

# ST25DV-I2C series

## Dynamic NFC/RFID tags

## ISO/IEC 15693 NFC Forum Type V



### Dynamic ISO/IEC 15693 NFC Forum Type V with I<sup>2</sup>C interface, fast transfer mode and energy harvesting

ST25DV-I2C is the new member of the ST25 family. It is a future-proof dynamic tag compliant with NFC Forum Tag Type V and ISO/IEC 15693 standards, which offer a wide range of new features and capabilities. The EEPROM memory bank can be accessed either by a low-power I<sup>2</sup>C interface or by an ISO/IEC 15693 RF interface operating at 13.56 MHz. An additional 256-Byte Fast Transfer Mode buffer allows a rapid data transfer between the RF and I<sup>2</sup>C part. It also features an energy harvesting and RF status function. In addition, the series offers multiple 64-bit passwords for a flexible data protection mechanism.

#### KEY FEATURES

- Industry standard interfaces:
  - I<sup>2</sup>C: 1MHz from 1.8 to 5.5V
  - ISO/IEC 15693 NFC Forum Type V
- 13.56 MHz carrier frequency
- 4-, 16- and 64-Kbit user EEPROM
- 256 Bytes Fast Transfer Mode buffer
- 64-bit unique identifier
- 64-bit password protection
- Energy harvesting
- Configurable Output signal (GPO)
  - RF Field detect
  - Several RF interrupts
- Low-power mode

#### KEY BENEFITS

- Quick firmware upgrade via Fast Transfer Mode
- Enables battery less designs
- Long Range applications
- High-reliability EEPROM

- Flexible password protection scheme
- Simple and cost-effective
- New functions and capabilities for device calibration, product activation

#### MAIN APPLICATIONS

- Industrial equipment
- Maintenance, repair and operations (MRO)
- Medical equipment
- Consumer electronics
- Electronic Shelf Label (ESL)
- Asset tracking
- Traceability information management
- Logistics



## DEVICE SUMMARY

Part number	RF interface	Serial interface	Memory size	Clock frequency (MHz)	Data protection	Supply (V)	Package	Energy Harvesting output	RF status output (GPO)
ST25DV04K	ISO 15693 NFC Forum type V	I <sup>2</sup> C	4-Kbit	1	64-bit password	1.8 to 5.5	S08, TSSOP8, WLCSP, FPN8, FPN12, wafer	Yes	Yes
ST25DV16K	ISO 15693 NFC Forum type V	I <sup>2</sup> C	16-Kbit	1	64-bit password	1.8 to 5.5	S08, TSSOP8, FPN12	Yes	Yes
ST25DV64K	ISO 15693 NFC Forum type V	I <sup>2</sup> C	64-Kbit	1	64-bit password	1.8 to 5.5	S08, TSSOP8, FPN12	Yes	Yes

## ECO-SYSTEM



## TECHNICAL SUPPORT

The ST25DV-I2C family of dynamic NFC tags offers a simple and cost-effective implementation. ST can provide supporting material for integrating the antenna into your application: application notes, reference designs, antenna computation tools, e-presentations and e-learning. For more information, visit [www.st.com/st25dv-i2c](http://www.st.com/st25dv-i2c)

