

M24SR series

Dynamic NFC/RFID tags

NFC forum type 4 & I²C EEPROM



Dynamic NFC/RFID tags with I²C and 13.56 MHz ISO14443 RF interfaces with RF status and RF disable

ST's innovative family of Dynamic NFC/RFID tags which is part of ST25 product family provides new features and capabilities. The EEPROM memory bank can be accessed either by a low-power I²C interface or by an ISO 14443 RF interface operating at 13.56 MHz. It also features RF status and RF disable functions. In addition, the family features a 128-bit password data protection mechanism.



KEY FEATURES

- Industry-standard interfaces:
 - I²C: 1 MHz, from 2.7 to 5.5 V
 - ISO 14443: 106 Kbit/s data rate, up to 10 cm remote access range
- 2-Kbit, 4-Kbit, 16-Kbit and 64-Kbit EEPROM user memory
- 64-bit unique identifier
- 128-bit password protection
- 13.56 MHz carrier frequency
- RF status digital output
- RF disable input

TWO WORLDS CONNECTED

The ability to program or read a memory using either an RF or a wired interface offers new functions and capabilities for your products.

Potential applications include:

- Consumer electronics
- Medical equipment
- Industrial equipment
- Metering
- Computers and peripherals

KEY BENEFITS

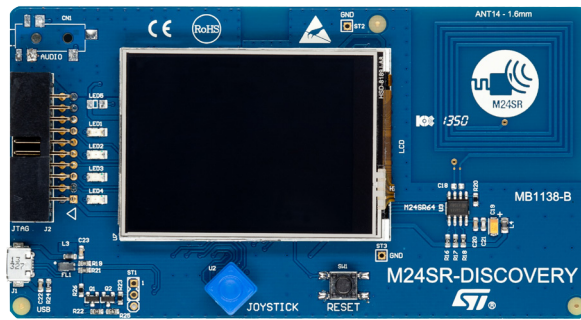
- Most flexible solution for parameter and firmware updates
- High-reliability EEPROM
- Flexible password protection scheme
- Simple and cost effective
- New functions and capabilities for device calibration, product activation, traceability information management, asset tracking and identification

DEVICE SUMMARY

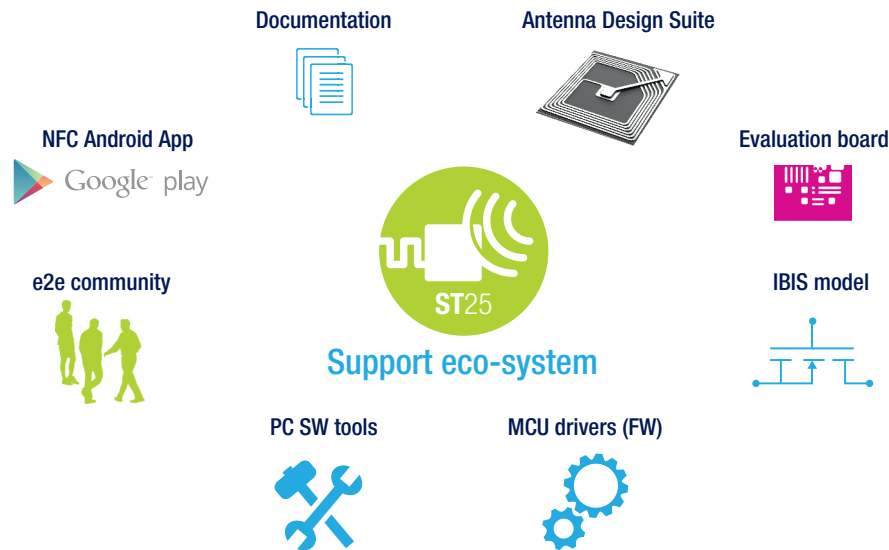
Part number	RF interface	Serial interface	Memory size	Clock frequency	Data protection (password)	Package	RF status output	RF disable input
M24SR02-Y	ISO 14443	I ² C	2 Kbit	1 MHz	128 bit	S08, TSSOP8, UFDFPN 8	Yes	Yes
M24SR04-Y	ISO 14443	I ² C	4 Kbit	1 MHz	128 bit	S08, TSSOP8, UFDFPN 8	Yes	Yes
M24SR16-Y	ISO 14443	I ² C	16 Kbit	1 MHz	128 bit	S08, TSSOP8, UFDFPN 8	Yes	Yes
M24SR64-Y	ISO 14443	I ² C	64 Kbit	1 MHz	128 bit	S08, TSSOP8, UFDFPN 8	Yes	Yes

REFERENCE DESIGN KITS

- NFC/RFID tag, STM32F1 MCU, color display, Bluetooth/audio module and audio headset (order code: M24SR-DISCO-PREM)
- Dynamic NFC tag expansion shield based on M24SR for STM32 Nucleo (order code: X-NUCLEO-NFC01A1)



M24SR DISCOVERY KIT AND M24SR MATRIX PICTURES



TECHNICAL SUPPORT

ST's dynamic NFC/RFID tag family offers a simple and cost-effective implementation. ST can provide supporting material for integrating the antenna in your application: application notes, reference designs, antenna computation tools, e-presentations and e-learning.

Visit www.st.com/nfc-rfid



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