
PC software for ST25RU3993-EVAL board

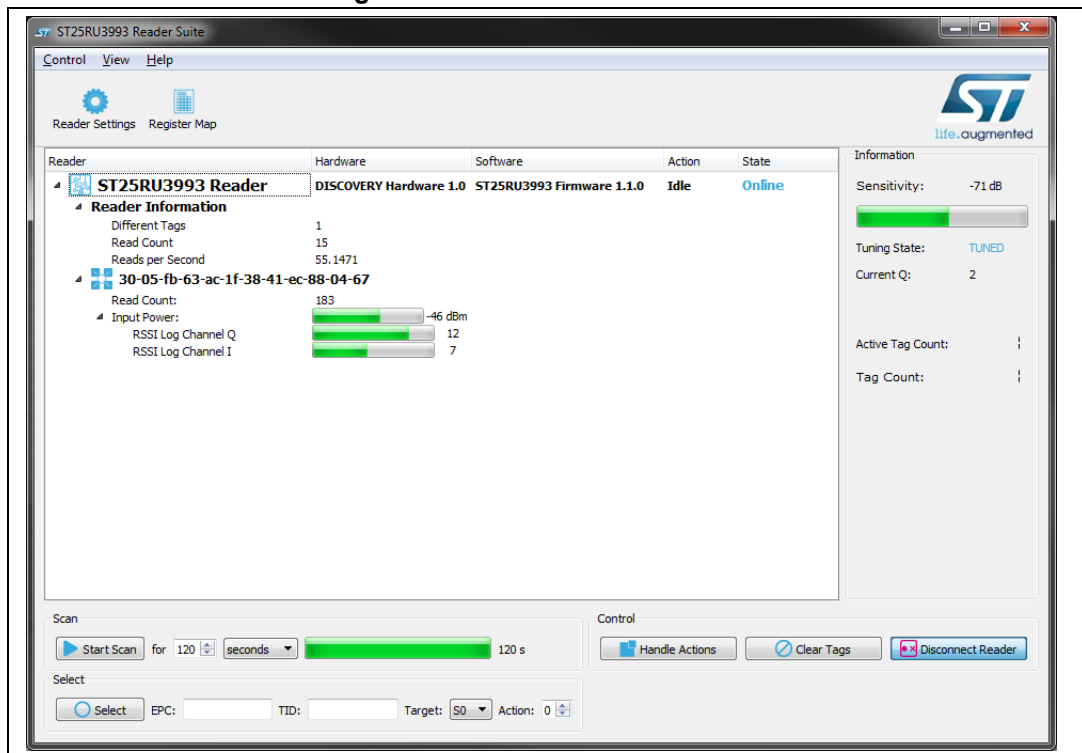
Data brief**Features**

- The ST25RU3993-EVAL board is a Gen2 compliant RAIN[®] reader demonstration board and is composed, among other parts, of an ST25RU3993 (high performance RAIN[®] reader device) and an STM32L4 microcontroller.
- The ST25RU3993-EVAL board is controlled by the PC software and connected by USB/UART bridge.
- The software supports the following RF protocols and features:
 - ISO 18000-61 in direct mode
 - ISO 18000-62 in direct mode
 - EPC Class 1 Gen2 (ISO 18000-63)
 - Carrier cancellation
 - ST25RU3993 register access
 - Inventory with auto acknowledge
 - RSSI display
 - RSSI mode selection
 - Frequency profile selection
 - Automatic supply voltage control
 - Transmit power control
 - Internal and external PA selection
 - Carrier sense mode
 - Data rate selection
 - Sensitivity control
 - Automatic antenna port switching
 - Anti-collision slot management
 - CW and continuous modulation mode
 - Direct commands
 - RSSI and reflected power sweeps
 - Tag Access
 - Generic tag command tool
 - Function assignment to tag read
 - Saving and recalling configuration
 - Gen2 crypto authenticate commands (AES128, Grain-128A)

1 Description

STSW-ST25RU001 software comprises of the ST25RU3993 GUI (Graphical User Interface), which is a PC based application for Windows® platform. It allows connecting to the ST25RU3993-EVAL board by an USB/UART bridge and controls the firmware running on the STM32L4 microcontroller. The ST25RU3993 GUI allows full control and low level access to the ST25RU3993 RAIN® Reader device and is designed to demonstrate its main functionalities and features. The ST25RU3993 GUI controls scanning for RAIN® tags and displays relevant tag information such as EPC tag, number of found tags, tag's reads per second, tag RSSI and more. Additionally the ST25RU3993 GUI provides tag access functionality to read and write EPC, user memory and access and *kill* passwords.

Figure 1. ST25RU3993 Reader GUI



2 Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|-----------------|---|
| 24-Aug-2017 | 1 | Initial release |
| 02-Oct-2017 | 2 | Changed all occurrences of “ST25RU3993-DISCO board” by “ST25RU3993-EVAL board” Updated Figure 1: ST25RU3993 Reader GUI . |
| 01-Apr-2022 | 3 | Updated Features . |

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