


## Wireless NFC Product Portfolio

### NFC / RFID TAGS, DYNAMIC TAGS & READERS

ST offers a comprehensive portfolio of NFC/RFID products, which operate at 13.56 MHz and are based on NFC and ISO standards:

- ◆ NFC/RFID tags, ideal for wireless pairing (Bluetooth or Wi-Fi) and product identification, feature counters, data protection (password) and able to wake-up the Host chip thanks to a general-purpose output
- ◆  **ST25 NFC/RFID**  
Simply more connected
- ◆ Dynamic RFID / NFC tags, featuring a reliable EEPROM memory with data protection (password), an I2C interface to connect to a MCU and a RFID/NFC tag interface, enabling multiple use-cases for Consumer, Industrial and IoT applications
- ◆ NFC / HF RFID readers, which support multiple NFC protocols in Reader or Peer-to-Peer modes, accessed via SPI interface and able to cope with the most challenging environments thanks to their high RF performance and advanced features

ST also offers a large range of Discovery kits, Nucleo expansion boards, reference software and documentation in order to ease the design process.

### Key Features

- ◆ Best-in-class RF performance
- ◆ 13.56 MHz frequency
- ◆ Highly reliable EEPROM with data protection
- ◆ I2C/SPI serial interface PWM output / GPO
- ◆ Energy harvesting capabilities
- ◆ Tamper detection feature
- ◆ Automatic Antenna Tuning
- ◆ High and Dynamic Power Output
- ◆ EMVCo compliant
- ◆ AEC-Q100 grade 1

### Available Tools & Software:

- ◆ Development Tools
- ◆ Embedded Software
- ◆ Solution & Reference Designs
- ◆ Ecosystems
- ◆ Evaluation Tools
- ◆ Tag Bags



# NFC Portfolio

Tags		
ST25TA	ST25TB	ST25TV
ISO14443-A 106kb/s NFC type 4	ISO14443-B 106kb/s	ISO15693 up to 53kb/s NFC type 5
EEPROM 512b-64Kbit 200-year 1Mcycles	EEPROM 512b-4Kbit 40-year 1Mcycles	EEPROM 512b-64Kbit 60-year 100kcycles
TruST25 128bit password 20bit counter UID Field Detect	32bit counters Lock OTP bits UID	TruST25 64bit password 16-bit counter UID Tamper detect

Dynamic tags			
M24SR	M24LR	ST25DV-I2C	ST25DV-PWM
ISO14443-A 106kb/s NFC type 4	ISO15693 up to 53kb/s	ISO15693 up to 53kb/s NFC type 5	ISO15693 up to 53kb/s NFC type 5
EEPROM 2Kbit to 64Kbit 200-year 1Mcycles	EEPROM 4Kbit to 64Kbit 40-year 1Mcycles	256Bytes buffer EEPROM 4Kbit to 64Kbit 40-year 1Mcycles	EEPROM 2Kbit 40-year 100kcycles
128bit password RF disable Field Detect UID	32bit password E-harvesting Field Detect UID	Fast Transfer Mode 64bit password E-harvesting Field Detect UID	TruST25 64bit password UID
I2C 1MHz 2.7V - 5.5V	I2C 400kHz 1.8V - 5.5V	I2C 1MHz 1.8V - 5.5V	2x PWM 488 - 31250Hz 1.8V - 5.5V

HF Readers			
ST25R95 *	ST25R3911B ST25R3912 ST25R3913	ST25R3914 - ST25R3915	ST25R3916
ISO14443-A/B ISO15693	ISO14443-A/B FeliCa ISO15693 ISO18092	ISO14443-A/B FeliCa ISO15693 ISO18092	ISO14443-A/B FeliCa ISO15693 ISO18092
Reader / Writer Card Emulation	Reader / Writer P2P EMVCo & PBOC	Reader / Writer P2P AEC-Q100 grade	Reader / Writer Card Emulation P2P EMVCo & PBOC
-	VHBR AAT Multi Antenna Dynamic output power	AAT Multi Antenna Dynamic output power	AAT Active wave shaping Multi Antenna Dynamic output power
SPI & UART 2Mbit/s 2.7V - 5.5V 230mW	SPI 6Mbit/s 2.4V - 5.5V 1 - 1.4W max	SPI 6Mbit/s 2.4V - 5.5V 1W	SPI 6Mbit/s 2.4V - 5.5V 1.6W

\*: same as former CR95HF / ST95HF