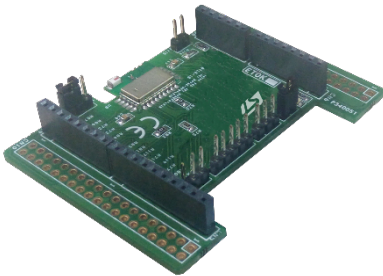


## Evaluation platform based on very low power module for Bluetooth® low energy v4.2



### Features

- Expansion board based on the SPBTLE-1S very low power application processor module for Bluetooth® Low Energy v4.2
  - Supports master and slave modes
  - Multiple roles supported simultaneously
- Embedded BlueNRG-1 BLE SoC
  - High performance, ultra-low power Cortex-M0 32-bit based core
  - Programmable embedded 160 kB Flash
  - 24 kB embedded RAM with data retention
  - AES security co-processor
- Configurable as a network coprocessor via dedicated firmware supporting commands over SPI interface
- Embedded BALF-NRG-01D3 integrated matched balun with harmonic filter, and high efficiency chip antenna
- Up to +4 dBm available output power
- Equipped with 1 x UART, 1 x I<sup>2</sup>C, 1xSPI and 1x PDM interfaces, 14 x GPIO, watchdog, RTC, and DMA controller
- Complemented with Bluetooth low energy protocol stack library (GAP, GATT, SM, L2CAP, LL)
- Compatible with ST Morpho connectors
- Equipped with Arduino UNO R3 connectors
- SWD programming and debugging connector
- SPBTLE-1S certification
  - CE qualified
  - FCC, IC modular approval certified
  - TYPE qualified
  - BQE qualified
- Pre-programmed UART bootloader
- Operating supply voltage: from 1.7 to 3.6 V
- RoHS compliant

Product status link

[EVAL-SPBTLE-1S](#)

### Applications

- Internet of Things
- Smart Home
- Building and industrial automation
- Smart Lighting
- Remote and access control
- Fitness, wellness and sports
- Consumer medical
- Security and proximity
- Assisted living

- PC and smart phone peripherals

## Description

The [EVAL-SPBTLE-1S](#) evaluation platform is based on the SPBTLE-1S very low power application processor module compliant to Bluetooth® Low Energy v4.2 specifications and supporting master, slave and simultaneous master-and-slave roles.

The [EVAL-SPBTLE-1S](#) is compatible with the ST Morpho and Arduino UNO R3 connector layout (the user can mount the ST Morpho connectors, if required), allowing the expansion of every board including those connector layouts.

The SPBTLE-1S module is FCC certified (FCC ID: S9NSPBTLE1S), IC certified (IC: 8976C-SPBTLE1S), SRRC certified (SRRC CMIIT ID: 2017DJ5956), TYPE certified (Certification number 006-000535), CE/RED certified, and Bluetooth SIG End Product certified (Declaration ID D034470, Qualified design ID 92838).

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
11-Apr-2019	1	Initial release.

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