M24SR SERIES

Dynamic NFC tags
ISO 14443-A NFC Forum Type 4

ST’s innovative family of Dynamic NFC 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/NFC Forum Type 4 RF interface. It also features RF status and RF disable functions. In addition, the family features a 128-bit password data protection mechanism.

KEY FEATURES
- ISO 14443-A NFC Forum Type 4
- 13.56 MHz carrier frequency
- I²C: 1MHz from 2.7 to 5.5 V
- 2-, 4-, 16- and 64-Kbit user EEPROM
- 64-bit unique identifier
- 128-bit password protection
- 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.

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

MAIN APPLICATIONS
- Consumer electronics
- Medical equipment
- Industrial equipment
- Healthcare/Wellness
- Computers and peripherals

www.st.com/m24sr
Device summary

<table>
<thead>
<tr>
<th>Part number</th>
<th>RF interface</th>
<th>Serial interface</th>
<th>Memory size</th>
<th>Clock frequency</th>
<th>Data protection (password)</th>
<th>Package</th>
<th>RF status output</th>
<th>RF disable input</th>
</tr>
</thead>
<tbody>
<tr>
<td>M24SR02-Y</td>
<td>ISO 14443</td>
<td>I2C</td>
<td>2-Kbit</td>
<td>1 MHz</td>
<td>128 bits</td>
<td>SO8, TSSOP8, UFDFPN 8</td>
<td>Yes</td>
<td>Yes</td>
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<td>ISO 14443</td>
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<td>4-Kbit</td>
<td>1 MHz</td>
<td>128 bits</td>
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<td>Yes</td>
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<tr>
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<td>Yes</td>
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</tr>
</tbody>
</table>

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)

Support eco-system

- e2e community
- PC SW tools
- MCU drivers (FW)
- Documentation
- Evaluation board

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/st25

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