

## NFC Dynamic Tag sensor node evaluation board



### Features

- **ST25DV64K** dynamic NFC tag solution based on 64K-bit (8K-Byte) EEPROM and with I<sup>2</sup>C interface, Fast Transfer Mode and Energy Harvesting features
- **STM32L031K6** ultra-low-power ARM Cortex-M0+ MCU running at 32 MHz with 32-Kbytes Flash and 8-Kbytes RAM
- **LIS2DW12** ultra-low-power high-performance three-axis linear accelerometer
- **LPS22HB** ultra-compact piezo-resistive absolute pressure sensor which functions as a digital output barometer: 260-1260 hPa
- **HTS221** capacitive digital sensor for relative humidity and temperature
- **STLQ015** low drop linear regulator power management
- CR2032 Battery powered (not included)
- STM32Cube function pack (**FP-SNS-SMARTAG1**)
- Android (Google Play) and iOS demo apps (ST SmarTag)
- Suitable for the following applications:
  - Internet of Things
  - Supply Chain and Cold-Chain Management
  - Smart building, home and city
  - Retail and apparel
  - Smart packaging
  - Medical and pharmaceutical
  - Batteryless sensing
  - Smart agriculture (soil control, animal tracking, etc.)

### Product summary table

<b>STEVAL-SMARTAG1</b> NFC Dynamic Tag sensor node evaluation board
<b>ST25DV64K</b> 64-Kbit dynamic NFC/RFID tag NFC Forum type V with I2C interface, fast transfer mode and energy harvesting
<b>STM32L031K6</b> ultra-low-power ARM Cortex-M0+ MCU with 32-Kbytes Flash, 32 MHz CPU
<b>LIS2DW12</b> 3-axis MEMS accelerometer, ultra low power, configurable single/double-tap recognition, free-fall, wakeup, portrait/landscape, 6D/4D orientation detections
<b>LPS22HB</b> ultra-compact piezoresistive absolute pressure sensor, 260-1260 hPa, digital output barometer, full-mold, holed LGA package (HLGA)
<b>HTS221</b> capacitive digital sensor for relative humidity and temperature
<b>STLQ015</b> 150 mA - ultra low quiescent current linear voltage regulator

### Description

This smart and flexible NFC Tracker evaluation board with sensors includes a comprehensive software library and a sample application to monitor and log sensor data over NFC from an Android or iOS device.

The ultra-low power sensor node evaluation board mounts an ST25DV NFC Tag, an STM32L0 ARM Cortex M0+, environment sensors (temperature, humidity and pressure) and motion (accelerometer) sensor.

The evaluation board features NFC harvesting to supply power and a battery cradle for a CR2032 battery.

## **1 Schematic diagrams, bill of materials and other resources**

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For schematic diagrams, bill of materials and other resources, please visit the [STEVAL-SMARTAG1 page](#) on [www.st.com](http://www.st.com)

### **1.1 Application development**

For further resources to help you build your application, you can try the [Connectivity application page](#) on [www.st.com](http://www.st.com)

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
19-Feb-2018	1	Initial release.
07-Mar-2018	2	Updated <a href="#">Features</a> .
22-Jun-2018	3	Updated cover image.

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