ST25TV SERIES

NFC Tags for Consumer Engagement and Tracking

NFC forum certified Tag Type 5, with ISO15693 RF interface, TruST25 Digital Signature, Tamper Detect and privacy features

ST’s ST25TV ICs provide NFC forum tags that enable consumer to experience a digital life. The embedded EEPROM memory density spans from 512 bits to 64 Kbits, covering a wide spectrum of applications including Brand protection and Access control.

The ST25TV series delivers state-of-the-art RF performance together with strong protections such as block lock mechanism and encrypted passwords.

KEY FEATURES
• ISO/IEC 15693
• 512-bit, 2-Kbit, 4-Kbit, 16-Kbit and 64-Kbit EEPROM with write protect
• 64-bit unique identifier
• 16-bit counter with anti-tearing
• 23.5pF, 28.5pF or 99pF tuning capacitance
• Up to 60 years data retention
• Up to 1Mu erase cycles
• Kill / Untraceable mode
• TruST25 Digital signature
• Tamper detect

KEY BENEFITS
• Wide memory density options
• High-reliability EEPROM
• Anti-collision mechanism
• Read or Write operations
• Tamper detect indicator
• Privacy Protection
• Antenna Class 1 to Class 6 support

KEY APPLICATIONS
• Consumer engagement
• Brand protection
• Access control
• Asset Tracking
• Identification
• Gaming
• Parameter setting

www.st.com/st25t
Device Summary

<table>
<thead>
<tr>
<th>Part number</th>
<th>RF interface</th>
<th>NFC Forum certification</th>
<th>Memory size</th>
<th>Data protection</th>
<th>Counter</th>
<th>Special Features</th>
<th>Package</th>
<th>RF Status output</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST25TV512</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>512 bits</td>
<td>32 / 64 bits encrypted password</td>
<td>16 bits</td>
<td>TruST25 Digital signature</td>
<td>UFDFPN5, SBN075 and SBN12 (*)</td>
<td>No</td>
</tr>
<tr>
<td>ST25TV02K</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>2 Kbits</td>
<td>32 / 64 bits encrypted password</td>
<td>16 bits</td>
<td>TruST25 Digital signature</td>
<td>UFDFPN5, SBN075 and SBN12 (*)</td>
<td>No</td>
</tr>
<tr>
<td>ST25TV02K-AD</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>2 Kbits</td>
<td>32 / 64 bits encrypted password</td>
<td>16 bits</td>
<td>Tamper detect pin / TruST25 Digital signature</td>
<td>UFDFPN5, SBN075 and SBN12 (*)</td>
<td>No</td>
</tr>
<tr>
<td>ST25TV04K</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>4 Kbits</td>
<td>64 bits password</td>
<td>No</td>
<td>Energy Harvesting</td>
<td>SBN12 (*)</td>
<td>Yes (CMOS positive GPO)</td>
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<tr>
<td>ST25TV16K</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>16 Kbits</td>
<td>64 bits password</td>
<td>No</td>
<td>No</td>
<td>SBN12 (*)</td>
<td>No</td>
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<tr>
<td>ST25TV64K</td>
<td>ISO15693 / NFC Forum Type 5</td>
<td>Yes</td>
<td>64 Kbits</td>
<td>64 bits password</td>
<td>No</td>
<td>No</td>
<td>SBN12 (*)</td>
<td>No</td>
</tr>
</tbody>
</table>

(*) SBN075: Sawn and bumped wafer (die form), 75 μm thickness; SBN12: Sawn and bumped wafer (die form), 120 μm thickness

Reference design kit

![Reference design kit image]

ST25TV Series Eco-System

Support eco-system

- e2e community
- PC SW tools
- ST25 NFC Tap app
- Documentation
- Antenna Design Suite

Technical support

The ST25 NFC/RFID Tags family 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. Visit www.st.com/st25tv