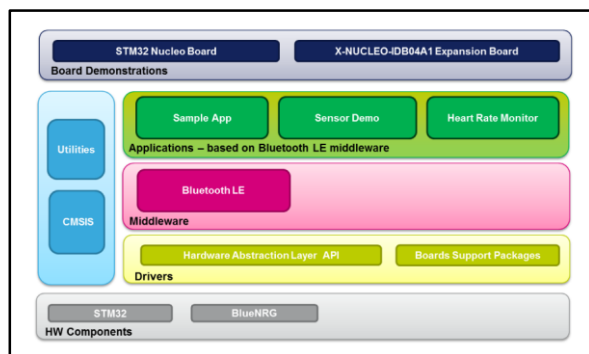


STM32Cube software expansion for the X-NUCLEO-IDB04A1 BlueNRG expansion board

Data brief



Features

- Complete middleware to build Bluetooth low energy applications
- Easy portability across different MCU families, thanks to STM32Cube
- Numerous examples for quick learning
- Support for heart rate monitor GATT service
- Low-power optimization
- Free, user-friendly license terms

Application

- Sample App
- Sensor demo
- Heart rate monitors

Description

The X-CUBE-IDB04_L0 software package is an expansion for STM32Cube. The source code included in this package runs on STM32Nucleo boards equipped with the BlueNRG expansion board (X-NUCLEO-IDB04A1). BlueNRG is a very low power Bluetooth Low Energy (BLE) single-mode network processor, compliant with Bluetooth specifications core 4.0. The source code of this package is based on STM32Cube to ease portability across different STM32 MCU families. The drivers extract low level details of the hardware and allow the middleware software to provide Bluetooth LE features in a hardware-independent fashion. The package also includes some sample applications that the developer can use to start experimenting with the code. The software includes low power optimizations to allow system power consumption of a few microamps. Sample App shows communication between two Nucleo boards equipped with the X-NUCLEO-IDB04A1A BlueNRG expansion boards. Sensor demo allows the sending of simulated environmental and acceleration data to a Bluetooth low energy compatible smartphone. Heart rate monitor implements the standard Bluetooth heart rate service and allows communicating simulated data to a compatible smartphone.



1 Revision history

Table 1: Document revision history

Date	Rev	Changes
07-Nov-2014	1	First release.

Obsolete Product(s) - Obsolete Product(s)

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