

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 compliance 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



DEVICE SUMMARY

Part number	Mode	RF interface	Serial interface	Advanced features	Output power	Temperature range (Tj _{un})	Package	Applications
ST25R3916	Reader / Writer, P2P, Card Emulation	ISO14443A/B, ISO15693, FeliCa	SPI, I ² C	AAT, DPO, AWS, NSR, CIWU	1.6W	-40°C to +125°C	32-pin QFN (5x5 mm)	Point of Sales (EMVco), Access Control, Gaming, IOT, Product configuration, Authentication, Traceability, Logistics, Industrial

Note :

ATT: Automatic Antenna Tuning

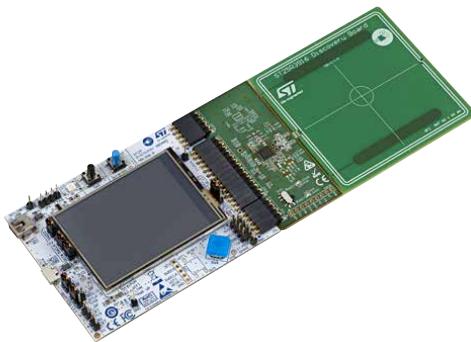
DPO: Dynamic Power Output

AWS: Active Wave Shaping

NSR: Noise Suppression Receiver

CIWU: Capacitive & Inductive Wake-Up

REFERENCE DESIGN KITS



ECO-SYSTEM

Documentation



e2e community



Evaluation board



Support eco-system

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/st25



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