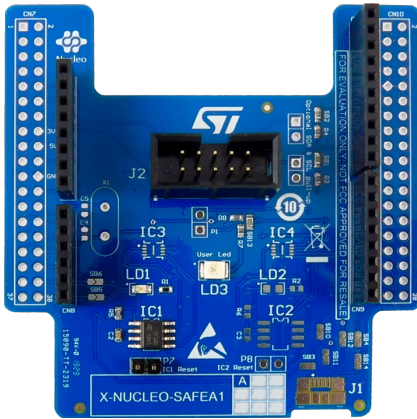


Secure element expansion board based on STSAFE-A110



Features

- On-board [STSAFE-A110](#) customized with a standard evaluation profile
- HE10 extension connector to mount additional STSAFE devices
- Arduino UNO R3 connector
- Free drivers, middleware and software samples compatible with the [STM32 ODE](#)
- RoHS and WEEE compliant

Description

The [X-NUCLEO-SAFEA1](#) expansion board is based on the [STSAFE-A110](#) secure element. It can be used with any [STM32 Nucleo](#) development board.

The on-board STSAFE-A110 is customized with a standard profile for evaluation and is compatible with the Arduino UNO R3 connector.

The [X-NUCLEO-SAFEA1](#) expansion board is used with free [X-CUBE-SAFEA1](#) or [X-CUBE-SBSFU](#) software packages containing sample code to demonstrate how to implement security applications.



Product summary	
Secure element expansion board based on STSAFE-A110	X-NUCLEO-SAFEA1
Authentication and brand protection secure solution	STSAFE-A110
Provides drivers, middleware and several code examples to demonstrate the features of the STSAFE-A110 device from a STM32 host microcontroller	X-CUBE-SAFEA1
Secure boot and secure firmware update software expansion for STM32Cube	X-CUBE-SBSFU

1 Schematic diagrams

Figure 1. X-NUCLEO-SAFEA1 circuit schematic - STSAFE-A chips

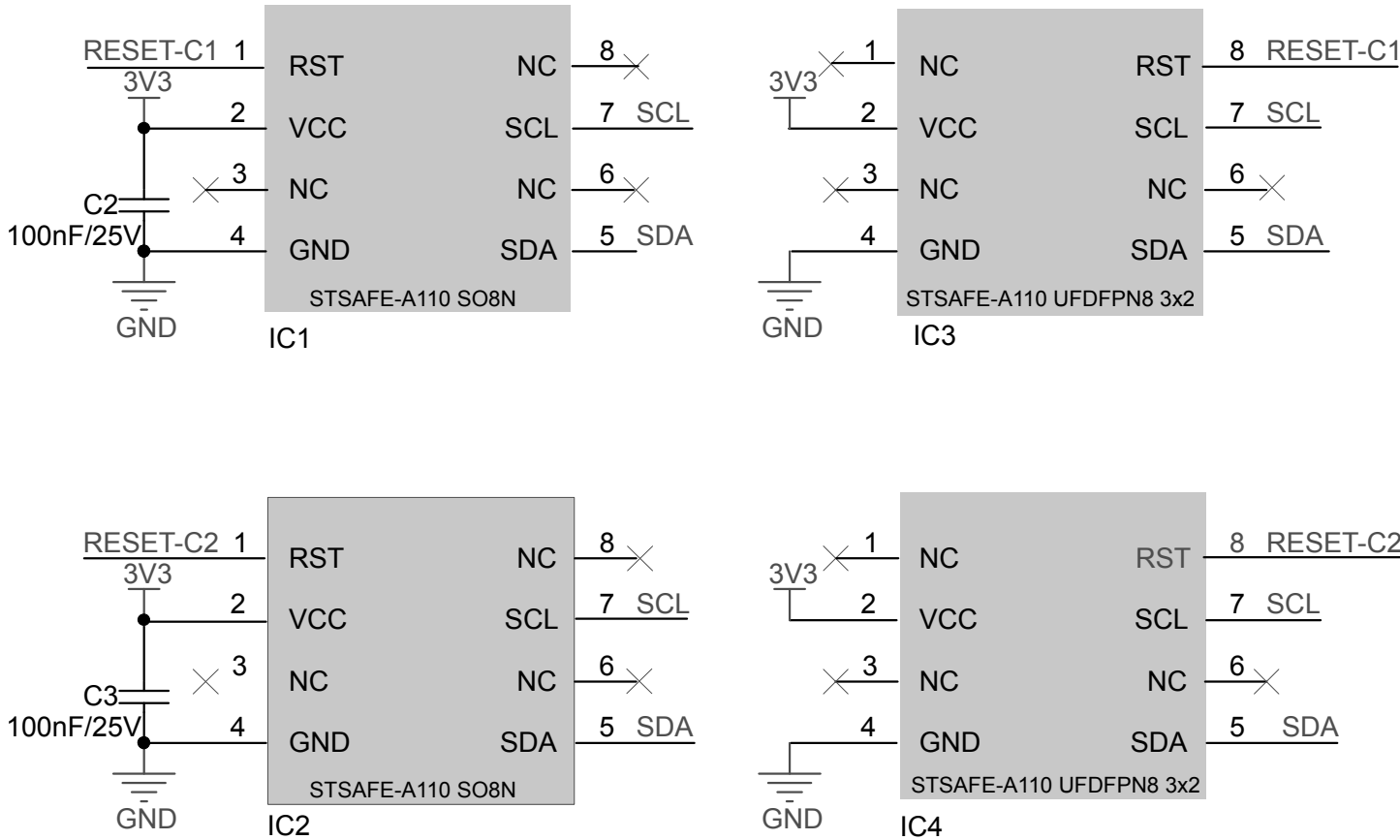


Figure 2. X-NUCLEO-SAFEA1 circuit schematic - Arduino and morpho connectors

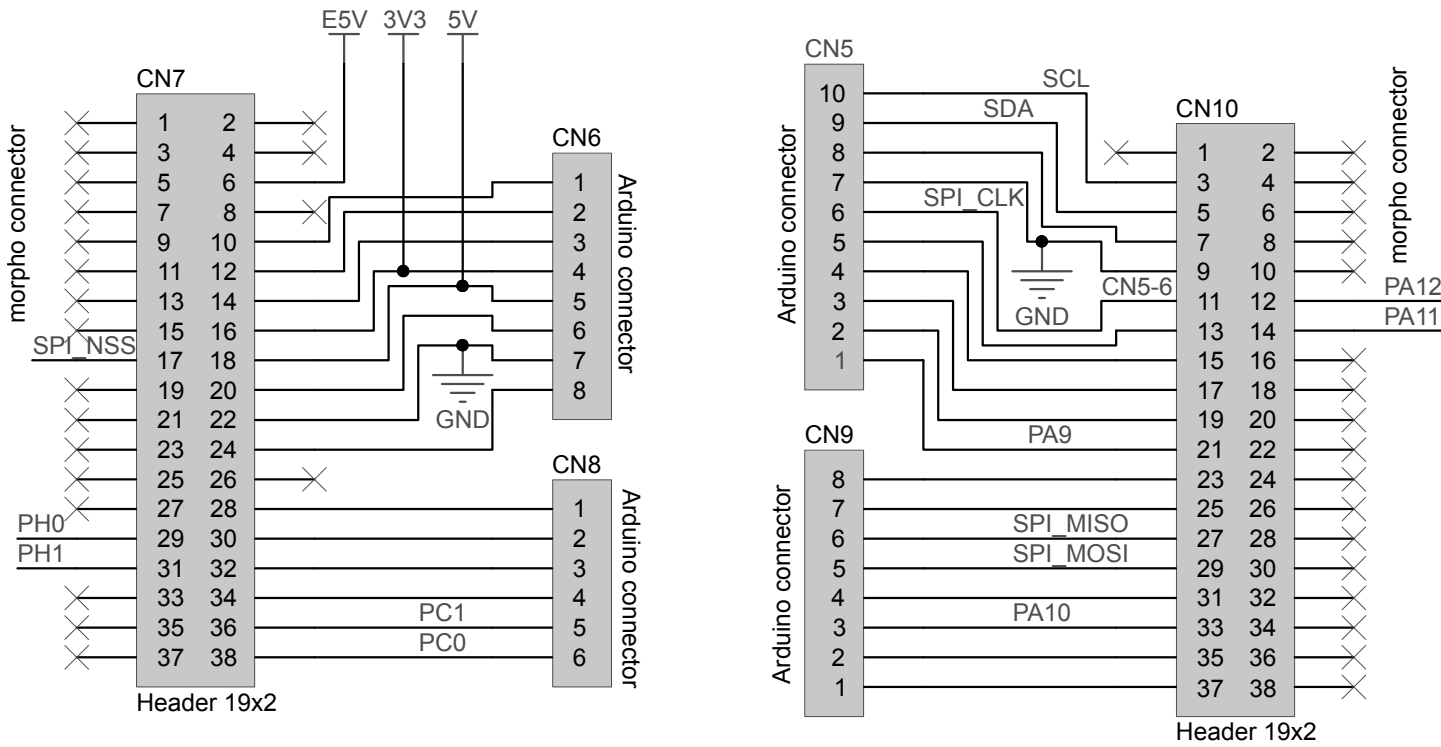
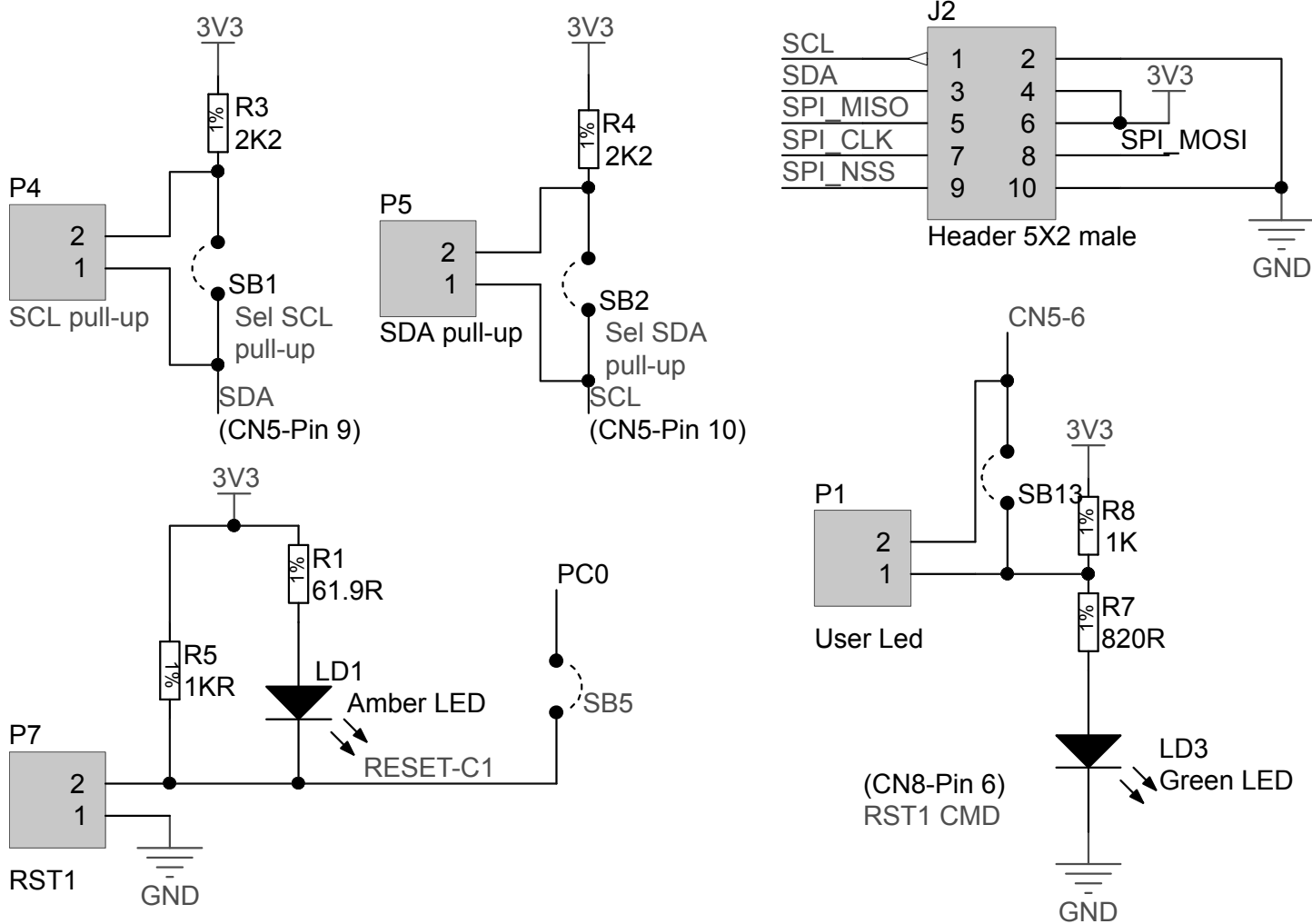


Figure 3. X-NUCLEO-SAFEA1 circuit schematic - LEDs and jumpers


Revision history

Table 1. Document revision history

Date	Version	Changes
11-Oct-2019	1	Initial release.
14-Jan-2020	2	Updated information to reflect upgraded STSAFE-A110 device Added X-CUBE-SAFEA1 software compatibility information Minor text edits