ST25R3911B/3912

High performance NFC readers

High performance NFC reader Device with 1.4 W supporting VHBR and AAT for contactless applications

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

Device summary

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

Reference design kits

X-NUCLEO-NFC05A1

ST25R3911B-DISCO

ST25R3911B-EMVCO

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

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