

# 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 bits and 4 Kbits, 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-Kbit and 4-Kbit EEPROM with write protect
- 64-bit unique identifier
- 2 \* 32-bit counters
- Resettable OTP
- 68pF tuning capacitance
- 40 years data retention
- 1 million write erase cycles
- 120 µm and 75 µm sawn and bumped wafer

#### 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

## Device Summary

| Part number  | RF interface           | Memory size | Data protection | 32 bit counter | Package              | Comment                 |
|--------------|------------------------|-------------|-----------------|----------------|----------------------|-------------------------|
| ST25TB512-AT | ISO 14443B proprietary | 512 bits    | Yes             | Yes            | SBN12 and SBN075 (*) | Dedicated for Transport |
| ST25TB512-AC | ISO 14443B proprietary | 512 bits    | Yes             | Yes            | SBN12(*)             |                         |
| ST25TB02K-AC | ISO 14443B proprietary | 2 Kbits     | Yes             | Yes            | SBN12(*)             |                         |
| ST25TB04K-AC | ISO 14443B proprietary | 4 Kbits     | Yes             | Yes            | SBN12(*)             |                         |

(\*) SBN12: Sawn and Bumped inkless wafer (die form), 120 µm thickness  
 SBN075: Sawn and Bumped inkless wafer (die form), 75 µm thickness

## ST25TB Series Eco-System



### 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. Visit [www.st.com/st25tb](http://www.st.com/st25tb)



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