

Contactless memory solutions

Tags and RFID



Leading-edge worldwide standard compliant products

Committed to the high volume/low cost market, **STMicroelectronics** is a leader in serial non-volatile memories and ASMs (Application Specific Memories). ST's approach in the identification market consists in offering low-cost standard-compliant memories and complete solutions through a wide network of partners. ST is strongly behind the adoption of Worldwide RFID standards such as ISO 14443 type B, ISO 15693, ISO 18000 and AutoID.

Ready for multiple applications

ST offers a new, broad range of contactless memory products with an RF interface, ideal for tags, RFID and contactless access cards used in a wide variety of applications:

- Mass transit
- Access control
- Identification
- Object tracking
- E-Purse
- Healthcare
- Loyalty
- Anti-counterfeiting

To meet today's environmental requirements, ST's contactless memories offer a wide choice of packaging solutions.

Know-how and expertise

With considerable experience in the contactless domain, as well as partnerships with system integrators and involvement in standardization committees, ST can offer a cost-efficient, flexible and interoperable contactless identification product portfolio.

Contactless memory solutions

Short-range

Short-range products common features

- ISO 14443-2 type B fully compliant
- ISO 14443-3 type B frame format compliant
- 13.56MHz carrier frequency, 847kHz subcarrier and 106 Kbit/s data transfer rate
- ASK data modulation for reader-to-card and BPSK coding for card-to-reader
- Internal tuning capacitor

■ SR176

- 176 bits of user EEPROM with programmable write protection
- 64-bit unique ID
- Chip ID select capability

■ SRIX4K

- 4 Kbits of user EEPROM with write protection
 - 5 one-time programmable blocks
 - 2 binary counters
- 64-bit unique ID
- France Telecom proprietary anti-clone function
- Anti-collision

■ SRIX512

- 512 bits of user EEPROM with write protection
 - 5 one-time programmable blocks
 - 2 binary counters
- 64-bit unique ID
- France Telecom proprietary anti-clone function
- Anti-collision

Short-range coupler

■ CRX14

- Integrated chip coupler for ISO14443-B protocol
- Single 4.5 to 5.5V operation
- 400kHz I²C bus
- Up to 8 x I²C addresses using chip enable pads
- 13.56MHz carrier frequency
- France Telecom proprietary anti-clone function

Long-range

Long-range products common features

- ISO 15693 standard compliant
- 13.56MHz carrier frequency
- ASK data modulation for reader-to-card and Manchester coding for card-to-reader
- Internal tuning capacitor

■ LRI64

- 64-bit unique ID (user programmable capability)
- 64-bit user write once, read many
- Anti-collision

■ LRI512

- 512 bits of user EEPROM with block lock
- 64-bit unique ID
- EAS (electrical article surveillance)
- Anti-collision

Part number	Memory size	Unique ID	Anti-collision	Anti-clone	Package*
ISO 14443 type B short-range/proximity					
SR176	176b EEPROM	●			Inlays, modules, wafers
SRIX512	512b EEPROM	●	●	●	Inlays, modules, wafers
SRIX4K	4Kb EEPROM	●	●	●	Inlays, modules, wafers
ISO 15693 long-range/vicinity					
LRI64	64b WORM	●	●		Inlays, modules, wafers
LRI512	512b EEPROM	●	●		Inlays, modules, wafers
ISO 14443 type B short-range coupler					
CRX14				●	S016N

*For specific packaging solutions, please contact us at: contactless.memories@st.com



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Full product information at www.st.com