

ST25TA series NFC/RFID tags



NFC/RFID tags with ISO/IEC 14443 Type A RF interface, NDEF memory and 128-bit password protection

ST's ST25TA ICs provide the NFC Forum Type 4 Tag RF interface and built-in NDEF (NFC Data Exchange Format) message support. The embedded EEPROM memory density spans from 512 bits to 64 Kbits, covering a wide spectrum of applications including content-rich virtual business cards and smart signs. 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

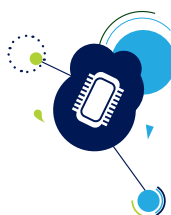
- ISO/IEC 14443 Type A
- NFC Forum Type 4 Tag
- 13.56 MHz carrier frequency
- 512-bit, 2-Kbit, 16-Kbit and 64-Kbit densities
- 56-bit unique identifier
- 128-bit password protection
- Optional 20-bit counter
- Optional RF status digital output
- 5- and 8-lead UDFPN packages
- Bumped wafer die form packages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

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

Part number	RF interface	Memory size	Data protection (128 bit password)	20 bit Counter	Package	RF status output
ST25TA512	ISO 14443A Type A	512 bit	Yes	Yes	SBN12 *	No
ST25TA02K	ISO 14443A Type A	2 Kbit	Yes	Yes	SBN12 *	No
ST25TA02K-P	ISO 14443A Type A	2 Kbit	Yes	Yes	UFDFPN5 and 8, SBN12 *	Yes (CMOS positive GPO)
ST25TA02K-D	ISO 14443A Type A	2 Kbit	Yes	Yes	UFDFPN5 and 8, SBN12 *	Yes (Open Drain GPO)
ST25TA16K	ISO 14443A Type A	16 Kbit	Yes	No	SBN12 *	No
ST25TA64K	ISO 14443A Type A	64 Kbit	Yes	No	SBN12 *	No

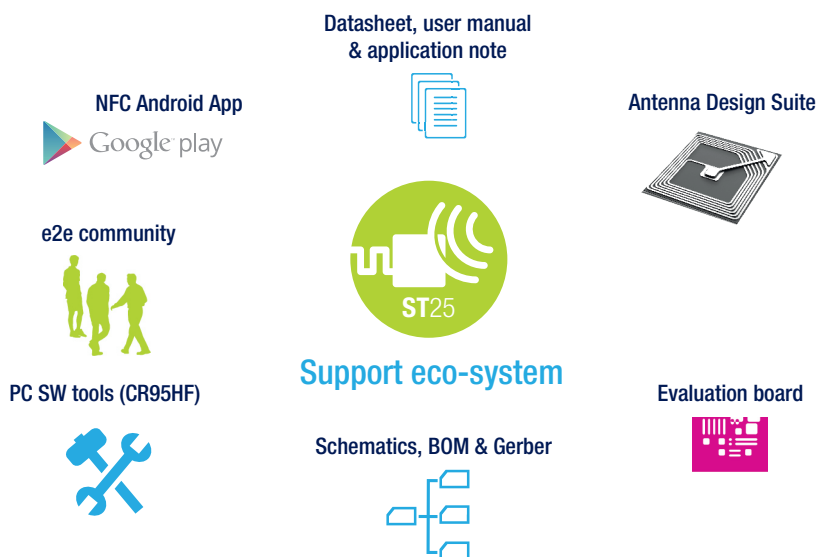
* SBN12: Sawn and Bumped wafer (die form), 120µm thickness

REFERENCE DESIGN KITS

The CLOUD-ST25TA is a ready-to-use demo board intended to evaluate the ST25TA02K-P (order code: CLOUD-ST25TA)



ECO-SYSTEM



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