ST25TB series
Ticketing and RFID tags

RFID tags with ISO14443-B RF interface, large and unique counting capability with anti-tearing feature and anti-collision mechanism

ST’s ST25TB ICs provide RFID short range tags that enable transport passengers with fluid access to transportation. The embedded EEPROM memory density spans from 512 bit to 4 Kbit, covering a wide spectrum of applications including Brand protection and identification. The ST25TB series delivers state-of-the-art RF performance and offers a counter feature able to trig more than 4 billion of events.

KEY FEATURES
- ISO14443-2 Type B with Proprietary Protocol
- 13.56 MHz carrier frequency
- 512-bit, 2-K, and 4-K EEPROM with write protect
- 64-bit unique identifier
- 2 * 32-bit counters
- Resettable OTP
- 120um Bumped wafer
- 68pF tuning capacitance
- 40 years data retention
- 1 million write erase cycles

KEY BENEFITS
- Wide memory density options
- High-reliability EEPROM
- Large and unique counting capability with anti-tearing feature
- Anti-collision mechanism
- Read or Write operations counter
- Dedicated version for Mass transit
- Antenna Class 1 to Class 6 support

KEY APPLICATIONS
- Public transportation
- Event ticketing
- Asset Tracking
- Brand protection
- Identification
- Maintenance, repair and operations

www.st.com/st25tb
## DEVICE SUMMARY

<table>
<thead>
<tr>
<th>Part number</th>
<th>RF interface</th>
<th>Memory size</th>
<th>Data protection</th>
<th>32 bit counter</th>
<th>Package</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST25TB512-AT6G6</td>
<td>ISO 14443B proprietary</td>
<td>512 bit</td>
<td>Yes</td>
<td>Yes</td>
<td>SBN12(*)</td>
<td>Dedicated for ticketing</td>
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<tr>
<td>ST25TB512-AC6G6</td>
<td>ISO 14443B proprietary</td>
<td>512 bit</td>
<td>Yes</td>
<td>Yes</td>
<td>SBN12(*)</td>
<td></td>
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<td>ST25TB02K-AC6G6</td>
<td>ISO 14443B proprietary</td>
<td>2 Kbit</td>
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<tr>
<td>ST25TB04K-AC6G6</td>
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<td>4 Kbit</td>
<td>Yes</td>
<td>Yes</td>
<td>SBN12(*)</td>
<td></td>
</tr>
</tbody>
</table>

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

## ECO-SYSTEM

- Datasheet, user manual & application note
- e2e community
- Antenna Design Suite
- Support eco-system

## TECHNICAL SUPPORT

The ST25TB 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.