

ST25 NFC NEWSLETTER

JULY 2019

N°3



SUMMARY

1. Ecosystem update - SW
2. Video/Animation
- 3-4. Events
5. Event to come

- 6-7. Press Release
8. New supporting material

ST25 FAMILY PRODUCTS ON WWW.ST.COM/ST25



ST25T

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.



ST25D

Dynamic 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.



ST25R

NFC / UHF 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.



Ecosystem Update - SW

Status : **Available**



STSW-ST25RFAL001

STSW-ST25RFAL001 is the implementation of the RF/NFC abstraction layer (RFAL) for the **ST25R3911B**. The RFAL simplifies the development of applications, provides a common interface and is available for all ST25R devices.

[Click to see more →](#)

Status : **Available**



STSW-ST25RFAL002

STSW-ST25RFAL002 is the implementation of the RF/NFC abstraction layer (RFAL) for the **ST25R3916**. The RFAL simplifies the development of applications, provides a common interface and is available for all ST25R devices.

[Click to see more →](#)

Status : **Available**



STSW-ST25RFAL003

STSW-ST25RFAL003 is the implementation of the RF/NFC abstraction layer (RFAL) for the **ST25R95**. The RFAL simplifies the development of applications, provides a common interface and is available for all ST25R devices.

[Click to see more →](#)

Status : **Available**



STSW-ST25RU001

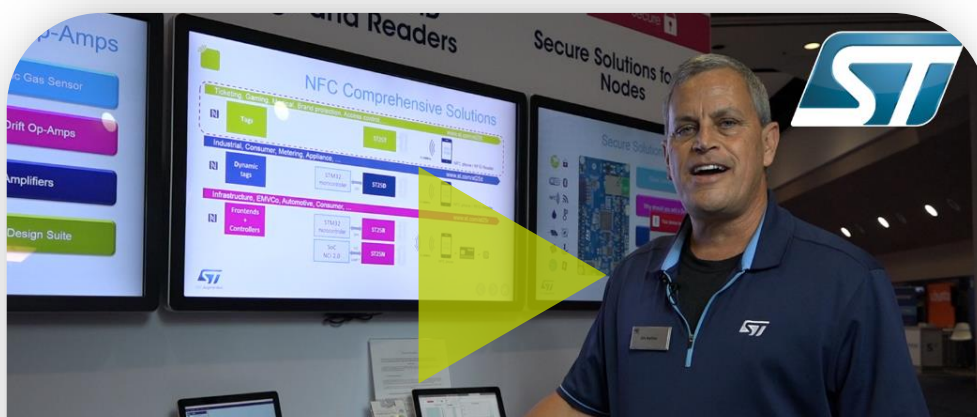
This software comprises of the **ST25RU3993** GUI which is a PC based application for Windows® platform. Version 1.7.0 comes with significant performance update regarding tag read speed and read stability : now hitting 340 tags/second read rate.

[Click to see more →](#)





New Videos/Animations



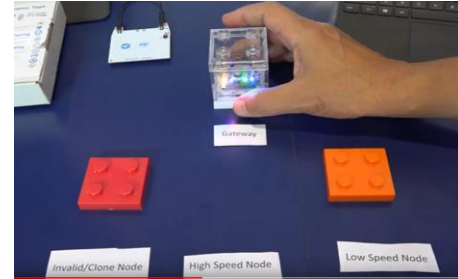
From IoT World 2019 NFC/RFID Solutions

IoT World 2019 NFC/RFID Solutions : TruST25™, the ability to control nodes and their access to Internet





Events



ST25 solutions for IoT deployment

This year, ST had a pod dedicated to NFC. Several demos were presented:

- STEVAL-SMARTAG1 combines NFC Dynamic Tag & STM32Lox1 MCU
- Reader + Tag powered by ST25TV02K
- High performance NFC/RFID Readers ST25R3916

That was the opportunity for ST25 to communicate full solutions available for IoT deployment. ST also sponsored IoT world Hackathon 2019 and provided STEVAL-SMARTAG1 as Hardware/Software solutions to be developed to solve the topic presented : the water. The IoT World Hackathon is part of the IoT World Developer Conference, where hackers connect with IoT Innovation.



Highlight on solutions for Smart Cities

For this 5th edition of Smart Cities in India, ST showed its technological prowess in the Smart City, innovative and diversified solutions to make cities more sustainable, safe & citizen-friendly.

Through over 30 technologies for Automotive, Industrial and Artificial Intelligence, ST had exposed the NFC eLock demo and ST25DV-PWM + STSPIN220 motor control through NFC demo.

The demo was attractive and several queries were made by clients. ST experts got multiple opportunities for B2B and B2C meetings and gave visitors comprehensive insight into our latest technology, products, services and solutions. The booth received a special visit from directors from the Ministry of Housing & Urban Affairs.





Events

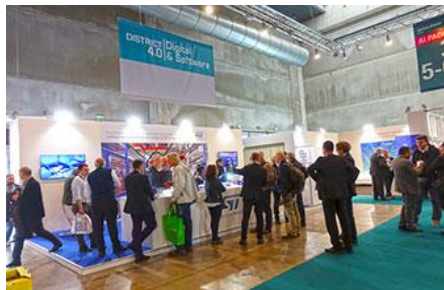
sps ipc drives

ITALIA

9th edition

Industrial Automation and Digitalisation

Parma, 28-30 May 2019



ST was at the core of Smart Industry at SPS in Parma Italy from May 28 to 30. SPS IPC Drives Italia is one of the major international exhibitions for electric automation technology. It covers not only all components, but also systems. It is one of the few exhibitions that offer integrated automation solutions

Demos focusing on factory automation

ST displayed its latest solutions in the field of factory automation and motion control. The company's objective is to become a world leader in Industrial. SPS Italy is the reference event for intelligent, digital and flexible industry. ST25 product family was represented by the ST25DV-PWM in combination with the STSPIN220 demonstrating how to drive stepper motors thanks to 256 steps for maximum accuracy with a simple and contactless RFID/NFC tag.

Automation, digital, robotics, mechatronics were the successful ingredients of the six exhibition pavilions animated by over 850 exhibitors.

ET & IoT Technology West 2019

June 13(Thu.) - 14 (Fri.), 2019

Grand Front Osaka Congrès Convention Center



ST goes to Embedded Technology & IoT Technology west from June 13th to 14th at Osaka. Embedded Technology West is a collective exhibit of the advanced embedded technologies that are evolving right now. Its sister show, IoT Technology West, covers the leading edge of "connected" technology.

ST25R3916 products highlighted

All along the show, few demos were showed to visitors. The first was Industrial Qi charger for security and safe : this demo prototype shows how quickly the handshake between wireless charging transmitter and receiver is established thanks to NFC, compared to Qi's In-band authentication.

The second demo was about NFC Reader ST25R3916 with the ST25R3916-DISCO : it consists to have ultimately a better RF performance ever to been in its communication distance with an ability to Card Emulation mode communicating with a mobile phone and can be easily integrated STM32 ecosystem using FW source code.





Events : To Come Soon !

**JULY
AUG**

- International IoT Exhibition, Shenzhen, **30- 01st**

- ST Techno Day France, Paris, **10th**
- ST Developers Conference, Santa Clara, **12th**
- Smartcard Expo, New Delhi, **25-26th**
- Electronica India, Bangalore, **25-27th**

SEPT

OCT

- IoT Korea Exhibiton & International Conference, Korea, **23-25th**





ST25 news : Blog Post

Do You Speak NFC? New Online Courses to Design for Readers and Tags

05/02/19

Click to see entire
blog post

ST25 Education



Our NFC teams just released a series of [massive open online courses \(MOOC\)](#) that will teach engineers and enthusiasts how to design for readers and tags. NFC brought great innovations to products that had no electronics until now, as a wine company that's putting our Type-5 NFC tag on its bottles can testify. And since ST was among the first to pass the Tag Certification Program and offer Type-5 devices, engineers know that the course relies on fast and feature-rich

devices engineers know that the course relies on fast and feature-rich devices that will greatly complement their project. Just ask TapNLink, a company that connects to a microcontroller through NFC and that got rave reviews thanks to its solution's incredible speed. Furthermore, as NFC continues to gain more grounds in many other markets, such as the automotive industry, as we recently explored in a Q&A, understanding how to leverage near-field communication is absolutely crucial.





ST25 news : Press Release

STMicroelectronics joins Car Connectivity Consortium 05/24/19

STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, today announced having joined the Car Connectivity Consortium (CCC), a cross-industry organization advancing global technologies for smartphone-to-car connectivity solutions.

ST's technology portfolio features many segments well suited to automotive connectivity and the aims of the CCC, including ST25 NFC readers, ST33 Secure Elements, STA12 Accordo infotainment processors, STA13 Telemaco vehicle processors, and Stellar vehicle gateway/domain microcontrollers

Already ST is a top player in the expanding market for NFC technology as a digital key and in its use as a conduit for Bluetooth and Wi-Fi pairing. In addition, ST offers a range of technologies to address wireless charging, including authentication and foreign object detection.

"Smartphones have become productivity and convenience extensions of busy professionals and consumers—whether as voice-activated personal assistants, personal wallets, or as navigators—and they are a natural and safe appliance to ID and unlock doors for the owner, adjust the seat, tune the radio, and personalize the car for their comfort and preference," said Joel Huloux, Director Standardization Microcontrollers and Digital ICs Group, STMicroelectronics.

"As a leading long-time, trusted supplier to the top players in both the smartphone and automotive industries, ST shares an interest in the mission of the CCC, which aims to make it possible and hassle-free to simply connect and ride and we've joined the group to lend our expertise and gain from the rest of the players."

CARCONNECTIVITY
consortium



*"Smartphones
have become
productivity and
convenience
extensions of
busy
professionals
and consumers
whether"*

Click to see the
entire article





New/Updated Supporting Material

FLYER

[ST25DV-I2C series](#)
[ST25TV series](#)
[ST25TA series](#)
[M24SR series](#)
[ST25R3916](#)



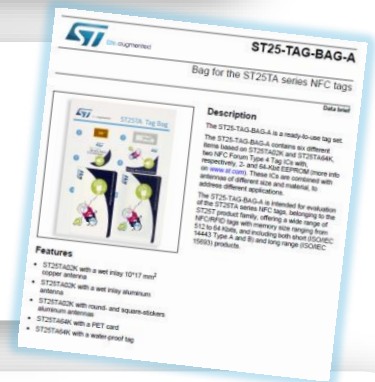
BROCHURE

[NFC Solutions from ST](#)
[Power Management Guide](#)
[TruST25 Digital Signature Authenticity](#)
[with ST25 NFC/RFID Tags](#)
[Product & Solution for Smart Industry](#)



DATASHEET/DATABRIEF

[STSW-ST25RFAL001](#) : RF/NFC abstraction layer for ST25R3911B
[STSW-ST25RFAL002](#) : RF/NFC abstraction layer for ST25R3916
[STSW-ST25RFAL003](#) : RF/NFC abstraction layer for ST25R95

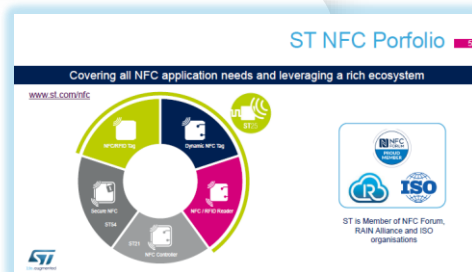


APPLICATION NOTE

[AN 4910](#) : Data exchange between wired (I²C) and wireless (RF ISO 15693) using fast transfer mode supported by ST25DVxxx
[AN 5085](#) : Cycling endurance and data retention of EEPROMs in ST25DVxxx products based on CMOS F8H process
[AN 4913](#) : Energy harvesting delivery impact on ST25DVxxx behaviour during RF communication
[AN 2972](#) : How to design an antenna for dynamic NFC tags
[AN 4974](#) : Antenna matching for ST25R3911B/ST25R391x devices
[AN 5043](#) : Layout recommendations for the design of boards with ST25R3911B/ST25R391x devices
[AN 2866](#) : How to design a 13.56 MHz customized antenna for ST25 NFC/RFID Tags

PRESENTATIONS

[ST25 product presentation](#)
[ST25R3916 product presentation](#)
[ST25DV-I2C product presentation](#)
[ST25TV product presentation](#)
[ST25TA NFC tags presentation](#)



USER MANUAL

[UM 2513](#) : Firmware for the ST25R3916-DISCO board

Please consult our ST25 NFC Workspace :

<http://best-collab.st.com/ws/MMY> and Regions.NFC.mktg/SitePages/Home.aspx





ST25 NFC/RFID

Simply more connected



Simply more connected

ST25 NFC/RFID