ST25R3916/17

High-performance NFC Universal Device & EMVCo Reader

Setting a new performance standard for NFC/HF readers

The ST25R3916/17 reader is a market leading high performance NFC/RFID HF reader solution offering unique features enhancing robustness and increasing performance. This allows operating the ST25R3916/17 in noisy environment without sacrificing performance.

Additionally the ST25R3916/17 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. ST25R3916/17 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 (AAT) with variables capacitors
- 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

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Device summary

Part number	Mode	RF interface	Serial interface	Advanced features	Output power	Ambient Temperature Range	Package	Applications
ST25R3916	Reader / Writer, P2P, Card Emulation	ISO14443A/B, ISO15693, FeliCa	SPI, I²C	AAT, DPO, AWS, NSR, CIWU	1.6W	-40°C to +105°C	32-pin QFN (5x5 mm)	Point of Sales (EMVco), Access Control, Gaming, IOT, Product configuration, Authentication, Traceability, Logistics, Industrial
ST25R3917	Reader / Writer	ISO14443A/B, ISO15693, FeliCa	SPI, I²C	DPO, AWS, NSR, IWU	1.6W	-40°C to +105°C	32-pin QFN (5x5 mm)	Point of Sales (EMVCo), Access Control, Gaming, Industrial, Logistic

Note :
ATT: Automatic Antenna Tuning
DPO: Dynamic Power Output
AWS: Active Wave Shaping

NSR: Noise Suppression Receiver
CIWU: Capacitive & Inductive Wake-Up
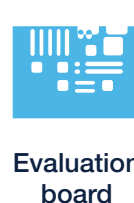IWU: Inductive Wake-Up

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

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