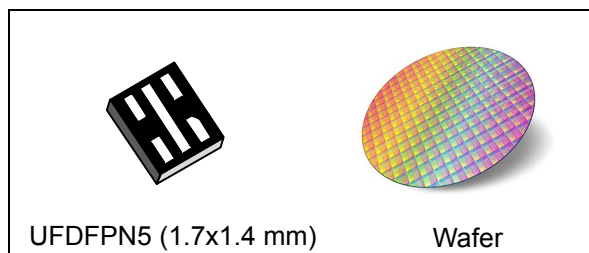

**NFC Type 5 / RFID tag IC with EEPROM up to 2-Kbit,
product identification and protection**

Data brief



UDFPN5 (1.7x1.4 mm)

Wafer



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

- 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

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: – Features – Section 1: Description
06-Apr-2018	3	Updated: – Features

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[STMicroelectronics:](#)

[ST25TV02K-AD6H3](#) [ST25TV02K-AD6G3](#)