CLOUD-ST25TA

NFC Forum Type 4 Tag IC demonstration board

Data brief

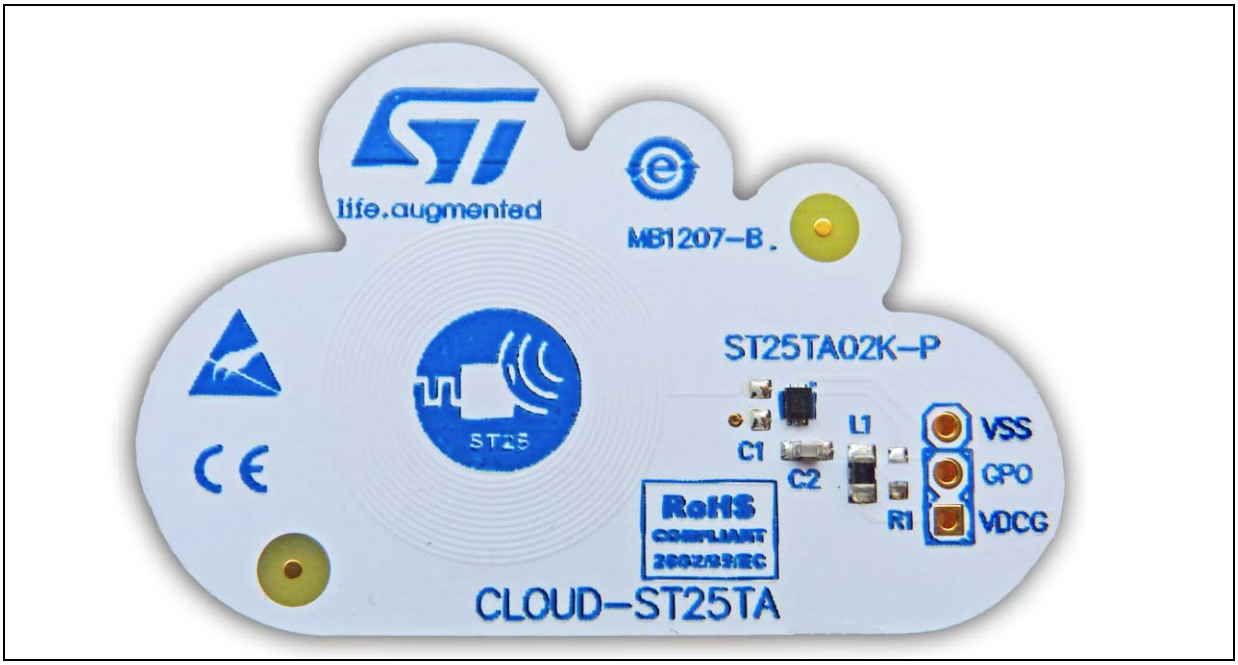
Features

- Ready to use printed circuit board
  - ST25TA02K-P NFC/RFID Tag in UFDFPN5 ECOPACK®2 package
  - 19 mm single layer inductive antenna etched on the PCB
- Contactless interface
  - NFC Forum Type 4 Tag
  - ISO/IEC 14443 Type A
  - 106 kbps data rate
  - Internal 50 pF tuning capacitance allowing small inductive antenna design
- Memory
  - 256 Byte (2 Kbit) EEPROM with NDEF data support
  - 200 years data retention
  - 1 million erase-write cycles endurance
  - 128 bit password data protection
  - 20 bit event counter for read or write access with anti-tearing feature
- Digital pad
  - Configurable general purpose output (GPO) indicating, for example, RF field detection
- Associated Android application
  - Android application for Smartphone used as NFC Reader is available on Google Play website or *www.st.com*

Table 1. Device Summary

Reference	Order Code
CLOUD - ST25TA	CLOUDST25TA02K-P

Figure 1. CLOUD-ST25TA board picture (top view)



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1 Description

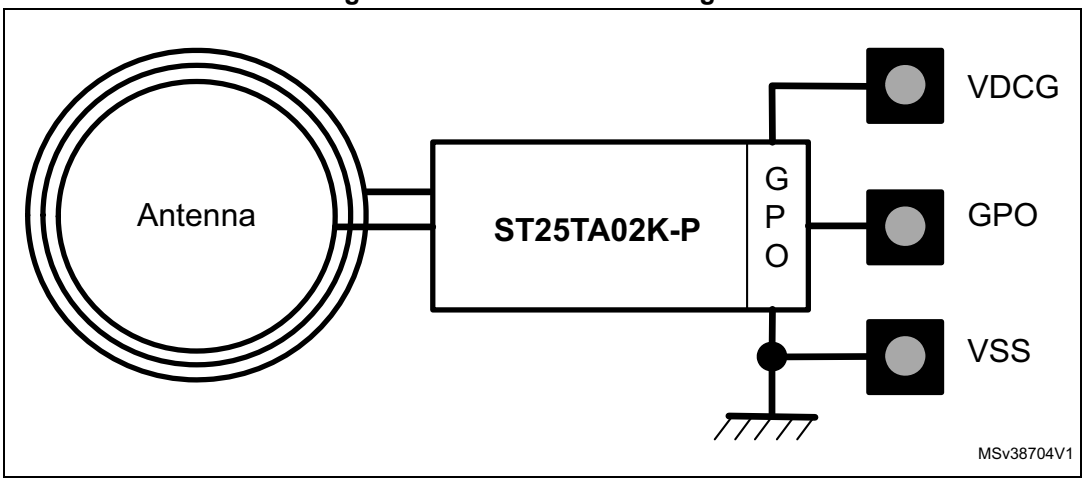
The CLOUD-ST25TA is a ready-to-use demo board intended to evaluate the ST25TA02K-P.

The ST25TA02K-P device is a dynamic NFC/RFID tag IC with a digital General Purpose Output embedding a 2 Kbit EEPROM that supports NDEF Tag Application per NFC Forum Type 4.

The device communicates over the ISO/IEC 14443 Type A protocol and is fully powered by the RF field. In case the GPO output is used, an external reference voltage is required to set the high level voltage of the GPO signal in order to be directly compatible with the IO voltage of the MCU or Host without the need of any level shifter.

The GPO signal of ST25TA02K-P product is active HIGH when asserted and thus can be used as a rising edge interrupt. It may be configured through the RF interface for various uses like indicating Field Detection (by default) amongst others to wake-up an MCU or Host like Bluetooth or Wifi chipset.

Figure 2. Functional Block diagram



2 Revision history

Table 2. Document revision history

Date	Revision	Changes
23-Jun-2015	1	Initial release.

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