ST25R3916
High-performance NFC Universal Device & EMVCo Reader

Setting a new performance standard for NFC/HF readers

The ST25R3916 reader is a market leading high performance NFC/RFID HF reader solution offering unique features enhancing robustness and increasing performance.

This allows operating the ST25R3916 in noisy environment without sacrificing performance. Additionally the ST25R3916 helps passing required certifications easier and faster than ever before. This allows minimizing the time required from the first concept until mass production of a product.

ST25R3916 is fully compliant with ISO14443A/B, ISO15693, ISO18092, FeliCa and NFC Forum standards.

Development kits based on STM32L4.

**KEY FEATURES**
- Reader/Writer, P2P & Card Emulation modes
- Full compliancy to all relevant NFC standards
- Automatic EMD handling for system robustness enhancement and faster design
- Active Wave Shaping (AWS) to smoothen over & undershoot passing NFC / EMVCo requirements easier
- Noise Suppression Receiver (NSR) allowing operation in noisy environment e.g. caused by lower cost LCD
- Automatic Antenna Tuning (ATT)
- Dynamic Power Output (DPO)
- Capacitive & Inductive Wake-Up (CIWU) for power saving

**KEY BENEFITS**
- Industry leading RF performance
- Full interoperability with NFC devices
- More freedom on LCD display choice close to the antenna
- 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**

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<th>Part number</th>
<th>Mode</th>
<th>RF interface</th>
<th>Serial interface</th>
<th>Advanced features</th>
<th>Output power</th>
<th>Temperature range (Tj)</th>
<th>Package</th>
<th>Applications</th>
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<tbody>
<tr>
<td>ST25R3916</td>
<td>Reader / Writer, P2P, Card Emulation</td>
<td>ISO14443A/B, ISO15693, FeliCa</td>
<td>SPI, PC</td>
<td>AAT, DPO, AWS, NSR, CIWU</td>
<td>1.6W</td>
<td>-40°C to +125°C</td>
<td>32-pin QFN (5x5 mm)</td>
<td>Point of Sales (EMVco), Access Control, Gaming, IOT, Product configuration, Authentication, Traceability, Logistics, Industrial</td>
</tr>
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</table>

**REFERENCE DESIGN KITS**

**ECO-SYSTEM**

**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