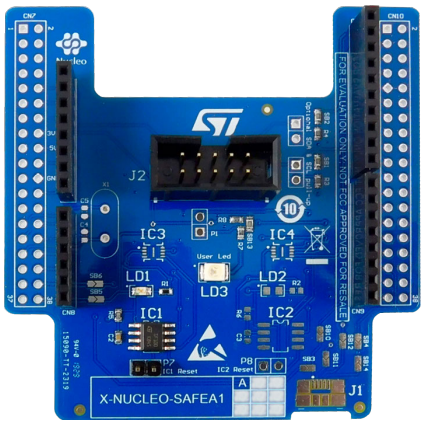
X-NUCLEO-SAFEA1

Data brief

Secure element expansion board based on STSAFE-A110



STM32 Nucleo

STSAFE-A

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**

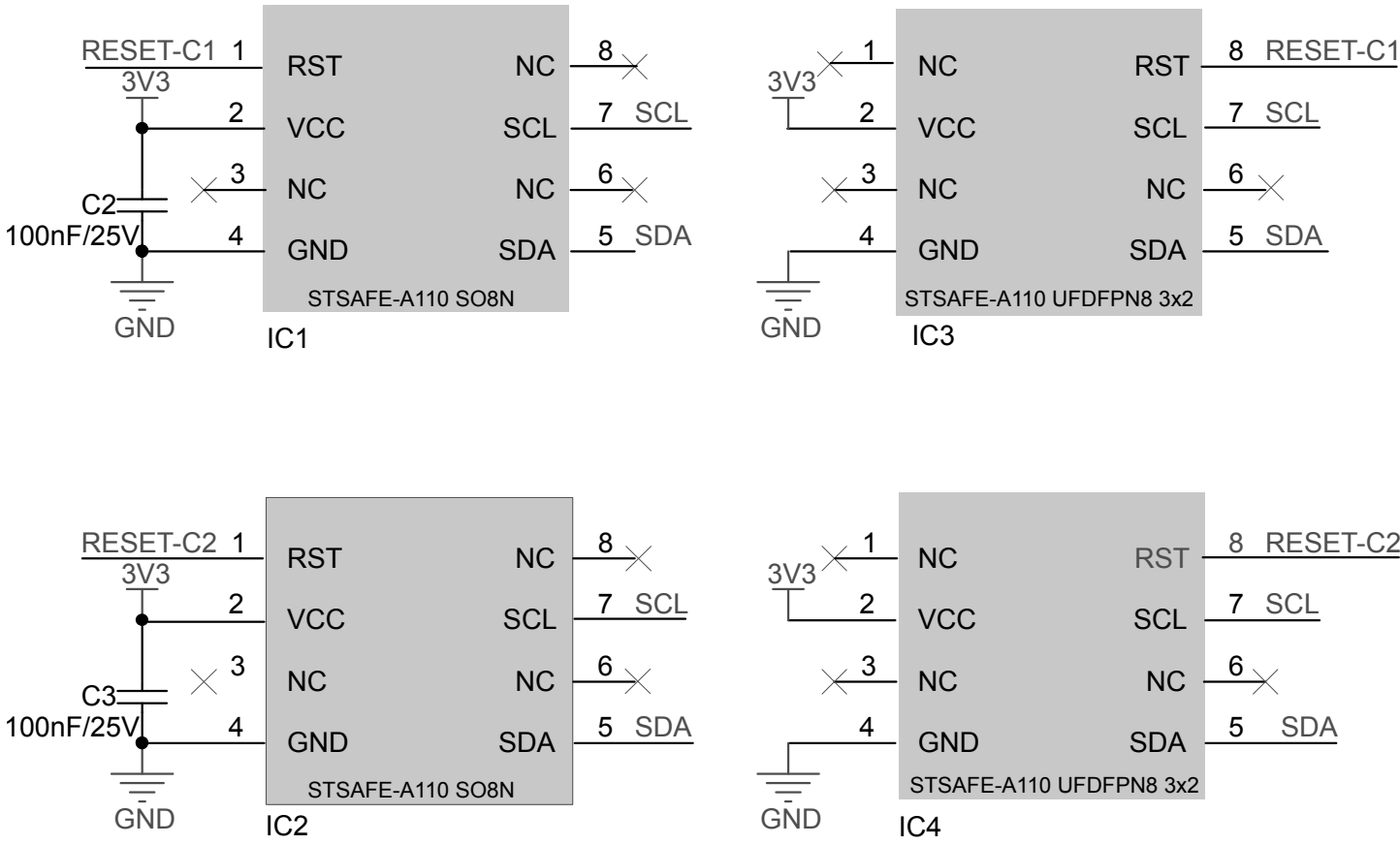


Figure 2. **X-NUCLEO-SAFEA1 circuit schematic - Arduino and morpho connectors**

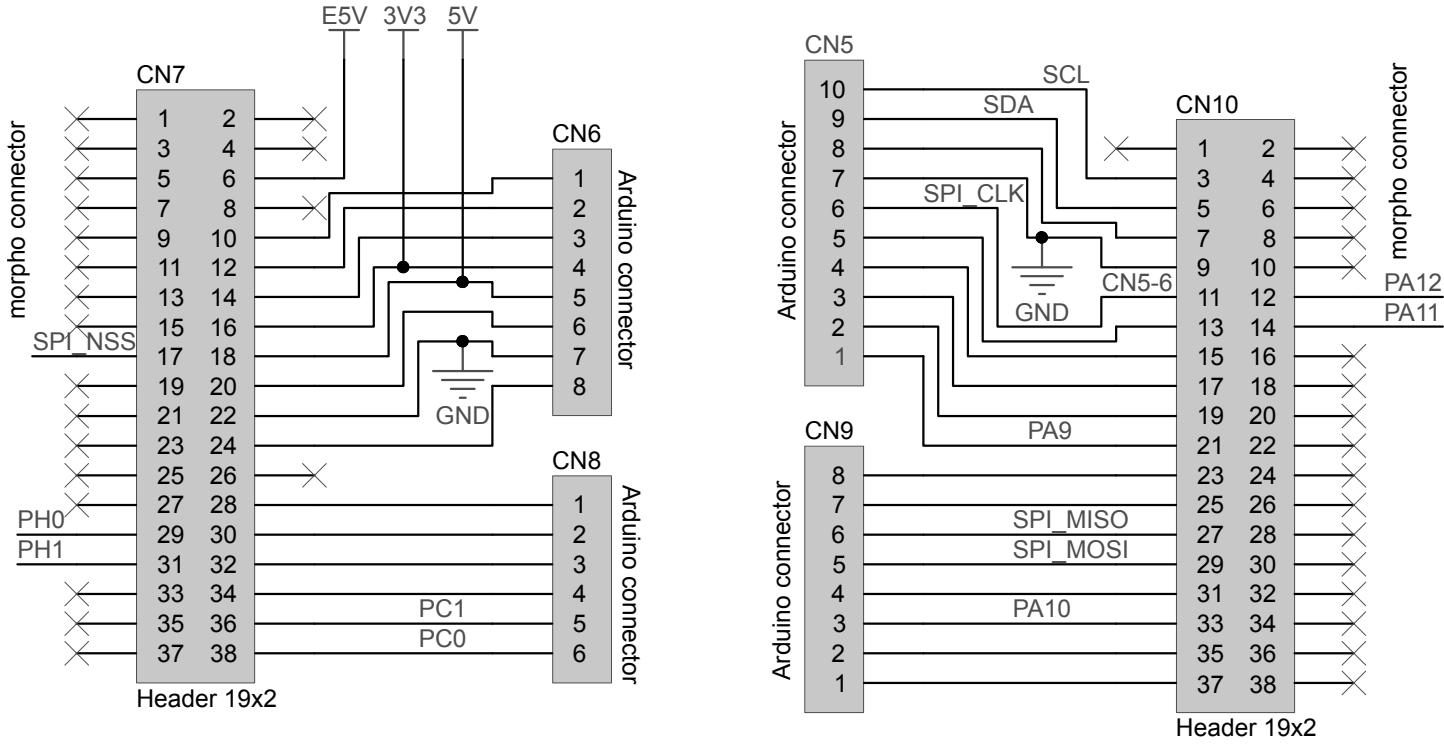
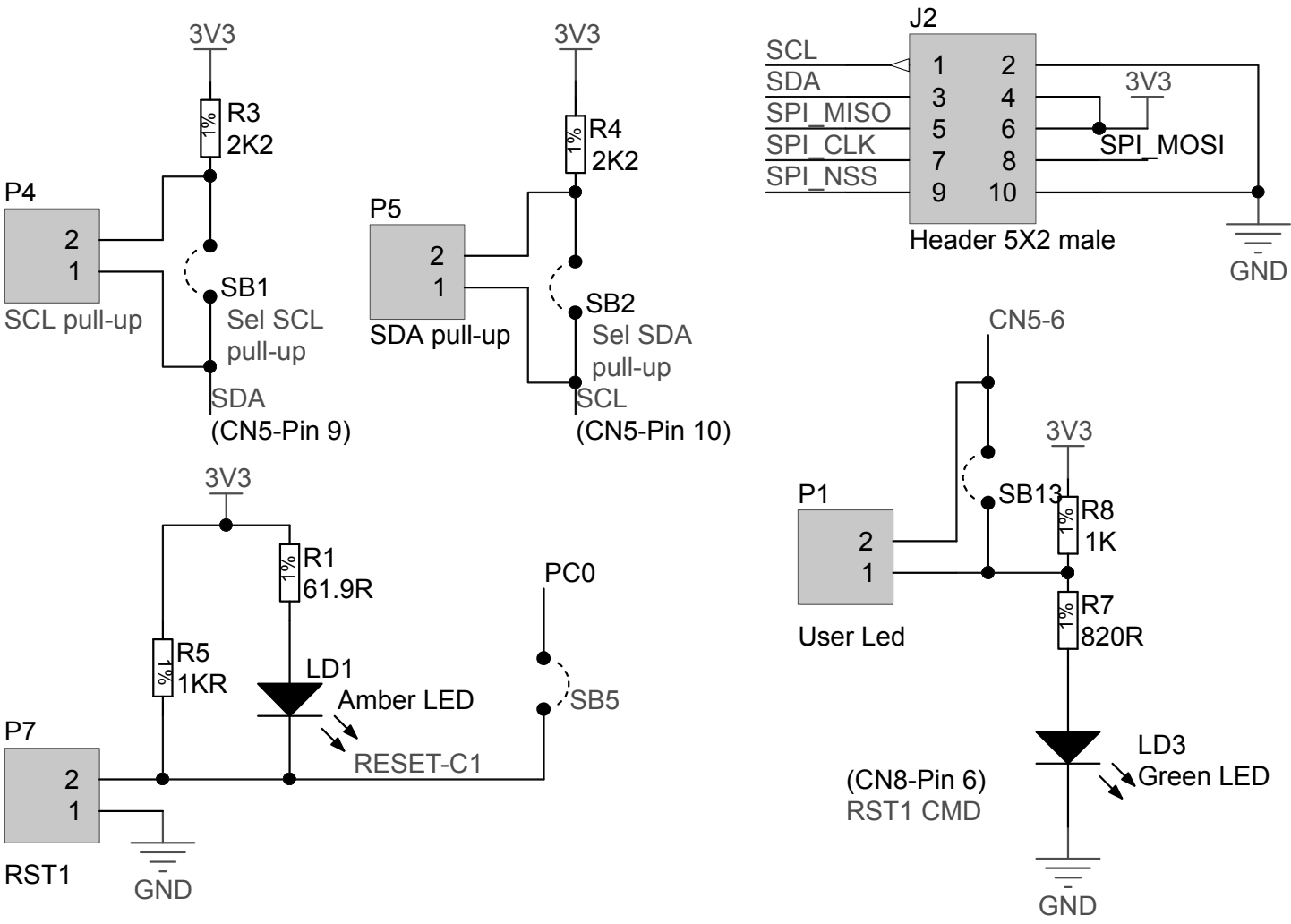


Figure 3. **X-NUCLEO-SAFEA1 circuit schematic - LEDs and jumpers**



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

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