ST25R series
High performance NFC/RFID readers

High performance HF reader / NFC initiator with 1.4 W supporting VHBR and AAT for contactless applications

The new ST25R 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. . The new ST25R family are part of ST's comprehensive range of NFC & RFID solutions.

FEATURES

- Automatic Antenna Tuning
- Dynamic Power Output, up to 1.4W
- ISO/IEC 14443 A / B
- ISO/IEC 15693
- ISO/IEC 18092 (NFCIP-1) initiator and target in active mode only
- FeliCa reader
- NFC Forum
- Reader/Writer and P2P modes
- VHBR 6.8Mbps
- Capacitive and Inductive wake-up
- 32-pin QFN (5x5 mm), WLCSP, Wafer

BENEFITS

- Assured reads in design challenged environments
- Reduced design complexity and cost
- Fastest time to market
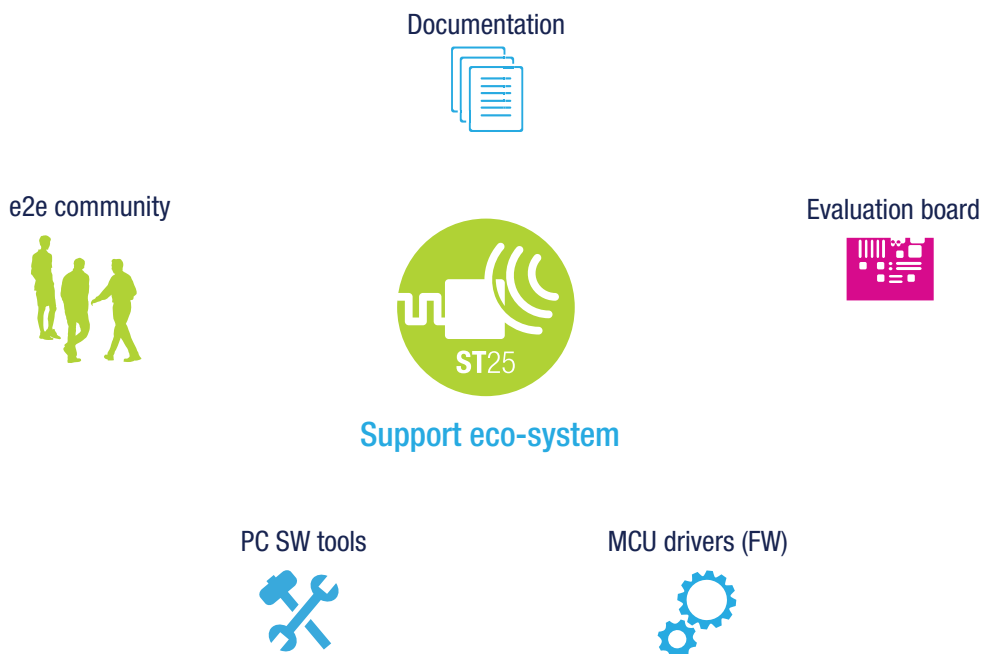- Optimal consumer experience

APPLICATIONS

- Point of Sales (payment terminals)
- Passport
- Access control, Door lock
- Automotive
- Consumer, Gaming
- Industry, Medical, Metering
- Product configuration

DEVICE SUMMARY

Part number	Mode	RF interface	RF speed	Serial interface	Advanced features	Output power	Temperature range	Package	Applications
ST25R3910	Reader / Writer	ISO14443A/B ISO15693 FeliCa	848kbps	SPI	AAT, Inductive wake-up	0.7W	-40°C to +85°C	32-pin QFN (5x5 mm), Wafer	Access control, Gaming, Metering
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), 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), Access control
ST25R3913	Reader / Writer, P2P	ISO14443A/B ISO15693 FeliCa	848kbps	SPI	AAT, DPO, Inductive wake-up	1.0W	-40°C to +125°C	32-pin QFN (5x5 mm)	Point of Sales (EMVco), Access control
ST25R3914	Reader / Writer, P2P	ISO14443A/B ISO15693 FeliCa	848kbps	SPI	AAT, DPO, Inductive & Capacitive wake-up,	1.0W	-40°C to +125°C	32-pin QFN (5x5 mm)	Automotive (AEC-Q100 Grade 1)
ST25R3915	Reader / Writer, P2P	ISO14443A/B ISO15693 FeliCa	848kbps	SPI	DPO, Inductive & Capacitive wake-up	1.0W	-40°C to +125°C	32-pin QFN (5x5 mm)	Automotive (AEC-Q100 Grade 1)

ECO-SYSTEM

Documentation

e2e community

Support eco-system

Evaluation board

PC SW tools

MCU drivers (FW)

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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