beghin added with plenty of confidence “we have already strong demands for those three products.”

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