The ST25R3911B/12 reader series from ST are a market leading range of high performance HF & NFC reader solutions. Providing multiple unique features such as Automatic Antenna Tuning (AAT), capacitive wakeup and with a Dynamic Power Output they are ideal for the most challenging of applications. Additionally the unique features simplify the design process, optimizing time to market and BOM overhead, meaning the product range offer solutions for cost sensitive applications such as Gaming, Access Control and Metering.

**KEY FEATURES**
- Reader/Writer, P2P
- Full compliancy to all relevant NFC standards
- EMD handling for system robustness enhancement and faster design
- Supports VHBR (3.4 Mbit/s PICC to PCD framing, 6.8 Mbit/s AFE and PCD to PICC framing)
- Automatic Antenna Tuning (AAT)
- Dynamic Power Output (DPO)
- Capacitive & Inductive Wake-Up (CIWU) for power saving

**KEY BENEFITS**
- Industry leading RF performance
- Full interoperability with NFC devices
- Highest transfer speed for eGovernment without additional external BOM
- Prolonged battery life thanks to low power card detection
- Development kits with full integration into the STM32 environment
- RFAL software library for EMVCo L1 and NFC Forum compliance
- Fast time to market thanks to unique features

www.st.com/st25r
Device summary

<table>
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<tr>
<th>Part number</th>
<th>Mode</th>
<th>RF interface</th>
<th>RF speed</th>
<th>Serial interface</th>
<th>Advanced features</th>
<th>Output power</th>
<th>Junction Temperature Range</th>
<th>Package</th>
<th>Applications</th>
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<td>ST25R3911B</td>
<td>Reader / Writer, P2P</td>
<td>ISO14443A/B ISO15693</td>
<td>6.8Mbps (VHBR)</td>
<td>SPI</td>
<td>AAT, DP0, Inductive &amp; Capacitive wake-up</td>
<td>1.4W</td>
<td>-40°C to +125°C</td>
<td>32-pin QFN (5x5 mm)</td>
<td>Point of Sales (EMVCo 2.x),</td>
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<td>FeliCa</td>
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<td>Passport, Access control</td>
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<td>ST25R3912</td>
<td>Reader / Writer, P2P</td>
<td>ISO14443A/B ISO15693</td>
<td>848kbps SPI</td>
<td></td>
<td>DP0, Inductive wake-up</td>
<td>1.0W</td>
<td>-40°C to +125°C</td>
<td>32-pin QFN (5x5 mm), WLCSP</td>
<td>Point of Sales (EMVCo 2.x),</td>
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<td>Access control, Reader &amp; Tag</td>
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<td>Consumer Gaming</td>
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</tbody>
</table>

Reference design kits

Eco-system

Support eco-system

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

Technical support

The ST25R reader 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/st25r