ST25R100 & ST25R200

Multipurpose NFC readers for consumer & industrial

Compact, affordable NFC readers with high-end analog performance and advanced features

The ST25R100 and ST25R200 NFC readers offer high-end performance in a compact package. They provide a long-read range and an improved low-power card detection. These key features make them an ideal solution for battery-powered devices.

The ST25R200 comes with a superior set of features for medium to high-power applications, while the ST25R100 provides an entry-level option for cost sensitive applications. In combination with NFC tags, the readers allow wireless communication with consumables and accessories.

By implementing use cases such as the detection of connected accessories, the well-matched combination of the ST25R readers and ST25T tags helps create easy-to-use products, while taking the user experience to a new level.
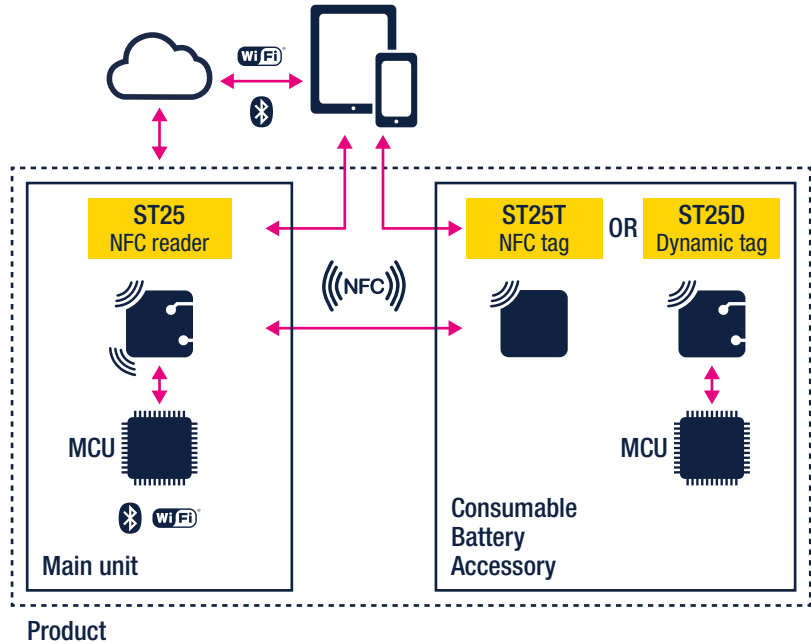
KEY FEATURE & BENEFITS

- High output power with dynamic power adjustment allowing small antenna sizes and seamless user experience
- Compact 4 x 4 mm package for small devices
- Improved low-power card detection (LPCD), increasing detection range in inductive wake-up mode
- Over/Undershoot protection (OSP) making smoothing of waveshapes easier
- Software libraries (free of charge) and prototyping evaluation kit enabling short time-to-market
- 10-year Longevity program for the ST25R200 makes it ideal for long lasting medical and industrial applications

KEY APPLICATIONS

- Access control
- Smart home
- Healthcare & wellness
- Toys

ST25 Reader+Tag

Easily combine the ST25R100 or ST25R200 reader with ST25 tags to unlock new use cases, including offline communication between devices (e.g., main unit and battery), or connect your product to the global network (e.g., enable communication with smart devices, or upload data to the cloud for enhanced functionality).

Find out more:
www.st.com/reader-plus-tag

A rich ecosystem

Ease your design process and shorten your time to market with ST's hardware and software ecosystem. The **X-NUCLEO-NFC09A1** enables you to test and evaluate the ST25R100. The new **STEVAL-25R200SA** and **X-NUCLEO-NFC10A1** boards provide a head-start on your design and minimize your development efforts with the ST25R200. The STEVAL-25R200SA kit enables immediate testing of various NFC antennas for a quick creation of mock-ups or prototypes. To simplify your application development, an implementation of the RF/NFC abstraction layer (RFAL) is available (**STSW-ST25RFAL004**). Combined with a sophisticated software library, it provides a common interface that makes the upper software layers independent from the ST25R device.

X-NUCLEO-NFC09A1

STEVAL-25R200SA KIT

X-NUCLEO-NFC10A1

Product summary

Part number	Mode	Interface	Serial Interface	Advanced features	Output Power	Ambient temp Range	Package
ST25R200	R&W	ISO 14443A/B, ISO 15693	SPI 10 Mbps	DPO[1], OSP[2], EMD[3], IWU[4], NSR[5]	1.2 W	-40 to +85°C	TQFN-24 (4 x 4 mm)
ST25R100	R&W	ISO 14443A/B, ISO 15693	SPI 6 Mbps	DPO, IWU	0.8 W	-25 to +85°C	TQFN-24 (4 x 4 mm)

Note 1) DPO: Dynamic Output Power   2) OSP: Overshoot Protection   3) EMD: Electro Magnetic Disturbance correction   4) IWU: Inductive Wake Up   5) NSR: Noise Suppression Receiver

Order code: FL2406ST25R200

For more information on ST products and solutions, visit www.st.com