

ST25DV-I2C SERIES

Dynamic NFC tags ISO 15693 NFC Forum Type V



ISO 15693 NFC Forum Type V Dynamic NFC Tag with I²C interface, Fast Transfer Mode and energy harvesting

ST25DV-I2C is the new member of the ST25 family. It is a futureproof dynamic tag compliant with NFC Forum Tag Type V and ISO 15693 standards, which offer a wide range of new features and capabilities. The high-reliability EEPROM memory bank can be accessed either by a low-power I²C interface or by an RF interface. An additional 256-Byte Fast Transfer Mode buffer allows a rapid data transfer between the RF and I²C part. It also features an energy harvesting, a RF status functions and 64-bit passwords for data protection.

KEY FEATURES

- ISO 15693 NFC Forum Type V
- 13.56MHz carrier frequency
- I²C: 1MHz from 1.8 to 5.5V
- 4-, 16- and 64-Kbit user EEPROM
- 256-Byte Fast Transfer Mode buffer
- 64-bit unique identifier
- 64-bit passwords protection
- Energy harvesting
- Configurable Output signal (GPO)
 - RF Field detect
 - Several RF interrupts
- Low-power mode
- Industrial temperature range grade 8 (up to 125°C)
- EEPROM endurance of 1M write cycles
- EEPROM data retention of 40 years

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

- Lighting
- Industrial and Medical equipment
- Maintenance, Repair and Operations
- Consumer electronics
- Electronic Shelf Label (ESL)
- Asset tracking, Logistics
- Metering

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 ² C | 4-Kbit | 1 | 64-bit passwords | 1.8 to 5.5 | S08, TSSOP8, WLCSP, FPN8, FPN12, wafer | Yes | Yes |
| ST25DV16K | ISO 15693 NFC Forum Type V | I ² C | 16-Kbit | 1 | 64-bit passwords | 1.8 to 5.5 | S08, TSSOP8, FPN12 | Yes | Yes |
| ST25DV64K | ISO 15693 NFC Forum Type V | I ² C | 64-Kbit | 1 | 64-bit passwords | 1.8 to 5.5 | S08, TSSOP8, FPN12 | Yes | Yes |

Eco-system



Support eco-system



e2e
community



PC SW tools



MCU drivers
(FW)



Documentation



Evaluation
board



ST25 NFC Tap app



Antenna Design Suite



iOS NFC Tap app

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



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