95HF series
NFC/RFID readers and transceivers

NFC/RFID integrated reader and transceiver ICs for contactless applications

ST’s 95HF series provides multi-protocol support for 13.56 MHz NFC/RFID communications and is part of ST25 product family. The 95HF portfolio offers flexible solutions for NFC/RFID, proximity and vicinity applications. Thanks to Reader/Writer and Card Emulation modes, 95HF series allow a wide spectrum of applications including identification, authentication, product configuration, access control, door locks, industrial tag readers, and dynamic data exchanges between 2 NFC devices. With a RAM buffer up to 528 bytes, these devices ensure fast data transfers up to 848 kbit/s.

KEY FEATURES
- ISO/IEC 14443 Type A
- ISO/IEC 14443 Type B
- ISO/IEC 15693
- ISO/IEC 18092
- 13.56 MHz carrier frequency
- RAM buffer up to 528 bytes
- Card Emulation mode
- Reader/Writer mode
- 32 lead, 5x5 mm, VFQFPN 32 package

KEY BENEFITS
- Large RAM buffer for fast data transfers
- Low-power mode
- Simple implementation
- Limited BOM
- Development eco-system kits

KEY APPLICATIONS
- Dynamic data exchange between NFC devices
- Product authentication and configuration
- Access-control devices
- Digital door locks
- Tag reader equipment for medical, industrial and commercial.

www.st.com/nfc-rfid
### DEVICE SUMMARY

<table>
<thead>
<tr>
<th>Part number</th>
<th>General description</th>
<th>NFC interface</th>
<th>RF interface</th>
<th>Serial interface</th>
<th>Buffer size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX95HF</td>
<td>NFC receiver IC</td>
<td>Card Emulation</td>
<td>ISO/IEC 14443 Type A ISO/IEC 18092</td>
<td>SPI</td>
<td>256 bytes</td>
<td>VFQFPN 32</td>
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<tr>
<td>CR95HF</td>
<td>NFC reader IC</td>
<td>Reader/Writer</td>
<td>ISO/IEC 14443 Type A and B ISO/IEC 15693 ISO/IEC 18092</td>
<td>SPI / UART</td>
<td>528 bytes</td>
<td>VFQFPN 32</td>
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<tr>
<td>ST95HF</td>
<td>NFC transceiver IC</td>
<td>Reader/Writer</td>
<td>ISO/IEC 14443 Type A and B ISO/IEC 15693 ISO/IEC 18092</td>
<td>SPI</td>
<td>528 bytes</td>
<td>VFQFPN 32</td>
</tr>
</tbody>
</table>

* NFC: Near Field Communication

### REFERENCE DESIGN KITS

- For evaluating the ST95HF transceiver solution: ST95HF evaluation board (order code: EVAL-ST95HF)

- For evaluating the CR95HF reader solution: M24LR Discovery kit with RF transceiver board (order code: M24LR-DISCOVERY)

### ECO-SYSTEM

- Documentation
- Antenna Design Suite
- NFC Android App
- e2e community
- Support eco-system
- Evaluation board
- Schematics, BOM & Gerber & picto
- PC SW tools
- MCU drivers (FW)

### TECHNICAL SUPPORT

The NFC/RFID readers and transceivers offer 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 documentation.

For more information, visit [www.st.com/nfc-rfid](http://www.st.com/nfc-rfid)