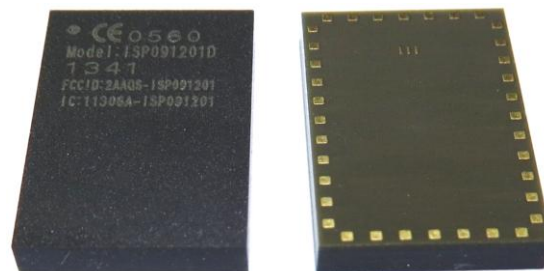


ISP091201 Bluetooth Low Energy Module with Integrated Antenna

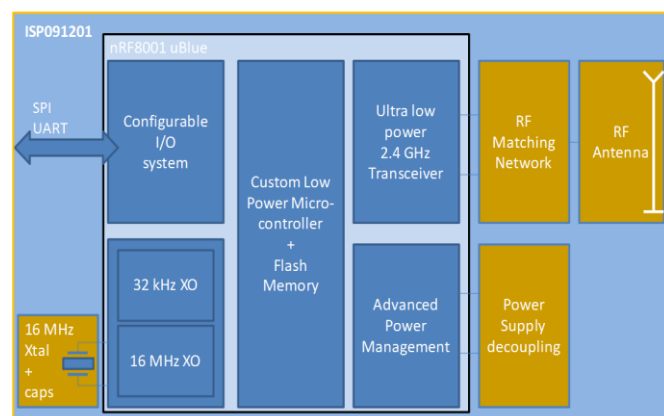


Key Features

- ✚ Single Mode BLE v4.0 Slave
- ✚ Nordic Semiconductor µBlue products based
- ✚ Includes transceiver, baseband, software stack
- ✚ Ultra Low Power Consumption
- ✚ Single 1.9 to 3.6 V supply
- ✚ Very small size 8.0 x 12.0 x 1.5 mm
- ✚ Temperature -40 to 85 °C
- ✚ Fully integrated RF matching and Antenna
- ✚ Integrated 16 MHz Crystal Clock

Certifications

- ✚ FCC Limited Modular Certification
- ✚ Complies with CE
- ✚ Complies with IC
- ✚ Bluetooth SIG certified
- ✚ RoHS compliant



tion to the transceiver. As the module has several end applications, the antenna was designed to be compatible with several ground plane sizes including that of a USB dongle and a cell phone. The module can operate as a standalone Bluetooth sensor node with the addition of a transducer, a small external microprocessor to run application software, a 32 kHz crystal and a DC power source.

Applications

- ✚ Space constrained BLE Slave Devices
- ✚ Sport and fitness sensors
- ✚ Health care sensors
- ✚ Out of Range (OOR) sensors
- ✚ Personal User Interface Devices (PUIID)
- ✚ Remote controls

General Description

This module is based on Nordic Semiconductor nRF8001 µBlue Bluetooth Low Energy Platform. The nRF8001 is a single chip transceiver with an embedded baseband protocol engine, suitable for ultra low power wireless applications conforming to the Bluetooth Low Energy Specification contained within v4.0 of the overall Bluetooth specification. The nRF8001, used in the current revision of ISP091201, is a production product using a RoM for the baseband protocol engine.

The µBlue transceiver is specifically designed for both PC peripherals and ultra low power applications such as sports and wellness sensors. For sensor applications, the ultra low power consumption and advanced power management enables battery lifetimes up to several years on a coin cell battery.

The ISP091201 module size measures 8 x 12 x 1.5 mm. The module integrates all the decoupling capacitors, the 16 MHz crystal and load capacitors plus the RF matching circuit and antenna in addi-