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
- PC: 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

www.st.com/st25dv-i2c
ST25DV-I2C SERIES | DYNAMIC NFC TAGS ISO 15693 NFC FORUM TYPE V

Device summary

<table>
<thead>
<tr>
<th>Part number</th>
<th>RF interface</th>
<th>Serial interface</th>
<th>Memory size</th>
<th>Clock frequency (MHz)</th>
<th>Data protection</th>
<th>Supply (V)</th>
<th>Package</th>
<th>Energy Harvesting output</th>
<th>RF status output (GPO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST25DV04K</td>
<td>ISO 15693 NFC Forum Type V</td>
<td>PC</td>
<td>4-Kbit</td>
<td>1</td>
<td>64-bit passwords</td>
<td>1.8 to 5.5</td>
<td>SO8, TSSOP8, WLCSP, FPN8, FPN12, wafer</td>
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<td>Yes</td>
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<tr>
<td>ST25DV16K</td>
<td>ISO 15693 NFC Forum Type V</td>
<td>PC</td>
<td>16-Kbit</td>
<td>1</td>
<td>64-bit passwords</td>
<td>1.8 to 5.5</td>
<td>SO8, TSSOP8, FPN12</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>ST25DV64K</td>
<td>ISO 15693 NFC Forum Type V</td>
<td>PC</td>
<td>64-Kbit</td>
<td>1</td>
<td>64-bit passwords</td>
<td>1.8 to 5.5</td>
<td>SO8, TSSOP8, FPN12</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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