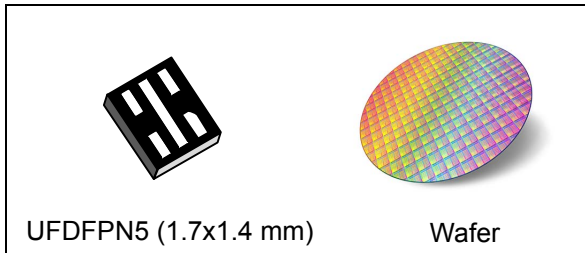

**NFC Type 5 / RFID tag IC with EEPROM up to 2-Kbit,
product identification and protection**

Data brief



- System configuration: write protected by a 32-bit encrypted password
- Permanent write locks at a block level

Product identification and protection

- Kill mode and untraceable mode
- Tamper detect capability
- TruST25™ digital signature
- Electronic Article Surveillance (EAS) capability

Privacy protection

- Consumer privacy can be protected through the following features:
 - Kill mode
 - Untraceable mode
- In association with:
 - Passwords with cover coding
 - Data and configuration locks (permanent or temporary)

Temperature range

- From - 40 to 85 °C

Package

- 5-pin package
- ECOPACK2® (RoHS compliant)

Compatibility with LRI2K product

- The ST25TV02K is fully compatible with LRI2K devices in terms of functionality, with two exceptions:
 - Kill command requires option_flag to be set to 0
 - Error codes and error generation might be different on a per command basis

Features**Contactless interface**

- Based on ISO/IEC 15693
- NFC Forum Type 5 tag certified by the NFC Forum
- Supports all ISO/IEC 15693 modulations, coding, subcarrier modes and data rates
- Custom Fast read access up to 53 Kbit/s
- Single and multiple block reads
- Single block writes
- Internal tuning capacitance: 23.5 pF, 97 pF
- Proprietary Inventory commands for speeding up the inventory process

Memory

- Up to 2Kbits of EEPROM
- RF interface accesses blocks of four bytes
- Write time:
 - From RF: typical 5 ms for one block
- Data retention: 60 years
- Minimum endurance: 100 k write cycles
- 16-bit event counter with anti-tearing

Data protection

- User memory: two or three areas, read and/or write protected by:
 - Two 32-bit encrypted passwords for three areas or one 64-bit encrypted password for two areas

1 Description

The ST25TV device is an NFC/RFID tag IC with a tamper proof feature, and specific modes to protect customer privacy.

It features a digital signature generated by TruST25™ (a set of software and procedures), used to prove the origin of the chip in cloning detection. It embeds a configurable EEPROM with 60-year data retention, and can be operated from a 13.56 MHz long range RFID reader or an NFC phone.

The contactless interface is compatible with the ISO/IEC 15693 standard and NFC Forum Type 5 tag.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
05-Apr-2017	1	Initial release.
04-Oct-2017	2	Updated: – <i>Features</i> – <i>Section 1: Description</i>
06-Apr-2018	3	Updated: – <i>Features</i>

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