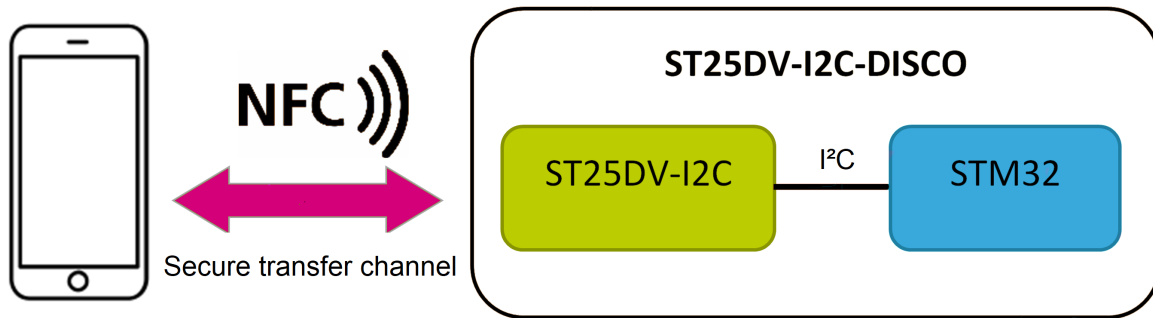


## ST25DV-I2C CryptoDemo iOS® application



## Product status link

[STSW-ST25IOS003](#)

## Features

- Encryption of all the NFC bidirectional communications between an iPhone with iOS®13 (or newer) and an STM32 microcontroller
- Fast NFC communications, thanks to ST25DV FTM (fast transfer mode)
- AES and ECC cryptography
- Mutual authentication between the iPhone and the STM32 microcontroller
- Establishment of a unique AES session key
- Encryption can be used to retrieve data, to modify device settings or to securely update the firmware

## Description

ST25DV-I2C iOS CryptoDemo application ([STSW-ST25iOS003](#)) shows how to establish a secure transfer channel over NFC between an STM32 microcontroller and an iPhone. It uses the fast transfer mode (FTM) feature of the ST25DVI2C NFC tag.

To run the demonstration an ST25DV-I2C-DISCO board (MB1396) is required. The available items are the iOS application ([STSW-ST25iOS003](#)), an STM32 firmware ([STSW-ST25DV003](#)), a user manual and an application note.

This demonstration establishes a secure transfer channel by using cryptography to perform mutual authentication and to encrypt the communications over NFC. This secure transfer channel is used during the demonstration to securely send and retrieve data, to perform the device setting, and to upload new firmwares.

Only the granted user can communicate with the STM32 microcontroller to perform those operations. All the communications are bidirectionally encrypted, so the user can configure the product or securely retrieve data.

[STSW-ST25iOS003](#) is available for free download from [www.st.com](http://www.st.com).

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
27-Jul-2020	1	Initial release.



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