



Hi2115 NB-IoT Communications Chip

Product Brief

Issue

4

Date

17 Jul 2017

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Hi2115 Product Brief

HiSilicon's Hi2115 is the world's most power efficient and integrated cellular IoT chip solution, supporting Rel-14 NB-IoT. It is a second generation Boudica family chip with integrated baseband, transceiver, power management unit, application processor, application peripherals and memory.

The ultra-low power design is applied at system level, in the different 3GPP modes of operation (DRX/eDRX/PSM), to deliver up to 15 years battery life.

The RF is flexible to operate in bands from 450 to 2100 MHz and can be integrated into a multitude of device designs, including a universal module SKU for all the bands in the smallest physical footprint.

Key Features

- Operates 3GPP bands over 450-2180MHz.
- Can support 3GPP Rel14 NB-IoT air interfaces and protocols **Error! Reference source not found.**
- 3GPP 164 dB Maximum Coupling Loss (equivalent to a 179dB link budget)
- Integrated radio transceiver, protocol processor
- Dedicated Application Processor with integrated memory (256 kB Flash and 64kB RAM)
- Integrated analogue application peripherals including temperature sensor, capacitive touch sensor, ADCs, DACs, programmable current source and interrupt comparators.
- Integrated secure core for crypto functions
- Integrated serial interfaces: UART, I2C and SPI
- Ultra-Low Power Sleep mode
- Integrated Power Management Unit for Direct-from-Battery operation

Applications

- Smart Metering and Smart Grid
- Traffic Management and Monitoring
- Security and Asset Tracking
- White Goods and Automotive Service Data and Diagnostics
- Environmental Monitoring and Control
- Tele-health and Patient Monitoring
- Smart Cities (waste management, lighting, pest control, building climate control, environmental monitoring, etc)

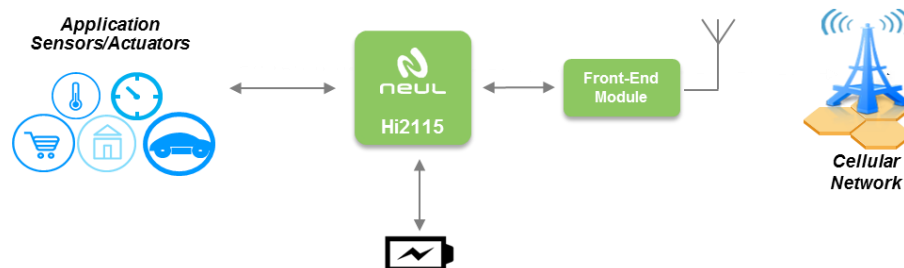


Figure 1: System overview