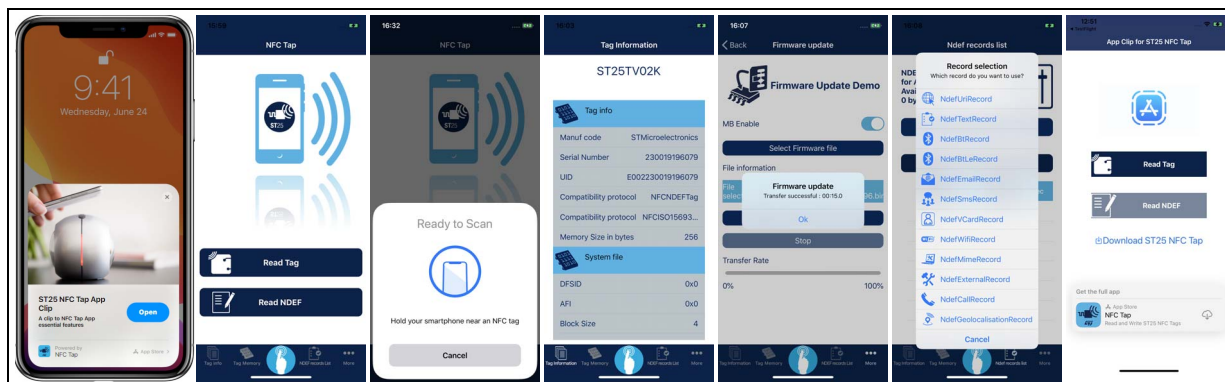## Features

- ST25 NFC Tap app clip with new NFC user experience
- Read / Write NDEF messages, NFC Forum compliant example
  - URL
  - Text, SMS and Email
  - vCard
  - Phone call
  - Bluetooth® pairing
  - Calendar event
  - Geolocation
  - URIs
  - Mime and external records
  - Custom App URI scheme "nfctap://"
- Reads and writes user memory for ST25 Type 2, Type 4A and Type 5 tags
- ISO15693 commands list user interface
- ISO14443A Type 4 and Type 2 support
- Tag information, CC file, System file (Type 2, Type 4A and Type 5 tag products) retrieval
- Password management (password authentication, tag protection)

- Specific functionalities
  - Counters, GPO control and memory area configuration
  - TruST25 digital signature
  - Tamper detect capability
  - EAS (electronic article surveillance)
  - Privacy protection
  - PWM (pulse width modulation) outputs setting and control, and register management according to tag found
  - Getting out the untraceable mode for ST25TVC tags
- Fast transfer mode demonstration with ST25DV-DISCOVERY kit
- ST25DV-PWM demonstration
- Supports every product belonging to the ST25 NFC/RFID tags and ST25 Dynamic NFC tags
- Bluetooth® pairing demonstration with ST25DV Discovery kit
- iOS App Clip support (dedicated web page at https://www.myst25.com)
- Rating and review within App
- Support of NFC background tag reading
- Automatic launch of iOS App with universal link https://www.myst25.com

For further information contact your local STMicroelectronics sales office.

www.st.com

1   Description

The NFC Tap is an Apple[®] iOS application that uses the iOS15 expanded NFC to read and write ST25 NFC tags. It allows the user to write standardized data such as URL, simple text or contacts into any tag Types from 1 to 5, and to read or display NDEF messages such as URL, text, SMS, Email, vCard (including picture), phone calls, calendar events, geolocation and any kind of URIs. This application is also dedicated to handle ST NFC Type 2 tags (ST25TN series NFC tags), ST NFC Type4A tags (ST25TA and M24SR series NFC tags) and ST NFC Type 5 tags (ST25TV and ST25DV series NFC tags).

The application embeds the app clip feature, a lightweight version of the ST25 NFC Tap that allows users to read ST25 tag informations (CC file, system file) when they hold an iPhone near an NFC tag with NDEF URL https://www.myst25.com/clip.

The application includes a demonstration dedicated to the ST25DV-I2C tag and to the ST25DV-DISCOVERY kit, it downloads a picture from the tag and displays it on the smartphone.

When tapping a ST25DV-PWM tag, the application allows the user to control the duty-cycle of ST25DV-PWM tags at a fixed frequency (500 kHz).

A section menu allows the user to send any ISO15693 commands or to read, write or update the content of any Type5 tag user memory.

The Bluetooth[®] pairing NDEF demonstration (requiring specific firmware and discovery kits) is also included in the application: it allows the user to pair an iPhone with an ST25DV-DISCOVERY kit, and to display in real time the battery and RSSI levels of the kit.

STSW-ST25IOS001 is the reference for the application and STSW-ST25IOS002 is the reference for the open source code that manages the application according to the ST25SDK software library.

2 License scheme

ST25SDK is delivered under the SLA0052 software license agreement.

The software components provided in this package come with the license schemes detailed in *Table 1*.

Table 1. License scheme

Component	Copyright	License
ST25SDK iOS	STMicroelectronics	Proprietary
iOS ST25 NFC Tap		
Apache Commons™ Lang3	Apache® Software Foundation	Apache 2.0
OpenSSL™	The OpenSSL Project	OpenSSL

3   Revision history

Table 2. Document revision history

Date	Revision	Changes
16-Aug-2017	1	Initial release.
15-Sep-2017	2	Updated *Features* and *Description*.
07-Nov-2017	3	Updated *Features*, *Description* and images on cover page.
21-Dec-2018	4	Added STSW-ST25IOS002, hence updated *Features*, *Description* and images on cover page.
17-Oct-2019	5	Updated *Features*, *Description* and images on cover page.
24-Feb-2020	6	Updated *Features*, *Description* and images on cover page.
09-Jun-2020	7	Updated *Features*, *Description* and images on cover page.
06-Oct-2020	8	Updated *Features*, *Description* and images on cover page.
12-Jan-2021	9	Updated *Features*. Added *Section 2: License scheme*.
23-Sep-2021	10	Updated *Features* and *Description*.
03-Dec-2021	11	Added support for Type 4A tags, hence updated *Features*.
21-Dec-2021	12	Updated *Features* and *Description*.

IMPORTANT NOTICE – PLEASE READ CAREFULLY