ST25TA series
NFC/RFID tags

ST25TA ICs provide the NFC Forum Type 4 Tag RF interface and built-in NDEF (NFC Data Exchange Format) message support. The ST25TA series delivers state-of-the-art RF performance and features a user-programmable digital CMOS (or Open Drain) output that eliminates the need for an external component to trigger the host wake-up.

**KEY FEATURES**
- ISO/IEC 14443 Type A
- NFC Forum Type 4 Tag
- 13.56 MHz carrier frequency
- 512-bit, 2-Kbit, 16-Kbit and 64-Kbit densities
- 56-bit unique identifier
- 128-bit password protection
- Optional 20-bit counter
- Optional RF status digital output
- 5- and 8-lead UFDFPN packages
- Bumped wafer die form packages
- 25 or 50pF tuning capacitance
- 200 years data retention
- 1 million write erase cycles
- TruST25 digital signature

**KEY BENEFITS**
- Wide memory density options
- High-reliability EEPROM
- Built-in NDEF format support
- Strong password protection scheme
- Read or Write operations counter
- Flexible user-programmable GPO

**KEY APPLICATIONS**
- Smart posters
- NFC business cards
- Consumer electronics
- Wireless handover
- Gaming
- Industrial
- Traceability
- Wearable electronics
- Computer peripherals
**DEVICE SUMMARY**

<table>
<thead>
<tr>
<th>Part number</th>
<th>RF interface</th>
<th>Memory size</th>
<th>Data protection (128 bit password)</th>
<th>20 bit Counter</th>
<th>Package</th>
<th>RF status output</th>
<th>Trust25 digital signature</th>
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<tbody>
<tr>
<td>ST25TA512B</td>
<td>ISO 14443A Type A</td>
<td>512 bit</td>
<td>Yes</td>
<td>Yes</td>
<td>SBN12 *</td>
<td>No</td>
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<tr>
<td>ST25TA02KB</td>
<td>ISO 14443A Type A</td>
<td>2 Kbit</td>
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<td>ST25TA02KB-D</td>
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<td>UFDFPN5 and 8, SBN12 *</td>
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<td>Yes</td>
<td>UFDFPN5 and 8, SBN12 *</td>
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<td>SBN12 *</td>
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</tbody>
</table>

* SBN12: Sawn and Bumped wafer (die form), 120µm thickness

**REFERENCE DESIGN KITS**

The CLOUD-ST25TA02KB is a ready-to-use demo board intended to evaluate the ST25TA02KB-P (order code: CLOUD-ST25TA)

**ECO-SYSTEM**

Datasheet, user manual & application note

NFC Android App

Google play

e2e community

PC SW tools (CR95HF)

Support eco-system

Schematics, BOM & Gerber

Antenna Design Suite

Evaluation board

**TECHNICAL SUPPORT**

The 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/nfc-rfid](http://www.st.com/nfc-rfid)