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NFC Dynamic Tag sensor node evaluation board



Features

- **ST25DV64K** dynamic NFC tag solution based on 64K-bit (8K-Byte) EEPROM and with I²C 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

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

For schematic diagrams, bill of materials and other resources, please visit the [STEVAL-SMARTAG1 page](#) on 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

Revision history

Table 1. Document revision history

Date	Version	Changes
19-Feb-2018	1	Initial release.
07-Mar-2018	2	Updated Features .
22-Jun-2018	3	Updated cover image.

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